Planning Africa 2014
Making Great Places

Foreword

“It always seems impossible until it’s done.” - Nelson Mandela

This message resonates well with our theme for this conference and with the mammoth task that faced us in preparing for the conference.

This is the 6th Planning Africa conference hosted by the South African Planning Institute. The conference is well established as a key knowledge exchange platform for the Planning fraternity, and focuses on “Making Great Places” from a policy, practitioner and case-study perspective.

To keep the conference deliberations alive, we have produced a toolkit as part of the proceedings of this conference to allow for all participants in the conference and for the public to engage further with the theme of “Making Great Places” and to take the debates to a practical level with people on the ground, both communities and practitioners, who shape and create Great Places.

We received 131 abstracts, of which 40 were finally accepted for including in the proceedings. Papers and presentations were received in two tracks, namely academic and industry. The bar was raised considerably with abstracts and papers having gone through a rigorous upfront peer review process. In the years to come, we hope to continue the intellectual debates with a journal for the Planning Profession linked to the theme of Making Great Places.

I thank all the contributors for their time and effort in putting together papers and presentations for Planning Africa 2014.

My gratitude goes out to all our partners and sponsors and those involved in the organizing and programme committees, and in the peer review system especially all the peer reviewers both local and international. The University of Johannesburg requires a special mention for their support and in particular Mr Aurobindo Ogra for his commitment and effort in driving the peer review process as well as the conference proceedings publication.

A special thanks as well to Ms Karuna Mohan and Ms Cornelia van der Bank who served on the small Programme sub-committee that did a sterling job with packaging an exciting programme that will highlight the different paper submissions in combination with special invited guest speakers.

Yusuf Patel
SAPI President
Planning Africa 2014 Programme Committee

A special thank you to all the members of the organising committee for a job well done

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yusuf Patel</td>
<td><strong>Planning Africa 2014 Conference Chairperson</strong></td>
</tr>
<tr>
<td></td>
<td>President: South African Planning Institute (SAPI)</td>
</tr>
<tr>
<td>Nthato Minyuku</td>
<td><strong>Planning Africa 2014 Conference Co-Chairperson</strong></td>
</tr>
<tr>
<td></td>
<td>Convenor: African Planning Association (APA)</td>
</tr>
<tr>
<td>Cornelia van der Bank</td>
<td><strong>Conference Organising Committee</strong></td>
</tr>
<tr>
<td></td>
<td>Chief Executive Officer: South African Planning Institute (SAPI) (Chairperson)</td>
</tr>
<tr>
<td>Mark Faku</td>
<td>Chairperson: SAPI Kwa Zulu Natal (Liaison)</td>
</tr>
<tr>
<td>Itumeleng Nkoane</td>
<td>Chairperson: SAPI Gauteng (Social Media)</td>
</tr>
<tr>
<td>Jessica Katz</td>
<td>Committee member: SAPI Western Cape (Planning Awards)</td>
</tr>
<tr>
<td>Mari Rossouw</td>
<td>Chairperson: SAPI Free State/Northern Cape South (Planning Awards)</td>
</tr>
<tr>
<td>Peter Gilmore</td>
<td>Senior Project Manager: eThekwini Municipality (Technical Tours)</td>
</tr>
<tr>
<td>Geci Karuri-Sebina</td>
<td>Executive Manager: Programmes: South African Cities Network (Secretariat)</td>
</tr>
<tr>
<td>Karuna Mohan</td>
<td>Chairperson: Khanya – African Institute for Community Driven Development (Programme)</td>
</tr>
<tr>
<td>Aurobindo Ogra</td>
<td>Department of Town and Regional Planning Faculty of Engineering and the Built Environment University of Johannesburg (Academic &amp; Peer Review Chair)</td>
</tr>
</tbody>
</table>

**Scientific Committee**

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ahmedi Vawda</td>
<td>Monitoring Unit: Presidency responsible for Outcome 8: Human Settlements</td>
</tr>
<tr>
<td>Ashraf Adam</td>
<td>Planning and Economic Development: Drakenstein Municipality</td>
</tr>
<tr>
<td>Frandri Smith</td>
<td>National Department of Public Works</td>
</tr>
<tr>
<td>Gill Lincoln</td>
<td>Durban University of Technology</td>
</tr>
<tr>
<td>Glynn Davies</td>
<td>Development Bank of Southern Africa</td>
</tr>
<tr>
<td>Prof. Karina Landman</td>
<td>University of Pretoria</td>
</tr>
<tr>
<td>Maria J Coetzee</td>
<td>CSIR : Built Environment</td>
</tr>
<tr>
<td>Martin Lewis</td>
<td>The South African Council for Planners</td>
</tr>
<tr>
<td>Peter Dacomb</td>
<td>South African Association of Consulting Professional Planners (SAACPP)</td>
</tr>
<tr>
<td>Prof. Alison Todes</td>
<td>University of the Witwatersrand</td>
</tr>
<tr>
<td>Prof. Verna Nel</td>
<td>University of the Free State</td>
</tr>
<tr>
<td>Kabir Yari</td>
<td>National President: Nigerian Institute of Town Planners</td>
</tr>
<tr>
<td>Said Almi</td>
<td>Algerian Planners Association</td>
</tr>
<tr>
<td>Waheed Kadiri</td>
<td>African Planning Association (APA)</td>
</tr>
</tbody>
</table>
**Peer Review Process**

The papers published in the conference proceedings followed a rigorous double blind peer review process. The abstracts received were screened and shortlisted by programme organizing and scientific committee in terms of: relevance, purpose and significance to conference theme and objectives. Based on the rigorous peer review process the authors of the selected abstracts were invited to submit full papers.

All full papers received followed a double blind peer review process by a review panel comprising of national and international domain experts in the planning and built environment field. Based on the double blind peer review outcome only selected and revised full papers were published in the conference proceedings (ISBN: 978-0-9921820-0-7).

Out of 131 abstracts received, only 40 papers were finally accepted for inclusion in the proceedings after a rigorous double blind peer review process – with an acceptance rate of 31%. A minimum score of 3 out of 5 allocated by peer reviewers was required for papers to be included in the proceedings. Papers having score of 2 out of 5 but not rejected by the reviewers were invited to submit revised papers subject to major revisions and review.

The opinions expressed in this proceedings are entirely those of the authors, unless otherwise stated. While efforts were made to ensure accuracy in this publications, the Editors, SAPI or the associated partners and endorsers does not accept any legal responsibility or liability in whole or part for any errors or omissions that may have occurred in the proceedings.
Peer Review Panel

The support from national and international experts on peer reviewing of abstracts and full papers is highly acknowledged. Without their support the completion and publication of proceedings on time would not have been possible. The following is the list of national and international experts who provided peer review support for Planning Africa 2014:

- Alka Ramnath, Umgeni Water, South Africa
- Aurobindo Ogra, University of Johannesburg, South Africa
- Cornelia van der Bank, South African Planning Institute, South Africa
- Desiree Sehlapeolo, UNISA, South Africa
- Dr Mutakela Minyoi, University of Botswana, Botswana
- Frandri Smith, Department of Public Works, South Africa
- Gill Lincoln, Durban University of Technology
- Jesicca Katz, South African Planning Institute
- Karuna Mohan, Khanya – African Institute for Community Driven Development (Programme)
- Maartje Weyers, South African Planning Institute
- Nthato Minyuku, South African Planning Institute
- Prof. Alison Todes, University of Witswatersrand
- Prof. Das Steyn, University of Free State
- Prof. Karina Landman, University of Pretoria
- Prof. Mahendra Umare, Nagpur Institute of Technology (NIT), India
- Prof. Peter Robinson, Peter Robinson and Associates
- Prof. Shanker Seetharam, Centennial College, School of Business, Canada
- Prof. Verna Nel, University of Free State, South Africa
- Said Almi, Algerian Association of Planners & French Society of Planners,
- Waheed Kadiri, African Planning Association (APA),
Table of Contents

Creating Great Places Through Collaborative Efforts: Re-Defining the Role of Railway Corridors and Nodes: Sisa Maboza .......................................................................................................................... 9

Housing Policy Implementation Versus Municipal Capacity: The Case of uMshwathi Local Municipality: Ashley Hay, Dr. Malene (MM) Campbell ................................................................. 24

From Spaces to Lively Places: Dr. E.J Cilliers ........................................................................ 37

Customary Land Conflicts in Peri-Urban Areas of Botswana: Perceptions of Rights Holders: Kele M. Rammapudi, Dr. Mutakela Kingsley Minyoi ........................................................... 50

Generating New Knowledge with and in a Community Setting: Nicholas Pinfold .................. 67

Collaborating and Partnering for the “Invisible” in Great Places: Experiences and Lessons Learnt for Regional Infrastructure Planning: Alka Ramnath, Aalia Kajee ........................................... 78

Citizenship and Access to Housing in Emerging Communities in Mangaung: Thulisile Ncamsile Mphambukeli ......................................................................................................................... 108

Exploring Flexible Governance Models for Resilience: the Merger of the Environment and Infrastructure Departments in the City of Johannesburg: Costanza La Mantia ................................................................. 121

Evaluation of Control Parameters for Smart Mobility in the Context of a South African City- A Case of Bloemfontein City: Dr Dillip Kumar Das ........................................................................ 138

Streets as Great Public Places in Tshwane: the Influence of Connectivity: Darren Nel, Dr. Karina Landman .......................................................................................................................... 152

Informal Settlements as Great Places: Johru Robyn ................................................................ 170

The Bright Lights of City Regions – Assumptions, Realities and Implications of Changing Population Dynamics: Zooming in on the Gauteng City Region: Amy Pieterse, Elsena van Huyssteen, Gerbrand Mans, Johan Martiz, Willemien Faling ........................................................ 187

Measuring Access to Primary Health Care: Use of a GIS-Based Accessibility Analysis: Hunadi Mokgalaka .............................................................................................................................. 217

Reblocking as an Attempt at Reconfiguring and Improving Socio-Economic Conditions in Informal Settlements: The Case of Mtshini Wam, Cape Town: Thandeka Tshabalala, Sizwe Mxobo ........ 240

Planning, Anti Planning and Furure of Cities- The African Context: Dr Dillip Kumar Das ........ 251

Confronting the Power of the Babblers and the Billionaires is necessary to make South Africa a Great Place: Prof. Das Steyn ....................................................................................................... 267

Making Great Places through the Right to the City: A South African Perspective: J.I (Anneke) Muller ................................................................................................................................. 279


The Changing Form and Function of the Inner City of Central Lagos: Implication for Sustainable Great City: Dr. Pauline Adebayo, Oyebamiji Okesoto ....................................................... 342
Revitalising the Public Open Spaces in the CDB of Pietermaritzburg to Immortalize a Great Place: *Dumisani N. Ndaba, Dr. Karina Landman* .......................................................... 433

Building Resilience, Building Society: Assessing Climate-Readiness in Cape Town: *Marina Joziopic, Prof. Larry Swatuk, Prof. Carrie Mitchell* .......................................................... 508

A Place-Based Approach to Spatial Transformation: A Case Study of Transit Oriented Development (TOD), Johannesburg: *Robert Ndebele, Aurobindo Ogra* .......................................................... 452

The Impact of the Legislations Used to Regulate Spatial Planning and Land Use Management in South Africa: *Nokhukanya Dlamini, Dr. Walter Musakwa* .......................................................... 558

A Comparative Study of Overcrowding and its Impact on Basic Urban Facilities in Hillbrow and Alexandra: *Fezile Felicity Mkhabela, George Okechukwu Onatu* .......................................................... 606

Towards the Development of National Land Use Classification Framework for South Africa: *Cecilia Njenga, Mac Mashiri, Peter Njenga, James Chakwizira, Maartin Friedrich, Sunday Ogunronbi* .......................................................... 624

A Place is not Great, not Until its User Perceives it as Such: *Magdeline Tsotetsi, Johan Olivier (Non-Academic Peer Review Track Paper)* .......................................................... 672

Enhancing Environmentally Quality Settlements through Eco-Sensitive Infrastructure Interventions: *Shian Saroop, Dhiren Allopi (Non-Academic Peer Review Track Paper)* .......................................................... 679

Great African Places: Approach to Spatial Form and Green Spaces: *Z.I Jeeva, Dr. E.J Cilliers* .... 421

Great Places – Through Integrated Planning: *Kayom Wilson, Christopher Cripps* .......................................................... 490

A World Class African City: Reflections on the City of Johannesburg’s Place Brand: *Zenzile Mninza, Eric Nyembezi Makoni* .......................................................... 518

Building Resilience, Building Society: Assessing Climate-Readiness in Cape Town: *Marina Joziopic, Prof. Larry Swatuk, Prof. Carrie Mitchell* .......................................................... 508

The Impact of the Legislations Used to Regulate Spatial Planning and Land Use Management in South Africa: *Nokhukanya Dlamini, Dr. Walter Musakwa* .......................................................... 558

A Comparative Study of Overcrowding and its Impact on Basic Urban Facilities in Hillbrow and Alexandra: *Fezile Felicity Mkhabela, George Okechukwu Onatu* .......................................................... 606

Towards the Development of National Land Use Classification Framework for South Africa: *Cecilia Njenga, Mac Mashiri, Peter Njenga, James Chakwizira, Maartin Friedrich, Sunday Ogunronbi* .......................................................... 624

Are We Parked, Giving Way or Negotiating the Curve of Rural Development: Implications of the State of Rural Transport Research in South Africa for Planning, Policy and Development Choices: *James Chakwizira, Peter Bikam, Mac Mashiri* .......................................................... 646

A Place is not Great, not Until its User Perceives it as Such: *Magdeline Tsotetsi, Johan Olivier (Non-Academic Peer Review Track Paper)* .......................................................... 672

Enhancing Environmentally Quality Settlements through Eco-Sensitive Infrastructure Interventions: *Shian Saroop, Dhiren Allopi (Non-Academic Peer Review Track Paper)* .......................................................... 679
Creating Great Places Through Collaborative Efforts: Re-Defining the Role of Railway Corridors and Nodes

Sisa Maboza
Rail Planner
Passenger Rail Agency of South Africa
1040 Burnett Street, Hatfield, 0063, South Africa
Fax: +27-86-6288774; Email: smaboza@prasa.com

Abstract

The debate about whether transport planning and infrastructure development should precede spatial / land use planning and development is an on-going one, despite numerous government policies that seek to promote integrated planning and development. This paper seeks to strike the balance between land use and transport planning. It is being presented from the perspective of long-term passenger rail planning as it relates to land use planning. It demonstrates, through analysing some international case studies, how Transit-Oriented Development (TOD) has been employed as a strategy to address urban issues related to both land use and transport. The focus will be on areas that have demonstrated the integration of land use with public transport corridors in the creation of liveable and optimally functioning urban areas. The paper then focuses on the kind of interactions and enabling spatial environments that are necessary for the success and sustainability of TOD. Here, the paper focuses on the tested intergovernmental interaction between the rail authority and municipalities in South Africa. The limited collaboration between these authorities is recognised as a step towards the full integration of all relevant stakeholders in the creation of urban spaces. Lastly, the paper proposes parameters for consideration in the development of TODs and transforming railway precincts into vibrant urban environments.

Keywords: Transit-Oriented Development; Transport Planning; Urban Planning; Railway Planning; Integrated Planning

1. INTRODUCTION

Urban places are created by a number of interacting factors. This paper argues that these factors are equally important with specific focus on the collaboration between transport planning and spatial / land use planning. The conceptualisation of the paper has been shaped by the following context: one, the need to improve the environments around railway stations and two, the on-going debate about whether transport planning and infrastructure development should precede spatial / land use planning and development, despite numerous government policies that seek to promote integrated planning and development. This paper contends that the ideal urban place cannot be created by aligning the plans of various disciplines, but rather through the integration of those plans. Furthermore, there is thinking that South African legislation has not created an appropriate enabling environment for Transit-Oriented Development (TOD) to be implemented. This paper seeks to strike the balance between land use and transport planning, while focusing on TOD as a vehicle through which urban spaces could be shaped. It is being presented from the perspective of long-term passenger rail planning as it relates to land use planning.

1.1 Problem Statement

The environments around railway stations are not “great places”; they are sterile spaces that fail to attract desirable land uses and associated private investment. There is a need to re-define the role of these environments within the urban space. This can be done through the
collaborative efforts of various role-players. The collaborative efforts also require further definition.

1.2 Layout of the Paper

The paper will draw from international experience and theory to demonstrate the possibilities for creating urban spaces through collaborative efforts, with reference to failed as well as successful efforts. The review of related literature and the research analysis will draw from international experience. Case studies in the South African context where the collaborative efforts are beginning to yield positive results will be considered. These cases will form part of the research contribution because their development was part of the writer’s experiment with collaboration.

2. LITERATURE REVIEW

In order to establish a theoretical basis for Transit-Oriented Development (TOD), selected related literature has been reviewed. The main focus of the literature review has been the theoretical frameworks and discourses that led to the conceptualisation of TOD and how these have evolved over time. It is not intended that this section will be as comprehensive as one prepared for an academic thesis; the intention is to create a theoretical background to the concept and its application.

2.1 Review

The concept of TOD was codified in the late 1980’s and defined as a mixed-use development that encourages people to live near transit services and to decrease their dependence on driving (Calthorpe, 2002). Burke and Brown (n.d.) define TOD as a development form that seeks to use the location of future development to influence regional travel behaviour. Wilkinson (2006) interprets TOD as having the following features: moderate to higher density human-scaled development with an open-grid road network, centred on a rail or bus transit station and extends to an easy walking distance of 400-800m. Although there are varying definitions of TOD, Cervero, et al (2002) outline the following common elements: Mixed-use development, Development that is close to and well-served by transit, Development that is conducive to transit riding, Compactness, Pedestrian- and cycle-friendly environs, Public and civic spaces near stations, as well as Stations as community hubs.

While the concept was much older than the branding, its branding highlighted the interdependence of transport and the built environment. Some may argue that TOD is primarily “real estate” and secondarily “transport”. This view may well be correct, depending on the ideological, theoretical and discourse-specific perspective. From the perspective of a public transport operator, the point of departure is making sure that there is sufficient support for the public transport service being provided. This has an element of proactively influencing travel behaviour in favour of public transportation. This point of departure places transport before real estate. This paper moves from this perspective; it places transit at the centre of “orienting” real estate development. TOD neighbourhood residents are more likely to use public transport services easily accessible to them, increasing ridership levels and improving levels of operating cost recovery through fare collection. Now that this has been established, the historical development of TOD can be tackled.

While TOD is an urban planning tool, it would be erroneous to divorce it from transport planning. Arguably, TOD is a (public) transport planning tool as well, and should, in fact, be used as a tool for promoting public transport usage rather than merely meeting urban design ideals. According to Burke and Brown (n.d.), TODs are one land use planning intervention that creates the potential for populations to make shorter journeys and to make mode shifts away from the private motor car and towards walking, cycling and public transport. TOD, as a planning tool does not solely belong to one discipline; it “represents an integrated approach to transportation and land use planning”
Schlossberg and Brown (2004: 34). It is evident that travel patterns are influenced by the location and design (including density, land use mixing and connectivity) of developments. In the context of rail planning, especially where the implementation priorities of proposed corridors is unknown, influencing land use for the benefit of rail development and usage becomes all the more critical.

Throughout the history of transit, real estate development has been a key component of its planning (Carlton, 2007). According to Ditmarr and Ohland (2004) transit related development was characterised as “development-oriented transit” in the early twentieth century, placing transit first as an enabler for real estate development. In fact, the urban planning concept of the early 1900’s focussed primarily on real estate development with rail as the primary conduit between developed areas. The development of the rail network increased the development potential of new areas and made connectivity possible.

Discussions on and aspirations about TOD often focus on increased residential densities around transit stations. There is, however, evidence that the kind of real estate development around transit stations is largely influenced by the inclination of local governments and their fiscal objectives (Boarnet and Crane, 1995). Some local governments prefer developments that result in a significant increase in their tax base, such as commercial development. Residential development might not be the preferred kind of development. Empirical studies of zoning trends have found that “municipalities appear to favour commercial development near rail stations over high density residential development” (Boarnet and Crane, 1995: 23). While this might be true for many cases, it is important to note that the locational dynamics of areas surrounding transit stations should determine the appropriate TOD initiative. The destination or origin nature of an existing transit station is an important informant to the decision of whether a TOD should focus on commercial or residential land uses. Other informants such as the need to influence travel behaviour should also be considered. For instance, if the intention is to encourage passenger, rather than commuter usage of the transit system, appropriate land uses will be identified to encourage travel patterns throughout the day, instead of during morning and afternoon peak periods.

The increase in private vehicle usage affected transit ridership to the point where transit agencies required large operating subsidies. This opened the way for a new form of transit oriented development. According to Carlton (2007), transit agencies created leasing departments and partnered with developers in leveraging their property portfolio. During the 1970’s and 1980’s, lease revenues were meant to cover transit operational costs. It was during this period that the relationship between transit ridership and the intensity of development near transit stations was fully recognised. New York was a case in point where the densities were higher and were producing positive synergies around transit stations.

The real catalyst for bringing TOD to maturity was a research done in Portland Oregon (Carlton, 2007), which intended to find a solution that promoted development patterns that reduce land consumption, vehicle trips and air pollution. The “green agenda” sets the stage for the revival of transit-oriented development and the related increase of densities around public transport systems. Throughout Transport Policy, statements are made about the increase in the gaseous emissions and the increase in the usage of public transportation as a solution.

Despite the assertion that TOD increases public transport usage, this has not been realised in all places where TODs have been implemented. This has meant that public transport operators have not based their implementation decisions entirely on TODs. This shortcoming can be addressed by using analytic models that combine land use data with household travel survey data, employ complex modelling techniques including travel demand modelling and modal assignment modelling, and provide detailed outputs (Burke and Brown (n.d.). Cervero, et al (2002) highlight the following reasons for the failure of some TOD initiatives: (i) Unrealistic market expectations; (ii) a downturn in the real estate market; as well as (iii) stagnant growth in rail-served corridors.

In outlining the pre-requisites for the success of TOD, Cervero, et al (2002) highlight the need for the public sector to lead and champion TODs. Some of the TOD successes referred to, combine mixed-use, residential and retail uses with pedestrian circulation. According to Schlossberg and
Brown (2002) a pedestrian focus is one of the key criteria for TOD success. Knight and Trygg, cited in Cervero, et al (2002: 10) bring to the fore one of the most important pre-requisites for TOD success, “carefully crafted collaboration between the many individuals, organisations, and institutions with vested interests in outcomes, including developers, lenders, transit agencies, local and regional planning organisations, and public interest groups”.

2.2 Conclusions

Literature records the failure to implement TOD as envisaged or intended. Some of the reasons for the failure are quite clear. Experienced failure presents an opportunity for exploring new avenues in order to find solutions. The context of the Passenger Rail Agency of South Africa (PRASA) alone creates fertile ground for advancing the TOD agenda. One of the activities of PRASA is the constant interaction with Local Authorities. An important aspect of this interaction is the engagement on future rail corridors that link developed areas across vast areas of undeveloped land. Clearly, there is scope for decisions about what land uses and densities must precede the implementation of these future rail proposals. It is at this point that the discussion on the protection of proposed railway reserves meets the discussion on TOD.

3. OBJECTIVES / RESEARCH QUESTIONS

TOD is regarded as an important structuring mechanism that has the potential of transforming railway station precincts into positive urban spaces within the urban fabric, instead of being unproductive and sterile environments. The investigation starts from the premise that TOD as defined in theory and applied in practice, has not been fully explored within the context of South Africa, even though policy statements have been made in support of TOD. There are challenges that must be specified and addressed in order to make TOD work. The paper will demonstrate, through case studies, how the TOD approach is being adopted in South Africa and how attempts are being made to exploit it as an urban structuring mechanism. Lastly, the paper makes proposals regarding how TOD could be made effective as a vehicle for urban structuring and transformation. The paper suggests a collaborative approach that has a basis in South African Transport legislation.

4. APPROACH & METHODOLOGY

The investigation will be approached as follows:

- Using secondary literature sources and drawing conclusions about implementation.
- Reviewing examples of TOD implementation and focussing on policy and physical enablers and hindrances. Both success and failure stories will be considered.
- Exploring the South African context and its readiness for implementing TOD. The policy and legislative environment will be investigated. The case study methodology will be adopted as a means to proving that legislation has created platforms that some have elected to exploit. Conclusions will be drawn regarding possible policy shifts. The case study method has been selected as it grounds research in reality and practice, whilst interrogating new possibilities.
- Focussing on PRASA and its collaborative partners and their role in influencing policy shifts and spatial applications of government policy.

5. RESEARCH ANALYSIS & FINDINGS / RESULTS

In an attempt to move from conceptualisation to practical application, and link theory with practice, examples where the concept of TOD has been consciously and deliberately applied, are described below. These examples are explored and described in terms of the principles applied, the challenges faced, as well as the successes and shortcomings of TOD projects. TOD cases are recorded in various areas including Canada, Australia, the United Kingdom and the United States. Most of these
cases, however, focus on a single development around a particular transit station. The cases focussed on in this paper were selected for their intended impact on various transit nodes along a given transit corridor in a manner that structures and transforms the urban area, thus giving it a unique identity and character. The case of Village de la Gare in Quebec could not, however, be ignored even though its focus is on one commuter rail station. Its inclusion in this paper is specifically for the collaborative approach taken in its conception, design and development, as this approach presents a useful example for South Africa.

5.1 City of Seattle Station Area Planning

5.1.1 Description

This case has been selected as an example of how Local Authorities, together with public transport agencies are able to drive planning processes that make TOD possible.

The City of Seattle, together with the rail authority, Sound Transit, worked on creating an environment conducive to the success of transit oriented development and the associated benefits of increased transit ridership. In 1998, the City of Seattle articulated a vision for future development around selected light rail stations. Policy choices were identified to guide the direction of future land use decisions in station areas, leading to the adoption of Station Area Concept-Level Recommendation packages in 2000. The Station Area Overlay legislation, which allowed for appropriate zones in station areas and the establishment of Station Area Overlay Districts, was passed in 2001. Market analyses for each area laid the basis for the development of scenarios, which included desirable station designs.

The following enabling pieces of legislation were passed during the process:
- Inter-local Agreement between the City and Sound Transit, Ordinance No. 118927 (3/98)
- Framework Goals and Objectives for Station Area Planning, Resolution No. 29867 (12/98)
- Interim Station Overlay, Ordinance No. 119394 (3/99)
- Concept-level Recommendations for each station area, Resolution No. 30165 (9/00)
- Station Area Overlay and Rezones, Ordinance No. 1204530120460 (7/01)

5.1.2 Lessons Learned

Collaboration led to the development and promulgation of enabling legislation. Therefore, through practiced collaboration in South Africa, policy shifts and enabling legislative measures are possible.

5.2 Virginia, USA: Rosslyn-Ballston Metro Corridor

The Rosslyn-Ballston Metro Corridor indicates successful integration of land use and transport planning along a railway corridor. It is located in Arlington, Virginia in the USA. The corridor contains five metro stations and five corresponding metro station areas located within a defined radius of the stations.

The corridor indicates a “bull’s eye” pattern of development with more development intensity immediately surrounding the stations as indicated in Figure 1 below. A more legible diagram is attached as Annexure A.
Figure 1: The Rosslyn-Ballston Metro Corridor

The railway corridor enjoys optimal ridership due to the strategic location of appropriate land use around railway stations.

5.2.1 Background and History

Planning commenced in 1972 with the aim of revitalising the existing retail corridors without jeopardising the character of the surrounding single residential neighbourhoods. The plan, as implemented was approved in 1977, where after sector plans for each station were compiled.

5.2.2 Characteristics of the Corridor

- The railway line and stations form the main axis of the corridor.
- Up to 10-storey high buildings have been constructed within the corridor.
- Strict urban design guidelines were developed as part of each sector plan to cover building heights, street design, streetscape and frontages, building materials, and landscaping features.
- Mixed-use developments accommodating retail, offices, residential apartments and parking.
- Floor area ratio of 3.5 for the immediate station area.
- Relatively low private car ownership.

5.2.3 Impact of the TOD initiative

- The population within a quarter-mile of the corridor increased by 107% between 1990 and 2011.
- Transit ridership has increased. 45% of the people living around Clarendon Station, for instance, take transit or walk to work.
- Properties in the corridor account for 47% of the assessed land valuation in the county. Commercial property accounts for 43% of the tax base.

5.3 Village de la Gare, Quebec

5.3.1 Background
Village de la Gare is a development that is within 750 metres from the railway station. It comprises 1000 residential units, 2300 square metres of commercial space, a school, public open space, bicycle routes and pedestrian pathways. The development was a deliberate measure to curb traffic congestion in the metropolitan region. It began with the establishment of the Metropolitan Transportation Agency in 1995, which was meant to promote public transport use. The agency introduced a commuter rail line and service in 2000 as a phase in shaping development around transit nodes. In 2001, the agency and the municipality negotiated with a private land owner for the acquisition of land for the purposes of building a railway station along the new line. This led to a joint planning and development venture for the transit node between the agency, the municipality and the private land owner / developer.

5.3.2 Characteristics of the Development

The following characteristics of the development are worth noting for their relevance in applying the principles of Transit-Oriented Development:

- The design made provision for the location of highest residential densities closest to the station. Although the lower densities are located at the periphery, these buildings are still within walking distance of the station to encourage pedestrian movement.
- Multi-use / Mixed-use buildings are located closest to the station.
- Pedestrian walkways traverse the development, minimizing the need for motorised transport.
- Lower parking standards, as well as parking spaces for bicycles.

5.3.3 Impact of the Development

The following impacts have been identified:

- 44% of people living in the development use public transport for work trips.
- Most of the commuters walk to the train station.
- The average trip to work takes 39 minutes.

5.3.4 Lessons from the Development

The following lessons can be learned:

- Collaboration between authorities and land owners is an important aspect of creating vibrant urban spaces around transit nodes.
- The transport agency led the development of a concept plan for the node in collaboration with the land use department and the developer. This promoted integration rather than alignment of plans in a deliberate effort to create a functional transit space.
- The costs of various aspects of the development were shared between the municipality and the developer.

6. Research Contribution

The research contribution will be presented in two sections. The first section focusses on a case study of the Passenger Rail Agency of South Africa’s (PRASA’s) interaction with two municipalities in Gauteng and the Western Cape, and the writer’s active involvement in the processes that sought to address the challenges. The challenges will be articulated drawing from conclusions of previous studies, which have laid the basis for the attempts at finding solutions and identifying areas for future research. The second section follows from the case study analysis, making proposals from the outcomes of the collaboration between transport and spatial planning authorities.
TOD in South Africa has not been given much attention, although policy directives that advocate for urban compaction have a bearing on the application of the concept. Some initiatives, especially in Cape Town, attempted to marry spatial planning and transport planning, without much success. The reasons for this lack of success will be sketched out below as these same reasons have hindered the implementation of TOD.

The reasons for the lack of success, as spelt out in Wilkinson (2006), are:

- Current legislation has not created an institutional framework conducive to the integration of transport planning and spatial or land use planning, hence the failure to advance TOD in South Africa;
- The perception that disciplinary discourses and professional practices remain divergent between spatial and transport planners obstructs the formation of a fully integrated land use-transport planning approach, resulting in ignoring the application of TOD principles.

These reasons / conclusions are the basis for the selection of case studies discussed below. The point of departure is that legislation has indeed created a platform for integrating transport planning with land use planning. This platform has not been optimised; however, there are initiatives that are making strides in ensuring that the platform is exploited. When Wilkinson (2006) made his case, it might have been true that the institutional framework did not exist. Transport legislation has since created institutional arrangements that forge the way forward to positive outcomes. One such arrangement is the establishment of Intermodal Planning Committees, whose interpreted mandate is meant to go beyond focussing on land transport integration, but include the integration of land use and transport. Now, the integration of transport and land use does not begin with the physical integration of land uses with transport uses. It begins with the deliberate planning for that integration; it begins with the integration of efforts. The selected cases demonstrate this deliberate action as it has been made possible by transport legislation.

It is important to note that the Department of Transport’s Public Transport Strategy and Action Plans of 2007 made statements about the location of 85% of South Africa’s residents within 1km of rapid public transport networks, which included integrating transport and development planning functions to ensure land use and density changes within 500m of bus-ways and railways. The following cases indicate how this is being made possible in an incremental way.

**Section 1**

### 6.1 Case Study 1: Ekurhuleni Municipality

In terms of the National Land Transport Act, 2009 (No. 5 of 2009) (NLTA), municipalities must establish Intermodal Planning Committees (IPC). Ekurhuleni Metropolitan Municipality (EMM) established such a committee in 2013. The purpose of the IPC is to co-ordinate public transport between modes of transport. One of its sub-committees is the Integrated Planning and Development Working Committee, the mandate of which is to look at the integration of transport planning and land use planning for areas around railway stations. This sub-committee was established in response to the challenges presented by the physical integration of public transport modes and the piece-meal approach that is taken by the different role-players in the development of the transit nodal space. While the integration of planning across the two disciplines has been explored in the Tembisa area, it was only with regard to Germiston and Kempton Park that deliberate actions were taken to jointly address railway precincts from a TOD perspective. Although the NLTA did not specifically address integration of planning across disciplines, through the establishment of IPC’s it has indirectly created the appropriate environment within which the TOD could be taken from concept to reality. This case study focuses on Germiston and Kempton Park, which are the two main nodes within EMM.

**TOD Thinking in Germiston**
The Spatial Planning department of EMM initiated the preparation of an Urban Development Framework for the town of Germiston, with the purpose of revitalising the node. One of the main stakeholders that were identified at the beginning of the project was the Passenger Rail Agency of South Africa (PRASA). The reason for this was that urban planning was to be conducted with transport operators rather than for them. The end result was an integrated design for the precinct. The collaborative partners were commuter rail operator, the long-distance bus and rail operator, the mini-bus Taxi Associations, as well as EMM’s departments of City Planning, Human Settlements and Transport. Co-funding was secured from the Provincial Department of Roads and Transport, Ekurhuleni Municipality and PRASA.

TOD Thinking in Kempton Park

PRASA’s corridor modernisation programme includes the modernisation of station facilities. One of these station facilities is Kempton Park Station. Incidentally, when PRASA’s project was conceived, EMM was considering their Integrated Public Transport Network (IPTN), which included rapid transit. The rapid transit component included the Bus Rapid Transit (BRT) with its trunk routes, feeder routes and stations. The main trunk route of Phase 1 runs from Tembisa in the North, passing Kempton Park, through to Vosloorus in the South. The main BRT station will be located within the same precinct as the Kempton Park railway station. Given that this precinct also services the taxi industry, it created an opportunity not only for the integration of modes, but also for the integration of the planning thereof. EMM’s Department of Human Settlements also had plans for the western portion of the Kempton Park node. For these reasons, the decision was taken at the Intermodal Planning Committee meeting to jointly prepare an Urban Development Framework and thereafter, a precinct plan led by EMM’s Spatial Planning Division. Furthermore, Kempton Park was the most central node within the Aerotropolis, given its proximity to OR Tambo International Airport. The IPC then elected to establish a sub-committee that was going to focus on two initiatives:

- Initiative 1: To facilitate the integrated planning of land use and transport projects that have been identified by both the Ekurhuleni Metropolitan Municipality (EMM) and the Passenger Rail Agency of South Africa (PRASA).
- Initiative 2: To encourage the coordination of multimodal and intermodal planning across the various transportation modes within Ekurhuleni Metropolitan Municipality.

The specific goals of the task team included two goals that are worth mentioning here:

- Goal 1: To ensure that the principles of TOD are applied within the Kempton Park station precinct.
- Goal 2: To classify or categorise railway stations in order to determine the land uses that would be permissible within and around the railway station precincts, thus laying the foundation for appropriate land use management.

The collaboration is on-going and the lessons learned during the course of the interaction will be used to inform similar collaborations across the country.

6.2 Case Study 2: The City of Cape Town

While EMM started with adopting the concept of TOD before finding ways of making it a reality on the ground, the City of Cape Town (CoCT) started with an effort to integrate the planning of transit nodes before adopting the TOD concept. Through its Spatial Planning Department, CoCT established the Joint Planning and Development Committee (JP&DC) as a sub-committee of the Rail Steering Committee. The mandate of this sub-committee was to integrate the planning and development of railway nodes where both PRASA and CoCT have property holdings. It was more about packaging land holdings for the optimum development of identified nodes. The approach taken by this sub-committee was that of looking at the railway network holistically and jointly identifying the development potential of each node. This was the birth of the “Typology of Stations”...
study which was led by CoCT’s Spatial Planning Department under Cathy Stone. Peter Grey was
given the task to drive the process. The outcome was as follows:

Using Multi-Criteria Analysis (MCA), PRASA’s stations were categorised into: Metropolitan,
Major Urban, Employment / Mixed Use, Urban Neighbourhood, Neighbourhood and Coastal
Destination Stations.

An example of a Station Typology is indicated in Table 1 below:

<table>
<thead>
<tr>
<th>Station Character</th>
<th>Generic Land Use Description</th>
<th>Intermodal Connectivity</th>
<th>Position in Urban Fabric</th>
<th>Position in Rail Corridor</th>
<th>Passenger Throughfare</th>
<th>Station Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metropolitan</td>
<td>High intensity land use mix</td>
<td>Intermodal hub</td>
<td>Within the main metropolitan centre or CBD</td>
<td>Connecting a number of services</td>
<td>Origin, transfer and destination for commuters and non-commuters</td>
<td>Park Station, Joburg</td>
</tr>
</tbody>
</table>

Table 1: Station Typology Example

This laid the foundation for more meaningful engagement between PRASA and CoCT on land uses
within the railway station and within a 500m radius of the station. Various ideas were tabled, one
of which dealt with the zoning of the railway stations. While it was agreed that the zoning was to
be consistent across all railway stations, it was also agreed that different categories of stations would
be developed according to precinct plans that were to be guided by overlay zones.

Section 2

6.3 Proposals

This section is presented in four parts; the first part deals with the criteria for analysing railway
precincts; the second one deals with the application of the criteria; the third part proposes
development parameters; and the fourth part deals with the roles of the transport / rail and spatial
planning / land use authorities in the collaborative arrangement.

Based on the above case studies, the following contribution has been derived. Gaps might still exist,
as this contribution has not yet been fully applied. The main point is that through collaborative
efforts between spatial planning and transport planning officials, guided by legislation, within the
context of South Africa, some avenues have been explored and will continue to be explored in order
to ensure that TOD does not remain a concept. Through these efforts, the urban landscape is
gradually being transformed and undesirable environments around railway stations are transformed
into being desirable areas.

6.3.1 Developing the Criteria

The first part of the contribution is the development of criteria that will be applied in analysing
urban environments around transit nodes. The following criteria are proposed:

- Existing and proposed land use character within a 500-1000m radius around a railway station,
  including parking parameters;
- Demographics of the transit supportive area (500-1000m radius);
- Station potential in terms of accessibility and spatial positioning within the urban fabric;
- Intermodal connectivity, including the function of the transit system;
- Development value within the 500-1000m radius around a railway station;
- Position of the station within the railway network.

6.3.2 Applying the Multi-Criteria Analysis Approach

The second part of the contribution is the application of the criteria using the Multi-Criteria Analysis (MCA) approach. The benefits of utilising Multi-Criteria Analysis are as follows:

- Multi-criteria analysis is a transparent and robust decision-making methodology which is able to take into account both quantitative and qualitative factors within a consistent methodology.
- MCA breaks down the decision-making process into groups and sub-groups of criteria; each station is given a score for each criterion.
- Scores are derived from underlying data or interpreted subjectively as indicators of the strength of various preferences.
- Criteria within the same group are weighted relative to each other until a final score for each station is achieved.
- MCA is suited to complex decision-making processes with multiple criteria.
- MCA provides the ability to compare quantitative and qualitative criteria.
- MCA simplifies the decision-making process into individual criteria, while still covering all issues.
- Through MCA, it is possible to test implications of assumptions and weights on the outcome; it leads to more robust decision-making.

6.3.3 Proposed TOD Parameters

The third part of the contribution is the presentation of the principles of TOD that would be applied to the station precincts after the classification of the nodes has been undertaken and MCA applied. These will be presented as development parameters.

Residential Land Uses

Highest permissible residential densities should be encouraged within walking distance of, viz. 500m of the railway station. Medium-high (depending on what is “highest permissible”) densities must be encouraged within the 1000m radius. Minimum residential densities of 80 units per hectare must be encouraged in the station area for each individual project.

Mixed-Use Developments

A mix of residential, office, commercial, entertainment and retail uses generate trips on-peak and off-peak. It is critical that within the primary density area, these uses are encouraged through spatial policy. If these are spread across a corridor, in varying intensities, they will enable the even spread of trip origins and destinations, thereby producing efficient bi-directional flows.

Although vertical mixes are encouraged and preferred, horizontal mixes would be acceptable where visual impact aspects dictate otherwise.

The pedestrian connection from the workplace to the station should be as short as possible, directly oriented towards the station and unobstructed by parking and landscaping.

Community services within the 500m radius should be easily accessible for pedestrians and should support the primarily transit-oriented function of the station area.
Commercial Activity

Station precincts have the advantage of being facilitators of pedestrian and other movement. Locating commercial activity within and around the station has the benefit of providing convenience to the public transport users, especially within intermodal station precincts.

Civic Nodes

Government service clusters should be encouraged to locate at places of greatest accessibility in terms of physical access and affordability.

Streetscape Design

Buildings along the sidewalks serving the station should open directly onto the path, with transparent ground floors and good views of the path from upper floors.

The design must encourage pedestrian activity and promote safety.

Street width in the immediate station area should not be wider than needed to accommodate emergency vehicle egress, and if applicable, any bike and/or parking lanes.

The main sidewalks and crosswalks in the area should not be obstructed by wide turning radii.

Public gathering spaces should be sited and designed to be active, versatile, secure and easily maintained.

In order to promote railway stations as gateways to socio-economic opportunities, the station forecourt areas should be developed such that they create a sense of place. Street to street access across the railway tracks should be encouraged to maximise the accessibility of the station precinct.

Intermodal Connections

Taxi and pick-up/drop off areas should have signage, be well-lit, close to and visible from the station entrance. All bus and IRT stops connecting to the rail should be within sight and short walking distance of each other.

Parking Configuration

Parking provisions for commercial uses within the 500m radius should be lower than in areas that are located further from the station. Parking provided for park-and-ride use at the station could be shared with commercial uses.

Based on the analysis, the Transport and Spatial Planning departments of Municipalities would collaborate with PRASA and agree on the categorization or classification of stations. Once the categories have been agreed to, precinct plans can then be prepared for prioritised stations. These precinct plans should be prepared such that they create an enabling environment for desired land use rights, as well as allow for phased development within an approved framework.

6.3.4 The Role of Transport and Spatial / Land Use Planning Authorities

The fourth part is divided into sections that address the role of PRASA and thereafter, the role of Municipalities.

The Role of PRASA

PRASA’s legislative mandate includes support for governments social, economic and transport objectives in terms of Section 23 (3) of the Legal Succession to the South African Transport Services Amendment Act, 2008 (Act 22 of 2008). PRASA, as a property owner and a public transport agency, has a role to play in the implementation of TOD in South Africa, especially if TOD results in the support
of government’s objectives. Furthermore, PRASA has in-house capacity to drive TOD, in form of real estate management and property development divisions and subsidiaries.

In order for PRASA to fulfil its primary legislative mandate, appropriate densities must be developed around PRASA stations. Local Authorities must actively promote the location of moderate to higher density, mixed-use developments around PRASA stations and along railway corridors. This requires proactive steps and measures to ensure that the development of new settlements and nodes along proposed railway corridors are subjected to density requirements that are consistent with TOD principles. PRASA’s land holdings can be developed jointly with other state properties to create sustainable and vibrant nodes that transform the sterile environments. While this will help address socio-economic issues of communities, as well as spatial disparities, it will also help PRASA justify investment in new railway infrastructure and prioritise its implementation.

**The Role of Municipalities**

In order to make TOD possible and support PRASA’s mandate (which is in essence, government’s mandate), Local Authorities can use various mechanisms, including the following:

- Overlay zones, lower parking ratios, funding for station-area planning, density bonuses, tax incentives, etc.
- Initiating a study to categorise railway stations with the aim of determining the development potential of areas around each station on the railway network, including future railway corridors. Thereafter, drive the preparation of station precinct development plans or local area development plans for areas around stations.
- Integrate the implementation of economic development initiatives with spatial plans in order to unlock the development potential of proposed nodes along existing and proposed railway stations.

7. **CONCLUDING REMARKS**

The paper advocates for collaboration between transport planners and land use planners in the creation of vibrant and functional urban spaces. The case of Village de la Gare in Quebec adds another dimension to the collaboration, that of the private land owner or developer. The collaboration between these parties from the conceptualisation of a development ensures that plans are integrated or combined into one integral whole instead of being aligned into a segregated whole.

8. **RESEARCH LIMITATIONS**

- This paper was produced mainly from readings about cases where TOD has been consciously and deliberately applied. Little time was spent on evaluating successes and failures in order to identify lessons and propose improvements.
- The research input component, although based on references to cases, was largely based on the writer’s deliberate effort to foster integration between land use planning and transport planning, using TOD as a starting point. The limitation presented by this is that the direction that TOD implementation is taking, especially in Ekurhuleni, might be biased towards the writer’s own drive to deliver on his mandate, thus compromising objectivity. The real lessons will be learned when TOD initiatives are implemented, including lessons related to financial implications, investor responses, etc.
- The legislative framework has not been appropriately interrogated in order to place TOD implementation squarely within the requirements of South African legislation.
- The paper does not address “mixed use” in detail as this is dependent on locational dynamics and market research, etc.
9. FURTHER RESEARCH

The following notes are made for further research:

- It is important to note that while South African transport and land use legislation points towards integrated planning, it needs to go further into creating an enabling environment for Transit Oriented Development. More work must be done in order to influence the shift in legislation to ensure that TOD is firmly grounded in spatial and transport policy and legislation, thus ensuring compliance with collaboration directives.
- Collaboration must be unpacked with due consideration of the dynamics and complexities of stakeholder participation and buy-in.
- The application of TOD in the South African context must be practically tested and lessons learned must be drawn upon to develop a context-specific TOD approach.
- While the paper proposes criteria for TOD, there is still a need to conduct more detailed studies on the locational dynamics for specific types of land use mixes.

10. ACKNOWLEDGEMENTS

The writer would like to acknowledge the following people:

Ian C. Scott, for introducing the writer to the concept of TOD and for encouraging free thinking around the optimisation of railway lines and station nodes. Yolisa Mashilwane, Uyanda Langa and Wonder Matshiga, all from Ekurhuleni, for affording the writer the space to explore the collaboration and use that space as a laboratory. Catherine Stone and Peter Grey from the City of Cape Town, for their pioneering work on station typologies and integrated planning and development of identified transit nodes. The members of my department at PRASA, SNP, for allowing me to explore a topic that goes beyond conventional railway planning. My family, who have had to endure my long absences as I spent time labouring in the study. My wife, Nobayeni Makau, for the support that she gave, for encouraging me to make my thoughts public, for believing the good things that other people say about me and for making me believe that great ideas are born in the minds of individuals. The final and timeless acknowledgement is to Gladys Mimmie-Jane Makinana, my mother, my patron saint, my pillar of strength, my eternal inspiration, for teaching me that limitations are created and not natural, that reading expands the horizons and that one needs to read, analyse, ask questions and ultimately provide answers.

11. REFERENCES


Housing Policy Implementation Versus Municipal Capacity: The Case of uMshwathi Local Municipality

Ashley Hay
PhD Scholar, Department of Urban and Regional Planning
University of the Free State, IB 69, PO Box 339
Bloemfontein 9300, South Africa
Tel: +27-514012486; Email: ashley.hay@vodamail.co.za

Dr Maléne (MM) Campbell
Senior Lecturer, Department of Urban and Regional Planning
University of the Free State, IB 69, PO Box 339
Bloemfontein 9300, South Africa
Tel: +27-514013575; Email: campbemm@ufs.ac.za

Abstract

Rapid urbanisation has dominated the world over the past decades, with more than half of the world population living in urban areas. While there have been interventions to deal with this rapid urban growth, it has had various negative impacts, such as extreme poverty, insufficient infrastructure and services, environmental deterioration, and informal and slum settlements, particularly in developing countries. Accordingly, some of the developmental challenges because of this urbanisation include the need to provide housing, water and sanitation as well as to manage the environment. In the light of this, the UN-Habitat recommends that governments, because of their past failures and hence the resultant one billion slum-dwellers in the world, must assume the responsibility to deliver houses and services as per peoples’ needs. The question that forms the basis of this paper is whether all municipalities have the relevant capacity to undertake their housing functions independently. Also, due to the South African government advocating for the building of capacity in local government to meet the service delivery and housing demands, a further question is raised as to what information should form the basis of training for municipal housing officials in order for them to facilitate and manage the housing processes? Finally, this paper will answer the question as to what chances South Africa has of achieving its 2014 housing target with the existing capacity in municipalities. The empirical research was undertaken in the uMshwathi Local Municipality, a predominantly rural area within the KwaZulu-Natal Province of South Africa. The data collection comprised quantitative, open-ended questionnaires served to the thirteen ward councillors. In conclusion, this paper makes proposals for municipal capacity building in the field of housing. The information herein provides a foundation for the development of specific housing-training programmes for housing officials within municipalities.

Keywords: Housing policy, Housing capacity, Local government

1. INTRODUCTION AND BACKGROUND

Rapid urbanisation has dominated the world with 3,3 billion people – that is, more than half the world population – living in urban settlements (UN-Habitat 2009). While there have been interventions to deal with this rapid urban growth, it has had a number of negative impacts, such as extreme poverty, insufficient infrastructure and services, environmental deterioration, as well as informal and slum settlements, particularly in developing countries (UN-Habitat 2009). Accordingly, because of urbanisation, some of the developmental challenges include the need to provide housing, water and sanitation, as well as to manage the environment.
Housing becomes a very sensitive aspect of development, particularly when the housing supply is slow or poor in relation to the demand. In South Africa, housing is one of the central concerns of the government, since it provides poor people with access to services, offers a mechanism for the accumulation of wealth through assets and enables poor people to become functioning citizens in society as well as the economy (Cross 2006). However, despite housing being a central concern, the numerous boycotts, strikes and rebellious acts of residents on waiting lists for housing, or recipients of government-subsidised housing who are unhappy with the products they receive, are evidence of the government’s failure to cater for the increasing needs of the country. The overall dissatisfaction due to the inadequate and poor quality of government-subsidised houses as well as the government’s failure to deliver houses and services as promised to the poor was some of the issues raised by protestors. This inadequate delivery has increased the housing backlog and according to the Socio-Economic Rights Institute of South Africa (SERI), the housing backlog of South Africa increased from an estimated 1.5 million units in 1994 to over 2.1 million units in 2010, leaving approximately 12 million people without homes (SERI 2011). SERI (2011) provides a few other reasons for this exponential growth in the housing backlog, for example, as changing household structures, rural to urban migration, lack of employment and other opportunities in rural areas, as well as low incomes, which render households eligible for government subsidies, rather than a personal bank.

The housing policy guidelines of the White Paper on Housing that was accepted in 1995 has a capital subsidy scheme at its basis that would subsidise low-income families, depending on their salaries (Marais & Krige 2000). This Reconstruction and Development Programme (RDP) once-off, project-linked subsidy applies to families earning between R0 and R3 500 (US$590) monthly (SHF2010). Applicants apply through their local municipality for these subsidies from the provincial government. These RDP house recipients receive full tenure. Between 1994 and 2011, the government has built approximately 3 million RDP houses to accommodate approximately 13 million residents, whilst also increasing the budget for human settlements by 38% to R22.5 billion (US$2.6 billion) in 2011/12 and then a further increase to R31.9 billion (US$3.6 billion) projected for 2013/14 (South Africa 2012). The government has amended its housing policy accordingly and formulated the Comprehensive Housing Plan, better known as the Breaking New Ground policy. Within this, priority has been given to accelerating housing delivery; enabling efficient land use and spatially integrated settlements; improving the property market; creating jobs through housing delivery, as well as improving the quality of life for 500 000 households, together with the upgrading of all informal settlements by 2014, in line with the Millennium Development Goal to improve the lives of 100 million slum dwellers by 2020 (South Africa 2012; UN-Habitat 2009).

From the above, it can be acknowledged that the housing targets are nationally driven, but at the forefront of the housing delivery process is the sphere of local government, that is, municipalities which, in accordance with the global stance for governments to become more decentralised, democratised and participatory, have been allocated greater responsibilities for planning and development within their local jurisdictions (UN-Habitat 2009; RSA 1996). As the UN-Habitat (2009) states, local government level has had to face challenges because of the changes in decision-making; hence, undergoing various transformations. Therefore, assuming greater responsibility is not as simple for municipalities, and their ability to deal with specific issues such as housing varies, depending on their capacity. To substantiate this further, Cross (2006) states that there are institutional shortfalls in local governments and because previous housing policies did not address this issue adequately, the result have been housing problems, challenges regarding service delivery and social conflict. While legislation, such as the Constitution of 1996, has conferred new powers and responsibilities upon local government, for example, the responsibility of municipalities to provide adequate housing to their inhabitants, institutional capacity at local level is weak when it comes to implementation (SERI 2011; Cross 2006).

Retaining the focus on South Africa, Jenkins (1999) states that the role, responsibilities and institutional capacity of local governments in providing housing – particularly with regard to low-income families – have not been developed well enough. This is due to the restructuring of local governments towards the end of apartheid, the loss of vital staff due to package pay-outs and the non-devolution of powers and responsibilities from national to provincial, and then to local government spheres. Jenkins (1999)
further suggests that this incompetence of local government will continue because of its poor internal capacities and, that there has not been a shift towards a more developmental and bottom-up approach in housing delivery at local government level such as inclusive community participation, integrated development and collaboration with local stakeholders or beneficiaries.

Therefore, bearing in mind the short-term housing delivery targets for 2014, the capacity constraints of local government, and the fact that the government has failed to reach its previous target of one million houses under the Reconstruction and Development Programme within five years, post-1994 (Bond & Tait 1997; Watson & McCarthy 1998), there is doubt as to whether the housing policy will reach its targets within the following two years. While there are various pieces of literature on the failure of housing policy, the core focus of this research is on improving local government capacity to reach the country’s housing targets. The effectiveness of the housing policy depends on its implementation, which is, in essence, dependent on that government’s capacity to undertake this responsibility efficiently.

One of the key questions that have to be answered is, “Do the public administrations, especially at municipal level, have the necessary conditions to manage projects and resources in a proper and efficient manner?” (Fernandes 2011). This same question, with some alteration, forms the basis of this research, namely whether all municipalities have the relevant capacity to undertake their housing functions independently? Then, due to the government advocating capacity building in local government in order to meet the demands for service delivery and housing, a further question is raised as to what information should form the basis of training for municipal housing officials in order for them to facilitate and manage the housing processes? Finally, this article will answer the question as to what chances South Africa has of achieving its 2014 housing targets with the existing capacity in municipalities, or whether such capacity will be improved through proper training.

2. OBJECTIVES AND METHODS

“Making great places” can be interpreted differently by different individuals in their understanding and interaction with the environment around them. A simple understanding would be a place within which people can live, work and play and feel a sense of belonging. The main theme of the Planning Africa 2014 conference focuses around the question of “how to make towns or cities great places, as well as, how to make great places within towns or cities?” The broad focus areas of the conference includes the role of planning and planners in producing these “great places” that, cater for peoples’ needs, provide services and amenities and, are economically and environmentally sustainable. Whilst more emphasis is often placed on urban and built-up areas, as a sub-theme of the conference, there is a need for rural regions to also be seen as “great places”.

The uMshwathi Municipality (wherein the research was done) is a typical example of a rural region and is characterised by fragmented rural residential settlements in need of various services, facilities and amenities. There are some human settlement projects that have experienced various problems and created tensions amongst the beneficiary communities. Therefore, as a direct response to the theme of the conference, the study aims to assist municipalities particularly rural ones, to identify some of their current problems in housing delivery and put in place mechanisms to deal with these.

Generally, the study aimed to highlight some of the capacity problems within municipalities in South Africa with regard to implementation of the housing policy. One of the main objectives achieved through this study is the provision of empirical evidence to support the need for education and training on the planning and development processes associated with delivering sustainable human settlements. Further, in providing a summarized version of the history of housing policy development, another key objective was to ensure that some of the previous problems in housing delivery, may not be repeated. It was also crucial as an objective, that decision makers (politicians) gained an understanding of the various processes involved prior to actual housing construction. Most importantly, is the need for municipalities particularly the rural ones, to acquire the necessary skills and expertise in planning and housing, to produce viable and sustainable human settlements that satisfy the needs of the communities.
and therefore, be regarded as “great places” to both the inhabitants and visitors of that particular settlement.

The empirical component of this paper focuses on the uMshwathi Local Municipality, a largely rural area within the KwaZulu-Natal Province of South Africa. The uMshwathi Local Municipality is one of seven local municipalities (including the Capital City of Pietermaritzburg within the Msunduzi Municipality) forming the uMgungundlovu District Municipal area. According to its Integrated Development Plan (IDP) of 2012/13 (uMshwathi Municipality, 2012), the Municipality has just over 113 000 people (making it the second-largest population in the district) living in 23 732 households. There are thirteen wards across the municipal area, which is largely agricultural by nature, with mainly rural nodal areas, except for its four main urban towns.

With regard to the housing situation in the uMshwathi Municipality, this empirical research will set about to ascertain the levels of satisfaction of the thirteen ward councillors (politicians) on housing delivery in the local municipality to date, as well as their views on administrative capabilities of the municipality to reach the overall municipal housing targets for 2014. The methodology applied in collecting the data entailed the development of a quantitative questionnaire comprising close-ended questions. One-on-one discussions with the ward councillors took place at the uMshwathi municipal offices between 21 and 31 January 2013 and it was made clear to councillors that the questionnaire was for research purposes only.

1. THE EVOLUTION OF HOUSING POLICY IN SOUTH AFRICA

The country’s housing policy commenced during the 1920s with the aim of controlling its social fabric along racial lines. This included the allocation of certain areas known as “Reserves, Bantustans or Homelands” for black people outside the main cities and towns (Wilkinson, 1998: 216). Legislation and policies were developed to deny black people access to, and ownership of land in municipal urban areas, as well as containing black urbanisation by creating segregated residential locations or townships (Wilkinson 1998). It must not be assumed that this influx control only prevailed in South Africa, since Campbell, De Kock and Van der Westhuizen (2008) make us aware that before 1977, similar circumstances existed in Namibia with the use of pass laws to restrict migrant workers from residing in urban areas. Hence, poor people in Namibia were forced to relocate to peri-urban areas, which resulted in economic and social separation from the rest of society.

South Africa continued along the lines of racial residential segregation through slum-clearing schemes and municipal locations, where local authorities provided minimal subsidies for the building of very basic and sub-standard houses for black people away from the urban areas (Wilkinson, 1998). After the Second World War, the population of South Africa increased drastically, giving rise to squatter settlements outside urban areas. After the National Party’s victory in 1948, the national government revisited its subsidy schemes to encourage settlement in municipal locations (townships) and to reduce squatters. As this attempt was failing, apartheid was born to regain control of the migration of black people.

What came next, during the 1960s, was the mass demolition of residential areas owned by black people, such as Sophia Town in Johannesburg, and their removal to designated areas such as Soweto, an abbreviation for south western townships – a dormitory town outside Johannesburg. This was intended to control the movement of black people and serve as labour reservoirs for the white industrial economy (Wilkinson 1998). According to Landman and Napier (2009: 300), Soweto was a self-help “site and service scheme” area intended to cater for 10 000 families living under squatter conditions. At the same time, the urban centres within the black homelands were developed in order to relocate black people from the cities and have them commute to work. As Wilkinson (1998: 220) points out, a “Separate Development” programme emerged in the South African housing policy.
The government’s inability to cater for the housing demand led to sporadic informal settlements emerging close to urban centres, which was exacerbated by the government continuing from the 1980s into the 1990s to focus its attention on the supply side of housing and develop its housing policy accordingly. Parastatal agencies such as the Independent Development Trust (IDT) were also established and the focus turned to accelerated site provision with installed services to cater for housing development on an incremental basis, for instance, people living in an informal dwelling who could upgrade their houses over time through subsidies as well as their own finances and labour. It is important to note here that both Wilkinson (1998) and Landman and Napier (2009) agree on the good efforts of the IDT to have delivered 100 000 serviced sites between 1992 and 1994. According to Landman and Napier (2009), three main housing schemes were available before 1994 namely site and services, core housing and informal settlement upgrades.

The African National Congress’s (ANC’s) victory in the first democratic elections of 1994 held forth the Reconstruction and Development Programme (RDP) as the main framework for South Africa’s development. The housing policy was aligned to the RDP and the focus was to give previously disadvantaged communities access to the housing process. By doing this, some of the targets in the RDP to reverse the impact of apartheid, such as spatial segregation and social distortion, did not receive the attention they deserved. The year 1994 in South Africa saw the publication of the White Paper on National Housing Policy and Strategy. The National Housing Subsidy Scheme followed in 1995, with the publication of the Draft Housing Bill in 1996 putting forward mostly institutional changes (Wilkinson 1998). The new housing policy and 1994 White Paper emerged from extensive talks at a National Housing Forum, which saw the culmination of previous policy development initiatives and the inputs of the private business sector (Watson & McCarthy 1998). Watson and McCarthy (1998) concur that the new policy was developed similar to housing policies in the Developing World as well as being aligned to the stance of the World Bank on housing.

2. PROBLEMS IDENTIFIED WITH THE SOUTH AFRICAN HOUSING POLICY

The success and importance of any housing policy is its ability to cater for the housing needs of particularly poor people (Choguill 2007). Choguill (2007: 148-149) highlights the fact that “50 years of housing policy development have not solved the problem” particularly in the Third World, which has seen substantial increases in the informal housing sector. Although housing is not totally independent from other development sectors such as social amenities, job opportunities and infrastructure, the success and sustainability of housing depend on the interrelation and success of all the other sectors as well (Choguill 2007). Therefore, in terms of the following critique of the South African Housing Policy, some of the housing failures mentioned may be as a result of other development sectors and negative contributors such as inadequate jobs or low incomes in the poorer sectors of the economy (Choguill 2007).

Both the previous and current governments have had trouble in meeting the country’s housing demands and it is important to highlight some of the problems associated with the South African housing policy since 1994. Therefore, without discussing Bond and Taits’ (1997) critique of South Africa’s incremental housing policy at length, their conclusions of its failure and, their recommendations for a revisit of the housing policy, it is important to note Bond and Taits’ (1997: 19) ironic statements that this “… so-called ‘incremental’ policy … was initially endorsed by a popular hero of the liberation struggle, the late Minister Joe Slovo, … during a period of ‘unrealistic expectations’…” What is actually pointed out here is that the housing policy was born at a time when the country was moving into democracy and there was an overall positive outlook for an ideal future state with housing as one of the key deliverables. The irony is made clearer with the new housing policy identified as similar to previous apartheid housing plans (Bond & Tait 1997).

The above critique seems harsh, but similar sentiments are expressed by other writers. To this end, their recommendations for the housing policy to incorporate a wider scope of tenure options, particularly rental accommodation, offer a variety of housing forms and encourages implementing agents to cater
for the broader needs of the urban poor. Watson and McCarthy (1998: 51) identify some other negative aspects of the policy such as the “slow housing delivery rates” between 1994 and 1996 and, that the target to providing “350 000 units a year by the end of the century” was seemingly far-fetched. This, in turn, exacerbated the illegal occupations of land. Watson and McCarthy (1998) point out that site ownership in urban areas, as motivated in the housing policy, is not conducive to the needs of the urban poor people who choose to channel their earnings back to their rural roots. Poor people find it very difficult to pay for services, maintenance and upgrades of their sites as expected through the objectives of the housing policy. Finally, Watson and McCarthy (1998) state that the new 1994 policy was no different from the previous government interventions to develop housing on large tracts of land on the periphery, land that is easily developable, acquirable and cheap, of urban economic and social centres which, in turn, create an adverse impact such as distancing poorer communities and increasing their transport costs to such centres.

Honing further into some of the problems with the country’s housing subsidy processes, Jenkins (1999), with the use of Housing Department statistics on government-approved subsidies, points out that the majority of these subsidies, particularly around 1998, were provided as full subsidies that were mostly project-linked to poor households having no access to additional bank financing. This therefore creates differences as to what can be developed by using only the subsidy amount, such as a basic serviced stand with a minimal top structure in areas where land is cheap. In areas where land is expensive the subsidy is not enough even to provide services to a stand, which is further exacerbated by beneficiaries not having the personal means to improve or extend the unit given to them. While Jenkins (1999) advocates broader housing delivery and tenure options, he stresses the importance of community-based actions in housing policy, as well as more emphasis on social and rental housing to meet the needs of the people. Furthermore, community development initiatives will enable more efficient, effective and equitable use of government resources, thus increasing the benefits to all in the delivery of housing. People will also take ownership of the development that affects them, while the government, in turn, will be giving effect to this objective in its policy and respective legislation. Caution is advised, though, against the notion of the rapid delivery of housing, which adversely affects community development, thereby delivering housing that does not cater for the needs of the people. In this regard, the recommendations are to build the capacity of the institution to support community development as well as to ensure on-going interaction between the spheres of government, the community and the private sector (Jenkins 1999). In addition, it is important to invest in human resources of both government and communities for more effective delivery of housing, as well as putting mechanisms in place to cater for emergency housing requirements. Communities must also be empowered to improve their skills and financial standing so as to contribute towards the improvement of the housing they obtain via subsidies.

Dewar (2008) also identifies various problems with the Housing Policy itself and cautions against the notion of the total eradication of informal settlements. Dewar (2008) supports Jenkins (1999) when he points out that in most cases, informal settlements are the preferred and attainable type of housing to cater for poor peoples’ needs. Although living conditions may not be desirable, particularly in the “shacks” in an informal settlement, the informal settlement as a whole is characterised by a close-knit community with good social networks and democracy in decision-making, which is not common in formal township areas. Dewar (2008) suggests thorough assessments of the conditions within each informal settlement in order to guide the way forward, namely to upgrade or not. Moving on, Dewar (2008: 34) states that there is a need for the government to play more the role of “facilitator” than that of “provider”, since housing is a “long-term, on-going process”. By adopting a facilitative role in housing, the government will empower people to become more pro-active, instead of simply sitting back in anticipation of a house provided by the government. Instead, they will explore various means to increase their own finances and resources as their contribution to achieving a better end product.

With regard to the implementation of the Housing Policy, Dewar (2008) states that housing is still not viewed, particularly by local governments, as a long-term process where the government works together with communities to improve their living conditions; instead, an incorrect view is taken that rapid short-term projects are the solution, but where not everyone benefits. Dewar (2008) identifies another problem with the policy, namely that housing projects are ambitiously undertaken on a large scale, whereas
smaller projects on well-located land ensure more interaction and sharing of ideas or solutions to common problems.

3. THE GOVERNMENT’S CAPACITY TO DEAL WITH THE CHALLENGES

With regard to the developmental challenges facing South Africa, three forms of capacity have been identified as necessary within local governments, namely individual capacity such as a person’s knowledge, skills and character traits; institutional capacity such as the systems, human resources, finances, goals, management mechanisms and regulations of an organisation or municipality; and environmental capacity external to the municipality, such as its tax base, demographics, ecological and geological resources (Goss & Coetzee 2007). These three capacity categories can be fixed, self-determined or relative where one is grounded on another.

Chapters 3, 6 and 7 of the Constitution of the Republic of South Africa (RSA 1996), distinguish between three spheres of government, namely national, provincial and local, which must exercise their individual powers and functions, while cooperating with the others levels of government to deliver services. To enhance integration and collaboration between the respective government spheres, it has become compulsory for all municipalities to undertake integrated development (Municipal Systems Act 2000). Goss and Coetzee (2007) describe integrated development planning as a five-year strategic plan being concurrent with the term of a municipal council of elected office, driving development planning at a local level and comprising various service delivery components such as infrastructure, water, sanitation, public transport, roads and housing. Without elaborating on Integrated Development Plans (IDPs), but noting that legislation requires IDPs to comprise a specific chapter on housing, it is important to note Goss and Coetzee’s (2007) comments that IDPs have been complex and challenging for local government; capacity has not been built effectively, for instance, proper administrative systems are not in place, with low staff numbers and a lack of individual capacity. With regard to individual capacity and applying Goss and Coetzee’s (2007) reference to planning professionals, local government positions are often filled with people who do not meet some or all of the job requirements due to various reasons.

Initiatives since 1994 to build local government capacity have not resulted in significant improvement. The initiatives outlined by Goss and Coetzee (2007) are basic training for local government officials on broad aspects, although not in-depth; generic capacity building that is not appropriate to particular municipal needs; support programmes and issue-based training that are often rolled out to the wrong participants or not relevant to the participant’s current work; and individual-based programmes which do not build the capacity of the organisation, due to staff turnovers.

It is important to note Goebel’s (2007) statements that housing is an important new responsibility for municipalities, as developers, through the Housing Act of 1997 and the National Housing Policy. However, in general, South African municipalities are “struggling to deliver basic housing and services to the massive numbers of people” affected by the historical social inequalities and fragmentation (Goebel 2007: 297). She continues that in South Africa and particularly the Msunduzi Municipality, the housing function was confronted with a “lack of capacity, complicated bureaucracies, inadequate skills and training of new staff, loss of staff to better employment prospects and over-worked existing staff” (Goebel 2007: 296). Such a case study correlates with Huchzermeyer (2001), who states that the lack of government capacity, particularly with regard to the housing functions, amplifies the crisis at local government level. Such crises within municipalities, according to Goebel (2997), will remain for a long time and continue to be an obstacle to policy implementation.

As a solution to the crisis, Huchzermeyer (2001) identifies the need for transfer of skills to local government level in order for such sphere to participate in the housing programmes. According to Huchzermeyer (2001: 321), local governments’ participation in the national housing programmes entails, “promoting housing projects by private developers; acting as a developer to plan and execute municipal housing projects; forming partnerships or joint ventures with private developers to carry out
housing projects; setting up separate business organisations to carry out projects; administering a national housing project in the local area; and promoting as well as facilitating stakeholder involvement in housing processes”. Therefore, with such responsibilities placed on local governments, it is essential to build the capacity of local governments to deliver essential services such as housing.

To build local government capacity in the field of housing, Landman (2012) suggests that as an option, there should be a national training programme for housing officials. Such a training programme should be compulsory for housing officials to complete and pass. The training should include an understanding of housing legislation; national policy and programmes; the role of national-, provincial- and local-government administration; the various housing subsidies; and the processes involved from the inception of a housing project until its completion. Further, there needs to be an understanding of the role that politics plays in decision-making. This basic training will serve to assist housing officials to manage the housing process better.

Similar to what Landman (2012) suggests, it is important to note that the government is aiming to turn around the situation within local governments which, according to Ajam (2012), portray institutional weaknesses such as a lack of technical skills and poor planning. The proposals in the South African National Development Plan (NDP) 2030 intend to build management and technical skills in local government through a formal graduate recruitment scheme for the public service and the employment of these graduates at municipalities (Ajam, 2012).

4. THE CASE OF UMSHWATHI LOCAL MUNICIPALITY

uMshwathi Local Municipality has been identified by the Provincial Department of Human Settlements as one of ten municipalities requiring the establishment of an internal housing unit in order to reach a target of 8 325 housing units by 2014 (uMshwathi Municipality, 2012). Currently, there is one staff member overseeing the housing functions within the municipality, but all housing projects are undertaken by implementing agents. A key concern raised in the IDP is that projects are constantly delayed at various stages of the housing processes, due to slow provincial departmental approval; agreements lapse during land acquisitions; landowners have difficult demands (e.g. rates clearances); difficulty in identifying suitable land available for housing; outdated land audits; engineering services that are sometimes not available in accordance with the timeframes of the housing processes; and no sustainability studies conducted for those current and proposed housing projects (uMshwathi Municipality 2012).

Empirical findings on housing delivery in relation to the term of office of the municipal council

Each of the councillors’ terms within the Municipality were predetermined, since a council’s single term of office is five years and municipalities in South Africa are currently in their third term of office. By determining during which term the housing projects have commenced, a conclusion could be drawn as to the approximate timeframes for a typical housing project in order to provide a timeline of the housing projects. It was found that of the thirteen ward councillors in the uMshwathi Municipality, eight are currently serving a second term; that is, more than five years. From these figures, the respondents were asked to give a description of the completion status of their respective housing projects in their wards. As shown in figure 1, the majority of the housing projects in uMshwathi Municipality have commenced during the previous council’s term of office; that is, more than five years, while only one project was completed during that time. Furthermore, the respondent stated that the beneficiaries were not satisfied with the products received. The current council has not seen any projects completed, and besides the two projects recently commenced, the majority are continuing from the previous council’s term of office. To note as well is that one project has gone beyond ten years (although that project has had trouble with the land sale agreement).
The councillors were also asked to give their views on housing delivery timeframes and while only one project was deemed “very poor” in this regard, there were no outstanding achievements of housing projects meeting their targeted deadlines. The majority of responses varied between poor (seven responses) and satisfactory (five responses) timeframes on housing projects. Therefore, it can be deduced that councillors in the uMshwathi Municipality are not satisfied with the housing delivery timeframes within their local constituencies. The results indicate that for houses to be constructed and ready to hand over to beneficiaries, take between five and ten years to be implemented.

The administrative shortfalls in the housing function

The administrative challenges within the municipality, particularly with regard to political pressure and public participation mechanisms, were also investigated. The councillors were asked to select which option described their roles in the housing processes best. On a positive note, all thirteen respondents indicated that there were unanimous decision-making and overseeing mechanisms within the council. All councillors serve as good links between the municipality’s administration and the community, thereby promoting transparency. However, it is unfortunate that the respondents indicated that they did not play an active role in the planning of housing projects and consequently only received what was planned for them by the implementing agents. On occasions, four councillors indicated that they had bypassed the local administration and liaised directly with the Provincial Department of Human Settlements on specific housing projects. Seven councillors stated that political influence was necessary to keep their housing projects on track. Three councillors indicated that they had to do what was necessary to avert protest action by public members of their wards.

The empirical research went further to identify threats of possible protest action and the main role-players to alleviate such threats within the local municipality. Of the five wards that were vulnerable to protest action, it was found that from the options selected, the local council played the major role to avert three protests, while the municipal administration averted one threat, as did the South African Police Services with another protest. According to the responses to what was the biggest negative contributor to housing delivery in the local municipality, twelve councillors referred to administrative problems and from the substantiation provided, this broadly covered the housing processes, timeframes, land acquisition, funding, planning and construction. No political problems were identified in the municipality, but in one ward certain community problems, such as difficulties in finalising the beneficiary list, brought the housing process to a standstill.

Municipal capacity to undertake the housing function

The councillors’ satisfaction with the number of housing projects proposed for their respective wards, as documented in the IDP, was probed. Eight respondents indicated satisfaction with the proposed projects; however, five responses were negative since the feeling was that the proposed projects and number of houses do not cater for the demand within those specific wards. It was also indicated that...
some projects would result in the relocation of people away from their current locations. On a question as to how the councillors viewed the administrative capacity of the local municipality to undertake the housing function, nine councillors indicated that there was low capacity. On a final question as to what measures should be put in place to improve the capacity of the local municipality to deliver housing to the community, more support from the Provincial Government, inclusive of regular interactive sessions with departments, was required. Four respondents proposed that current municipal employees should be sent for formal training, while three suggested the employment of more staff to assist in the housing component. No respondent opted to hand over the municipality’s housing functions to consulting firms.

5. OVERVIEW OF THE MAIN FINDINGS AND POLICY RECOMMENDATIONS

At the outset, certain questions were posed to form the basis of this research. The first one aimed to ascertain whether there is adequate capacity within South African municipalities to implement the objectives of the housing policy. It has been pointed out in this research that policy development in South Africa underwent complex changes in accordance with the country’s various historic phases during the last century. Particularly with regard to housing development, the demand for such has overtaken the ability of government to supply the demand adequately. The amended Breaking New Ground housing policy includes some good objectives; however, at a local government level, municipalities find difficulty in implementing the housing policy. One of the fundamental reasons for this is the general lack of capacity.

The empirical study of the uMshwathi Local Municipality in the province of KwaZulu-Natal in South Africa has revealed its capacity constraints, particularly in the housing function. The responses received from the councillors indicated that this rural municipality does not have adequate capacity to undertake the housing functions in full and there is a stronger reliance on provincial support as well as on implementing agents. Overall, councillors were dissatisfied that the housing processes of this municipality took between five and ten years, which is much longer than a typical housing process of approximately three years. Furthermore, councillors and communities were not actively involved in the planning of housing projects and were therefore vulnerable to that which is given to them, which may not always cater for their specific needs. In some instances, there were threats of protest action, which councillors had to dissolve. The final responses from the councillors directed attention to a lack of administrative capacity in housing; therefore, the housing challenges persisted. Therefore, the empirical research, together with other literature, provides justification to conclude that not all municipalities in South Africa have the relevant capacity to implement the objectives of the country’s housing policy.

Also initially raised, the second question aimed to determine some of the basic concepts and knowledge that housing officials ought to acquire, in order to facilitate and manage housing processes. From the information available on housing, it can be argued that not all housing officials will be able to acquaint themselves with everything. While there are qualified and experienced housing officials in municipalities, there are also those who do not meet the criteria to undertake housing responsibilities. This has been raised by Goebel (2007) in her study of the Msunduzi Municipality, Pietermaritzburg KwaZulu-Natal, as well as by Huchzermeyer (2001) that there is a crisis at local-government level with regard to housing. The government constantly advocates capacity building; however, there is no current unified or common training programme on housing. To this end, the empirical research within the uMshwathi Municipality highlights the need for training of existing staff as well suggestions for deployment of provincial capacity to their local level. It is therefore evident that proper training and capacity building is required in municipalities. While this research does not dictate the structure of a typical housing training programme, it offers some basic information that housing officials need to be trained in. While others such as Landman (2012) suggest that the programme be rolled out at national level and made compulsory for municipal housing officials to complete, this research recommends such a programme to include a brief history of policy and housing development in South Africa, housing legislation and their requirements on municipalities; the objectives of the housing policy; the different
types of subsidies and programmes for beneficiaries to access; and an overview of the different processes and stages within a typical housing project.

The purpose of the third question in the introductory section of this paper was to provide an approximate overview of how the country is progressing towards its 2014 housing targets and whether quality capacity-building initiatives in municipalities will add impetus to the targets at hand. Considering the history of South Africa, its failure to meet previous housing targets, for example, the one million houses within five years after 1994 and the current capacity constraints in municipalities, this question could be rhetorically negative. However, there is the possibility of achieving the housing targets if the capacity within municipalities is improved as detailed in earlier recommendations. Without repeating the need for housing training programmes, it is important for municipalities also to develop local housing plans that are linked to those of their national and provincial constituents. Housing Chapters within municipal IDPs should establish short-term targets and key milestones linked to the broader long-term housing targets of the municipality. The short-term targets must be realistic and achievable within reasonable periods. Effective public participation is also crucial to successful housing delivery processes; therefore, there should be adequate mechanisms for participation throughout. The nature and scale of public participation will depend on the issues at hand; however, participation should not be merely information workshops, but should rather offer opportunities for people to contribute to decisions that affect them. People must feel part of their housing developments and take ownership of both the positive and negative outcomes. Housing officials must be advocates for those weaker sectors of the community. Good public participation will serve to negate threats of protest action, which often results from the community’s lack of knowledge or misunderstanding of a particular project. There is also a need for good working relationships between municipal administrations and the political leadership in order to enable the transfer of information, the resolution of challenges and more informed decision-making on housing. Housing officials working with local political leaders to disseminate information, convene public workshops and hold meetings with the people on housing matters will serve to promote good governance, institutional reform and politico-administrative alignment, particularly in problematic municipalities. Finally, it is important to establish mechanisms to monitor and evaluate housing project processes. This will ensure that projects are not delayed and that intervention measures can be incorporated to change direction, where necessary, and maintain steady progress towards housing targets.

This research has made proposals for municipal capacity building in the field of housing. The information herein provides a foundation for the development of specific training programmes for housing officials within municipalities. As a final remark, it is possible to achieve the country’s 2014 housing targets through capacity-building initiatives that directly address the capacity needs of municipalities, particularly those rural and under-capacitated ones. After all, the country’s housing policy can only be implemented by people.

6. REFERENCES

Book(s)

Book Chapters

Journals


Legislation/Government publications


Internet sources


From Spaces to Lively Places

Dr. E.J.Cilliers
Senior Lecturer
North-West University, Unit for Environmental Sciences and Management, 2520;
juanee.cilliers@nwu.ac.za

Abstract
Lively planning initiatives are aimed at transforming spaces into places by means of functional use. According to the place-making approach, successful public spaces are lively, secure and distinctive places that function for the people who use it (PPS, 2012:10). To ensure, that a city becomes lively, the public spaces must be highly attractive (Soholt, 2004:28). Recently, environmental considerations have become an integral part of sustainable development thinking and place-making. As such, the relationship between lively planning approaches and green-planning approaches became the focus of modern spatial planning studies, implying that policies and strategies should not merely endeavor to eradicate poverty, create jobs or deliver houses, but embrace decisive sustainable and innovative initiatives that will effectively transform an area in a livable and sustainable community. Such an integrated approach will result in the development of versatile public spaces, created to celebrate the uniqueness of a place, while encouraging alternative uses of the space for a variety of users (Hobart City Council, 2011:2).

This paper aims to illustrate that space can, by means of lively-planning approaches and green planning approaches, be transformed into functional place, also in the African context as the landscape and environmental characteristics support such approaches. It aims to illustrate that planners need to think outside the box and seek for initiatives to enhance lively planning and create successful public spaces based on specific attributes and concepts. It states that green planning approaches and lively planning approaches should form a more integral part of African spatial planning, acknowledging the role and importance of community and participatory planning.

Keywords: Lively planning, green planning, place-making

1. LIVELY PLANNING

Lively planning is an approach linked to the design, function and opportunities present in an urban space, as well as quality of life and specific living conditions, as captured in the livability indexes. The lively planning approach is focused on creating versatile, diverse and integrative functions within the urban environment. More recent theories conversely depict that the objective location of people is not directly related to their subjective contentment. The latter can be manipulated by sustainable and lively initiatives that will enhance the quality of life irrespective of income, education, age or gender. Hence policies and strategies should not merely endeavor to eradicate poverty, create jobs or deliver houses, but embrace decisive sustainable and innovative initiatives that will effectively transform an area in a livable and sustainable community. The challenge of the lively planning approach is to create spaces for people whose needs are constantly changing (Cilliers et al., 2012:13) and for society who is becoming more dynamic. Spatial planning and the provision of public spaces should thus continuously address the needs of the community. This poses a challenge as the changes in the urban environment are much slower as opposed to people’s needs (Barendse et al, 2007:3), as illustrated in Figure 1.
The tension between the slow changing environment and the dynamic society can be minimized through comprehensive public participation processes (Soholt, 2004:8), where people’s needs and behavioral patterns are prioritized in order to plan for and create lively places, not only for present use, but future usage as well and thus adhere to sustainable planning initiatives (Cilliers & De Jong, 2013). To regard a place as livable, the collective requirements and demands have to comply with the needs and capacities of individuals. Hence, citizen-centered initiatives should be the principal angle of incidence in conceiving an approach intending to make a place more livable (Veenhoven & Ehrhardt, 1995:3).

2. **TRANSFORMING SPACES INTO PLACES**

The current physical structure of cities provides for public life, but opportunities should be developed to strengthen a range of activities within one space, in order to create lively public spaces. Articulating what makes a place significant is a key part of a successful project. Places are frequently valued for several intertwined reasons that can coexist and complement each other, but also compete and cause conflict (Raven, 2007). Identifying the reasons why the place is valued (history, memory, longstanding use, community enhancement, economic value) is essential in planning for the space.

Places would be useless if it do not attract people. Places are thus planned for people and should provide the elements of qualitative living (Gehl, 2004), along with the different “opportunities” for different people and users, in order transform space into functional place. The best spaces evolve over time when you experiment with short-term improvements that can be tested and refined over many years (PPS, 2012:12).

“To create a lively place we need to focus on people. What planners and architects ought to do is to turn the conventional way of planning up-side down and introduce a more controversial planning process with the people and the life of the cities and public spaces in focus. Instead of starting with the buildings, we need to envision the future life of an area first. This way we can create public spaces that are inviting and considering resident’s needs and behavioral patterns” (Soholt, 2004:8). The planning of lively cities implies transforming spaces into placed by means of functional use (Cilliers et al, 2012). Lively planning is focused on creating public spaces with various functions, operating in an integrated manner. The planning of lively public spaces thus also implies the planning of various dimensions, in order to incorporate and optimize the different functions, uses and elements of the space.
3. PLACE-MAKING

In his post-World War II speech, Winston Churchill (Geis, & Kutzmark, 2006) considered the reconstruction of neighbourhoods, communities and buildings, and stated that "we shape our buildings and then they shape us." There are many descriptions of the concept of place-making, such as “both an overarching idea and a hands-on tool for improving a neighbourhood, city or region” (PPS, 2012) or, according to Placemaking Chicago (2008), “the art of creating public places of the soul, that uplift and help us connect to each other.” The concept of place-making cannot be encapsulated by one specific definition, but should rather be understood as a wide range of community strategies and initiatives aimed at the improvement of the community’s environment and their quality of life. “An effective place-making process capitalizes on a local community’s assets, inspiration, and potential, ultimately creating good public spaces that promote people’s health, happiness, and wellbeing” (PPS, 2012).

Place-making is thus the process by which people transform the locations they inhabit into the places they live. Place-making is a wide concept including various dimensions of development (PPS, 2012:10). Place-making is mainly focussed on public spaces, creating places to socialise and interact. The place-making-approach is based on the premise that successful public spaces are lively, secure and distinctive places that function for the people who use them (PPS, 2012:10). The following table captures the key attributes of place-making, namely sociability, uses and activities, access and linkages and comfort and image, and the intangibles and measurements linked to each attribute.

Table 1: Place-making elements

<table>
<thead>
<tr>
<th>Key attributes</th>
<th>Intangibles</th>
<th>Measurements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sociability</td>
<td>Stewardship</td>
<td>Number of woman, children</td>
</tr>
<tr>
<td></td>
<td>Cooperative</td>
<td>Social networks</td>
</tr>
<tr>
<td></td>
<td>Neighborly and friendly</td>
<td>Volunteering</td>
</tr>
<tr>
<td></td>
<td>Interactive</td>
<td>Evening use</td>
</tr>
<tr>
<td></td>
<td>Welcoming</td>
<td>Street life</td>
</tr>
<tr>
<td>Uses and activities</td>
<td>Fun, active and vital</td>
<td>Local business ownership</td>
</tr>
<tr>
<td></td>
<td>Real</td>
<td>Land-use patterns</td>
</tr>
<tr>
<td></td>
<td>Useful</td>
<td>Property values</td>
</tr>
<tr>
<td></td>
<td>Indigenous</td>
<td>Rent levels</td>
</tr>
<tr>
<td></td>
<td>Sustainable</td>
<td>Retail sales</td>
</tr>
<tr>
<td>Comfort and image</td>
<td>Safe, clean and green</td>
<td>Crime statistics</td>
</tr>
<tr>
<td></td>
<td>Walkable and user-friendly</td>
<td>Sanitation rating</td>
</tr>
<tr>
<td></td>
<td>Spiritual and historic</td>
<td>Building conditions</td>
</tr>
<tr>
<td></td>
<td>Charming and attractive</td>
<td>Environmental data</td>
</tr>
<tr>
<td>Access and linkages</td>
<td>Continuity</td>
<td>Traffic data</td>
</tr>
<tr>
<td></td>
<td>Proximity and connected</td>
<td>Mode splits</td>
</tr>
<tr>
<td></td>
<td>Readable and walkable</td>
<td>Transit usage</td>
</tr>
<tr>
<td></td>
<td>Convenient</td>
<td>Pedestrian activity</td>
</tr>
<tr>
<td></td>
<td>Accessible</td>
<td>Parking usage patterns</td>
</tr>
</tbody>
</table>

Source: Baltimore City Department of Planning (2010:90).

Place-making is based on “the idea is that it's not enough to have just one great place in a neighborhood, you need a number of them to create a truly lively city or town. It's not enough to have only one superior neighborhood in a city, you need to provide people all over town with close-to-home opportunities to take pleasure in public life. And, it's not enough to have one livable city or town in a region; you need a collection of interesting communities” (PlacemakingChicago, 2012). The theory suggests that a great place needs to have at least 10 things to do in it or 10 reasons to be there. These could range from social
aspects to recreational to commercial aspects. Most of the uses should preferably be in line with local needs and focus on uniqueness of the space. “These 10 great places should also define people's experience of a city, and be dynamic enough to attract a range of user groups, keep people coming back, and continue evolving” (PlacemakingChicago, 2012). It implies an integrated approach to planning, acknowledging the different factors, key attributes, intangibles and measurements that are (and possibly can be) present in a public space. Project for Public Spaces formulated various principles to direct a strategy towards efficient place-making implementation (Placemaking Chicago, 2008), stressing importance of: (1) acknowledging the community as the expert and including them in the planning and design process, (2) envisioning and creating a place and not merely a design, (3) focussing on from that supports function, (4) rendering small changes and implement it progressively and (5) continuously revising and updating plans and design to address changing needs of the communities. These principles should guide the planning and development of public places.

4. CREATING PUBLIC PLACES

Public spaces are among a city’s most underutilized and potentially valuable assets. Because they belong to everybody, they are perceived as belonging to nobody (PPS, 2012:1). Public spaces are an extension of the community. When cities and neighbourhoods have thriving civic spaces, residents have a strong sense of community. To ensure that a public space becomes lively, the space must be highly attractive (Soholt, 2004:28). This can be achieved through a number of initiatives such as encouraging more residential development, attracting more education institutions, as well as providing facilities and green space that make the space more attractive (Hobart City Council, 2011:1). Versatile public spaces should be developed that celebrate the uniqueness of a place and encourage alternative uses of the space (Hobart City Council, 2011:2). Good public spaces are flexible and can respond to the evolution of the urban environment. Good public spaces remain open to the need for change and having the community maintain control over enacting that change (PPS, 2012). Successful spaces share a host of factors that extend beyond their physical dimensions, as summarized in Table 2.

Table 2: Factors of successful public places

<table>
<thead>
<tr>
<th>Factor</th>
<th>Description of successful public space</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identity</td>
<td>Historically, public spaces were the centre of communities; traditionally it helped shape the identity of entire space.</td>
</tr>
<tr>
<td>Attractions</td>
<td>Great public spaces have a variety of smaller &quot;places&quot; within that appeal to various, diverse people. Functions create attractions.</td>
</tr>
<tr>
<td>Amenities</td>
<td>A public space should feature amenities that make it comfortable for people to use. A good amenity will help establish social interaction.</td>
</tr>
<tr>
<td>Flexibility</td>
<td>Successful public spaces need more than one design; flexibility needs to be built in at the outset.</td>
</tr>
<tr>
<td>Seasonal</td>
<td>The use of a public space naturally changes during the day, week, and year and to respond to natural fluctuations.</td>
</tr>
<tr>
<td>Access</td>
<td>A civic destination needs to be easy accessible, including crosswalks, lights timed for pedestrians, slow moving traffic and proper signage.</td>
</tr>
<tr>
<td>Visibility</td>
<td>The elements within space should be visible from a distance; the space should entice pedestrians and users of the space to move.</td>
</tr>
</tbody>
</table>

Source: Adopted from Baltimore City Department of Planning (2010:170)
“Great Places” are not confined to a narrow public place-making definition; as much as this element is key and central to making great places; but include places in a holistic way at various scales and forms (SAPI, 2014).

5. LINKAGE BETWEEN LIVELY-PLANNING APPROACHES AND GREEN-PLANNING INITIATIVES

Environmental considerations have become an integral part of sustainable development thinking and place-making. Urban green spaces play a key role in the sustainable development of cities and likewise contribute decisively to the liveliness of spaces. The character of a community is often identified and labelled by the quality of its green spaces. Well designed, efficiently managed and maintained green spaces enhance living and working conditions, has social and visual value and, equally importantly, attract people and investment into an area (Baycan-Levent & Nijkamp, 2004:1). In this sense it enhances the quality of living areas; render such areas to be more attractive and thereby attract more resources; and enhance the wellbeing of the user-group (Kasperidus et al., 2006). Benefits derived from environmental considerations being part of the place-making process can be categorised according to three main groups, including: environmental benefits, economic and aesthetic benefits and social and psychological benefits (SMA Haq, 2011:602; 603), as captured in the table below.

Table 3: Benefits of including environmental considerations in the place-making process

<table>
<thead>
<tr>
<th>Core benefits</th>
<th>Detailed benefits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Benefits</td>
<td>Ecological Benefits</td>
<td>Urban green spaces supply cities with ecosystem services ranging from maintenance of biodiversity to the regulation of urban climate and mitigating the urban heat island effect caused by the large areas of heat absorbing surfaces.</td>
</tr>
<tr>
<td>Pollution Control</td>
<td></td>
<td>Contemporary studies on urban green spaces consider the complex urban eco-system and the conservation thereof to maintain a natural ecological network for environmental sustainability in cities, reducing air and noise pollution remarkably.</td>
</tr>
<tr>
<td>Biodiversity and Nature</td>
<td></td>
<td>Green spaces function as protection centres for the reproduction of species and conservation of plants, soil and water quality. A functional network of green spaces is important for the maintenance of ecological aspects of a sustainable urban landscape, with greenways and use of plant species adapted to the local condition with low maintenance cost, self-sufficiency and sustainability</td>
</tr>
<tr>
<td>Conservation</td>
<td>Energy Savings</td>
<td>Using vegetation to reduce the energy costs of cooling buildings has increasingly been recognised as a cost effective reason for increasing green space and tree planting in temperate climate cities.</td>
</tr>
<tr>
<td>Economic benefits</td>
<td>Property Value</td>
<td>Areas of the city with enough greenery are aesthetically pleasing and attractive to both residents and investors. Indicators proof that green spaces and landscaping increase</td>
</tr>
</tbody>
</table>
Green space planning and provision thus has the ability and potential to contribute positively to some of the key agendas in social and lively challenges including social inclusion, health, sustainability, and urban renewal (Swanwick et al., 2003:94). Green space planning is focused on creating a social function for people, therefore if green spaces are planned and implemented efficiently with the necessary quality, inclusion of various functions, good access and sufficient management the social aspect of green spaces will be improved, consequently enhancing the liveliness of the area which forms nice spaces that are inviting to people (Soholt, 2004:8).

When bringing lively-planning approaches and green-planning initiatives together, versatile public spaces can be created that celebrate the uniqueness of a place, while encouraging alternative uses of the space and improving possibilities for staying in the space (Hobart City Council, 2011:2). This integrated approach seeks to turn the conventional way of planning up-side down and introduce a more controversial planning process, focusing on the people-scale and actual users of the space.

6. SOUTH AFRICAN REALITY

Rural communities and the development thereof continue to be one of the main priorities within frameworks and constitutions guiding the economic and social development of (especially developing) countries. The ISRDS (Department of Rural Development and Land Reform, 2000:2) substantiates this statement by referring to the pervasiveness of poverty and poor delivery of basic services in rural areas as a primary constraint regarding a country’s development efforts. In South Africa, rural development is an even more predominant challenge as it is estimated that half of South Africa’s population lives in rural areas (Campbell et al., 2008:4) and that three quarters of this country’s people living below the poverty line or MLL (minimum living level) live in these rural areas (Department of Rural Development and Land Reform, 1997:4). Therefore planning for rural communities and identifying or creating new approaches to rural development should receive a great deal of attention, as this is the core of addressing government’s commitment to eradicate poverty (Department of Rural Development and Land Reform, 1997:4).

The concept of lively planning and green space provision are often perceived to be applicable to developed countries, and especially urban areas, as it is considered a luxury and not a necessity in terms of planning priorities (Cilliers, 2013). This is however not the case as lively planning and green space provision can contribute to the quality of life and quality of environment of people living in rural areas,
often areas in greatest need of such initiatives. The lack of lively planning and the provision of efficient public places contribute to policymakers’ challenge of balancing a city (or community’s) desirability and affordability (Philips, 2010:7). Worpole and Knox (2007:1) enhance the importance of public space within successful regeneration policies in order to plan for, or create, public spaces that will support sustainable communities.

Rural areas are poorly endowed with public green spaces (McConnachie & Shackleton, 2009:244) with less than half of the inhabitants (43%) feeling safe using these public green spaces in townships (Walton et al., 2011:17). Green space planning potentially has a significant number of social benefits and values if managed and maintained to a certain quality. If not, the environment and society may experience negative effects where green spaces become vacant spaces for dumping and littering as well as possible security threats (Walton et al., 2011:2) and safety issues (Walton et al., 2011:17) (as experienced in small towns in the Eastern Province of South Africa including Zwelitsha, Butterworth, Bisho, King-Williams town etc.) or become green walls that keep different communities apart (Barbosa et al., 2007:194). This is supported by Baycan-Levent (2007:5) when stating the importance of managing and maintaining rural green spaces and amenities to address current quality decay and dereliction in order to create ‘...attractive, clean and safe places to enjoy’.

7.1 Vaalharts Water Innovation Project

A local case study was analysed to evaluate the relevance of lively planning approaches within the rural South African context. The Vaalharts region was selected, situated within the North West and Northern Cape Provinces of South Africa, and claims the second largest irrigation scheme in the Southern Hemisphere namely the Vaalharts Irrigation Scheme. The municipality covers an area of 82077 ha, comprising of the three main towns, Hartswater, Jan Kempdorp and Pampierstad. The Hart River runs through the Phokwane Municipality, along with the Vaalharts canal system, which is the main water contributor to the irrigation system for the farmers in the area (Coetzee, 2011:7).

The Vaalharts Water Innovation Project was introduced in this area as a multi-disciplinary project managed by the North-West University, Vaalharts Water Association and the Phokwane Municipality with the emphasis to build inter-sectorial partnerships and holistically improve rural health and well-being in the area. A comprehensive, integrated needs assessment in the broader social, political and economic context of this rural area was carried out in the municipalities of Greater Taung and Phokwane (Coetzee, 2011). “Findings highlighted the high vulnerability in this region, characterized by inadequate infrastructure and basic services, as well as poor health statuses and low income-earning opportunities. Since the end of 2011 various research programmes, interventions and workshops have been implemented within these communities, employing multi-level research on sustainable livelihoods, health and well-being to uplift, empower and sustain these vulnerable rural areas” (Coetzee, 2011). Recently the concept of a water park was introduced as part of the Northern Cape’s Department of Agriculture, Land Reform and Rural Development call on the rehabilitation and upgrading of the Bulk Water Infrastructure and Agri-Business Development in the Vaalharts Irrigation Region (Department of Agriculture, Land Reform and Rural Development Northern Cape Province, 2011:2). The waterpark initiative was set to build on the current available infrastructure (the water irrigation system) in the Vaalharts area and create an opportunity for the redeveloped the space, while improving agricultural activities in the area, as well as the socio-economic conditions. As part of the WIN research team, Urban Planning students of the NWU had the opportunity to explore possibilities for the spatial development of such a water park, taking lively planning and place-making concepts into account. The initiative of a water park was introduced to local communities of the Vaalharts area by means of public
participation processes and making use of water facilities to teach residents and especially children about water safety (refer to Figure 3). Three master’s studies were completed in 2013 as a result of this research. The aim was to evaluate the status quo in terms of possibilities to host a lively space, as well as evaluate the proposed water park in terms of applicability and relevance of lively planning approaches and green space planning within the local South African rural context. This paper is a collective result of the different conclusions of the post graduate research findings, based on the status quo of the area (refer to Figure 2) and the proposed water park (refer to Figure 3).

Firstly, the status quo of the case study was evaluated based on the possibilities to adhere to and enhance place-making principles (attributes) as captured in Table 1, namely sociability, uses and activities, comfort and image, access and linkages, along with the factors of successful public spaces as captured in Table 2, namely identity, attractions, amenities, flexibility, seasonal, access and visibility. Concepts listed were identified within the case study area (within current status quo) and thus concluded as elements which would support the concept of a lively space, planned and developed in the Vaalharts region, as captured in Table 4.

<table>
<thead>
<tr>
<th>Place-making attributes</th>
<th>Successful place factors</th>
<th>Elements which would support lively spaces</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access and linkages</td>
<td>Access</td>
<td>Pathways, circulation</td>
</tr>
<tr>
<td></td>
<td>Visibility</td>
<td>Continuity, convenience possibilities</td>
</tr>
<tr>
<td>Comfort and image</td>
<td>Amenities</td>
<td>Textures, colours</td>
</tr>
</tbody>
</table>

Figure 2: Status quo of the Vaalharts area evaluated in terms of lively space possibilities. Source: Aurecongroup (2013).

Figure 3: Introducing the concept of water parks as a lively planning approach in the Vaalharts region. Source: Vaalharts Water (2013:7).

Table 4: Status quo analysis of the Vaalharts area in terms of possibilities to host a lively space
Table 5: Evaluation of rural public space in terms of lively planning objectives

<table>
<thead>
<tr>
<th>Theoretical concepts that define lively spaces</th>
<th>Place-making principles</th>
<th>Successful public space objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluation of proposed water park</td>
<td>Uses and activities</td>
<td>In terms of realising as a lively space</td>
</tr>
<tr>
<td></td>
<td>Sociability</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Comfort and image</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Access and linkages</td>
<td></td>
</tr>
<tr>
<td>Seasonal and attractive space</td>
<td>x</td>
<td>A safe public space created for residents where they can actively and passively interact with the environment. Inviting space for diversity of users. Multi-use possibilities of the space and accessible to all residents. Good access in terms of walking distance and in close proximity of residential areas and schools. Child-friendly space planned with adequate facilities, infrastructure and activities.</td>
</tr>
</tbody>
</table>
The proposed water park analysis identified adequate possibilities to link lively planning and green planning approaches and incorporates such approaches within the case study area. It was found that the development of such a water park would contribute to the creation of a successful and lively public space, planned to be a safe space, integrating the natural environment and enhancing the local character and community cohesion. It was evident that a rural space within the Africa context, can be developed according to lively planning objectives, incorporating green spaces to enhance liveliness.

7. **CONCLUSIONS**

Planning is a continuous process of anticipating and preparing for foreseeable future changes (Cilliers et al, 2011). This paper aimed to introduce place-making, lively planning approaches and green planning approaches as part of an attempt to plan for future African cities and spaces. The core findings derived from this research include the following:

1) Africa and the African landscape provide adequate possibilities for the planning and development of lively spaces. The success of a lively place lies in the continuous process of enhancing the functionality of the area, adapting to the social change and needs of the residents and environment. It is about realizing it is the creation of a place and not just a design, and focusing on form that supports function. Rural communities and the development thereof continue to be one of the main priorities worldwide. Lively planning and place-making approaches can be beneficial to rural areas, as illustrated in the Vaalharts case study, where the current infrastructure and green space were used as a catalyst to transform space into functional place, by means of lively planning initiatives. Place-making principles and factors of successful public spaces can be applied within a rural context, adapted to contribute to the local needs and uniqueness of the area and setting the scene for the development of a lively place.

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong identity</td>
<td>Well located space, integrated with the surrounding environment. Identity in terms of the current Water Irrigation System, transform to a lively place and water park. Public place with strong identity that improves social cohesion of the local residents. Integrative design of space that provides for interactive use of a diversity of users</td>
</tr>
<tr>
<td>Providing flexibilities and amenities</td>
<td>Natural green space and wide range of vegetation, trees, shrubs as part of current reality. Opportunity to enhance biodiversity and green space benefits with development of water park. Possibilities of integration of different textures, colours and facilities in the proposed water park and lively public space.</td>
</tr>
<tr>
<td>Access and visibility</td>
<td>Socializing opportunities in terms of variety of pathways and seating options to improve circulation and integration. Well established linkages can be enhanced to improve continuity and convenience of the space. Visibility in terms of entrances and adequate signage provision.</td>
</tr>
</tbody>
</table>
2) Planners need to think outside the box and introduce initiatives that will enhance liveliness. The lively planning approach is focused on creating versatile, diverse and integrative functions within the urban (and rural) environment, and planners need to seek such initiatives (and public space functions) that support such approach. Good public spaces are always flexible, responding to the evolution of the environment and has a strong focus on identity, attractions, amenities, flexibility, seasonal usage, access and visibility.

3) Place-making and green planning should pay a more integral role in African spatial planning processes. The relationship between lively planning approaches and green-planning approaches should be strengthen as green space planning has the ability and potential to contribute positively to some of the key agendas in social and lively challenges including social inclusion, health, sustainability, and urban renewal. Such an integrated approach, linked to current spatial planning processes, would result in the development of versatile public spaces, created to celebrate the uniqueness of a place, while encouraging alternative uses of the space for a variety of users (Hobart City Council, 2011:2), as needed in the African context.

4) Remember the importance of including communities in the planning process in order to understand the African (diverse) needs, as in the Vaalharts case study, and to enhance the planning and development of successful public spaces. Really understanding the local conditions, dynamics and opportunities; and working with local communities utilizing innovative participatory engagement tools and facilitation methods is essential (SAPI, 2014). “Great Places” ought to respond to the needs and aspirations of their communities, be inclusive, and facilitate and enrich human and social interaction (SAPI, 2014).

8. ACKNOWLEDGEMENTS

This research (or parts thereof) was made possible by the financial contribution of the NRF (National Research Foundation) South Africa. Any opinion, findings and conclusions or recommendations expressed in this material are those of the author(s) and therefore the NRF does not accept any liability in regard thereto.

9. REFERENCES


Baycant-Levent & Nijkamp 2004


Customary Land Conflicts in Peri-Urban Areas of Botswana: Perceptions of Rights Holders

Keledi M. Rammapudi¹, Dr. Mutakela Kingsley Minyoi²

¹ Physical Planner
Gaborone City Council
Department of Physical Planning, Estate Management and Housing
Private Bag 0089, Gaborone, Botswana
Tel: +267-71750908 / Fax: +267-3900141
thato.elsiek.rammapudi@gmail.com

² Lecturer
University of Botswana
Department of Architecture and Planning
Private Bag UB 0061, Gaborone, Botswana
Tel: +267-71222650 / Fax: +267-3952309
minyimk@yahoo.com

Abstract

Land is a prestigious resource with economic, social and cultural value; hence access to land is very important. Customary land use, administration and management in Botswana dates back to the pre-colonial and colonial times. However, there is a long standing conflict with regard to ownership and control of customary land in Botswana. This appears to be as a result of the various (mis)interpretations of ownership and control of customary land in Botswana subsequent to land tenure reforms, and the enactment of customary land legislation, specifically the Tribal Land Act of 1968. The conflicting (mis)interpretations are between land rights holders, land authorities and tribal leadership. Rights holders perceive themselves to have absolute ownership and control of customary land, and therefore assert to hold land in their personal and private capacity. On the other hand, the land authorities, in particular the so-called Tribal Land Boards dispute this assertion by rights holders, insisting that they only have use rights to land. The result of these conflicts over ownership and control of customary land have led to negative impacts on customary land use administration and management, and have impaired the livelihoods of households, particularly those who have previously owned ploughing fields and homesteads. This paper seeks to explore and assess the different interpretations assigned to the concept of land ‘ownership’ and ‘control’ in respect to customary land in Botswana. As land becomes scarce in urban areas the focus to meet demand for land turns to customary land, especially in peri-urban areas. The focus of this paper is to explore the perceptions of households, tribal leadership, land authorities and other key informants with regard to ownership, control and management of customary land in a peri-urban area.

Keywords: Customary Land Tenure; Peri-Urban Area; Land Rights Holder; Botswana
1. INTRODUCTION

Land is a prestigious resource and deemed to be scarce. It has an economic, social and cultural value hence access to land is very important. Through the right to land a person can attain a livelihood. It is thus important to ensure the rights to land of all individuals, especially the vulnerable members of society such as women, tenants and pastoralists (Collin and Bornegrim, 2010). The rights to these resources are established and protected through tenure regimes (Adjei, 2011). Land tenure may be defined as the terms and conditions, on which land is accessed, held, used and transacted (Adams et al, 1999). Land tenure systems are diverse and complex. They take different forms and have different objectives. They can be formal or informal, statutory or customary, permanent or temporary and of private ownership or of common property (IFAD, 2008). Customary land tenure is land vested in a group of people often called a community or tribe, members of which enjoy use rights in the land (Akrofi and Whittal, 2011).

The rapid growth that Botswana has experienced since gaining independence in 1966 brought with it new challenges that needed to be addressed. According to Mathuba (2003) Botswana is not freed of problems relating to land. The country has had to encounter many land issues. For instance, the processes and procedures for land allocation have not been regarded as being transparent and efficient or have been selectively followed for the benefit of influential groups only. The processes have also been deemed cumbersome and time consuming. Despite these processes and procedures having been reviewed, they still fail to deliver the expected effects. Some of the complaints and actions of land rights holders may be justified but some reflect the pressure emanating from socio economic and cultural needs of the people (Mathuba, 2003). Ever since the passing of the Tribal Land Act of 1968 and despite amendments and reforms, the understanding of who owns or should own, control and manage customary land in Botswana remains a controversial and vexing issue. There appears to be divergence in the interpretation of ‘ownership and control’ of customary land subsequent to land tenure reforms by the Tribal Land Act of 1968 and its subsequent amendments. It appears that while Land Boards believe they own customary land and have the mandate to control and manage rights on customary land as outlined in the Tribal Land Act, conflictingly land rights holders also think they have absolute control and ownership of customary land once allocated to them.

A number of studies have been done on the effectiveness of customary land tenure reforms in Botswana, but none have really focused on investigating the perceptions of land rights holders regarding ownership and control of customary land in Botswana. The study by Adams et al (2003) only articulates an overview of land tenure policy and practice in Botswana. Ijagbemi (2006) evaluates the effects of Botswana’s land reforms on social transformation. The nature, reason and impact of the various interpretations of ownership and control of customary land in Botswana have neither been documented nor adequately explored. Land rights holders and institutions responsible for the management and administration of customary land in Botswana have not been given the opportunity to articulate their views, opinions and understanding of this subject matter. The major goal of this paper is to explore and assess the different interpretations of land ‘ownership’ and ‘control’ in respect of customary land in Botswana. More specifically the paper seeks to explore current and past perceptions of peri-urban residents and interpretation of land ‘ownership’ and ‘control’ before and after the enactment of the Tribal Land Act. The key research question is ‘what causes the misconceptions and various interpretations to ownership and control of customary land in peri-urban areas of Botswana?’

This paper is divided into four parts with the literature review forming the first part, in which the general experiences and similar studies on the issue are analysed and articulated. The second part relates to the approach and methodology followed in undertaking the study, which also outlines the challenges encountered. The third part of the paper consists of the analysis of empirical evidence gathered in the study area. The last part is the conclusion, which draws out pertinent issues from the study.
2. LITERATURE REVIEW

For most of pre-colonial Sub-Saharan Africa, with its low population densities and relatively limited population movements, land was an abundant resource that all community members had access to in order to subsist. Land use was the concern of the living and the dead, as well as the unborn. Under these conditions where land was ample and population rates were low, land rights were rarely defined since they were rarely questioned (Knight, 2010). But today the realisation that land is socially embedded invites us to think of land as a site of complex interlocking tenure rights. Common expressions such as 'ultimate or sovereign rights, rights of control, ownership, possession, use and usufruct have often made understanding the scope, nature of rights and other claims to land unclear (Cousins, 2009). Most African rural populations continue to hold their land through the rules and processes of local tenure but in the context of legal pluralism. The nature of local norms and practices vis a vis formal legislation and policies is a much debated issue (Derman, Odgaard and Sjaastad, 2007). The present configuration and conception of customary land are rooted in political and economic transformations that occurred during the colonial domination. “The authoritative discourse constructed around customary land tenure need to be understood within the historical, economic and political contexts in which they originated and continue to exist” (Derman, Odgaard and Sjaastad, 2007).

Customary land tenure like many social systems is subject to evolution and a number of factors have influenced change in customary land tenure systems. For example the rules to access, use and transfer customary land have been changed to adapt to the demand for land, to become accustomed to the changing context of commercialisation, to increase security of tenure and to adjust to the population growth (Kalabamu, 2000). Similarly too, land tenure reform, which is a deliberate programme intervention by the State designed to change human to land relationships in society. Many African governments and international institutions such as the World Bank have too initiated a redrafting of land laws and review of land tenure reforms which have become inconsistent and ill adapted to the actual present day state of affairs (Platteau, 1995). “Customary law today is a blend of customary African laws and western/colonial laws, coloured by the forces of globalization, technology, capitalism and socialism, local, regional and international political economies, decades of development work, and multiple other factors” (Knight, 2010). Many African countries have undertaken land reforms in one form or another (Ubink, 2008). The 1990s saw tenure reforms in Africa, including commissions of enquiry in Tanzania, Zimbabwe and Malawi; national conferences in Namibia and Niger; new tenure laws in Uganda, Mozambique, Tanzania, Malawi, Namibia, and South Africa; and land commissions, public consultations or pilot programmes in South Africa, Ivory Coast, Mali, Niger and Swaziland. The reforms have often focused on reconfiguring the relationship between customary and statutory tenure in law, and attempting to define a new legal status for indigenous tenure systems (Adjei et al 2009). A major theme in the debates on African land tenure, in both the colonial and post-colonial periods, is the perceived need to provide certainty and clarity on who holds what kind of rights, within which boundaries. With the view that the greater the degree of clarity and certainty the more secure the land rights and the lesser the conflicts (Cousins, 2009).

Before any issues relating to land tenure can be debated, it is meaningful to first appreciate the pre-colonial and colonisation origins of the tenure systems (Ng’ongo’la, 1993). Therefore to adequately investigate the issue of customary land ownership and the conflicting interpretations, it is worthwhile to appreciate the chronology of events in customary land use, management and administration in Botswana. Before 1970 when Land Boards were introduced in Botswana, customary land was administered by Chiefs under customary land laws and systems. The Chief was vested with the power to administer the use, allocation and transfer of customary land; and upon allocation nothing was issued as evidence of rights to land. The knowledge of who was allocated which piece of land resided in the minds of the people present at the time of allocation (Malatsi and Finnstrom, 2011). It is important to note that the Chief was the custodian and not the owner of the land. Ownership of customary land was vested in the entire tribe (Kalabamu and Morolong, 2004). An imperative feature of customary land
tenure laws during the pre-colonial era was the ‘Right to Avail’ that was automatically shared by all people belonging to a particular tribe (Kalabamu, 2000). Customary land was allocated free and each family was entitled residential and arable land (Mathuba, 2003).

2.1 Pre-Colonial Customary Land Tenure System

Prior to the then BechuanaLand, now Botswana, being granted the Protectorate status in 1885, all land in Botswana was owned by the various tribes in the country, with the Chief as the overall custodian of the land. The Chiefs of these various tribes held the land in trust for the tribes (Malatsi and Finnstrom, 2011). The traditional tenure system on customary land hinged upon a three-tier system of land, namely residential land, ploughing land and grazing land. Under this system, land was first allocated to wards, in the form of kinship groups based on descent. Traditional authorities within each ward then allocated land to individual households (Government of Botswana, 1983). Each household was entitled to a residential plot in the village and an arable field in the outskirts and outlying areas of the village. Individual households had their own parcels of residential and ploughing land. Women accessed land only through their husbands, fathers, brothers or other male relatives belonging to their lineage (Kalabamu, 2000). No land was allocated to women whether single, divorced or widowed. Every male son was also entitled a piece of land, usually obtained from his father’s land holding or reserved ward holding (Kalabamu and Morolong, 2004).

Rights to residential land were perpetual and permanent. The rights to land remained in the family as long as they actively used the land (Adams et al 2003). Once built upon the land remained the exclusive property of the family occupying it. No outsider could claim rights to that parcel of land as long as it was being used. Land which was no longer being used by the family reverted back to the tribe for redistribution by the headman (Kalabamu and Morolong, 2004). However, according to Schapera (1994), even when families left land unused and relocated to other villages or wards, the land could never be claimed by anybody else without the permission of the particular family. It remained unoccupied with the belief that it belonged to someone. Anytime they wished the family could come back and reoccupy that land. The great numbers of matlotla or abandoned homesteads which we see in bigger villages in present Botswana are a clear evidence of this phenomenon.

Although the concept of individual ownership was not known, the rights to residential land were perpetual and permanent (Ng’ongo’la, 1993). The rights to access, use and transfer residential land were secure and remained in the family as long as they actively used the land. A holder could protect his rights by civil action against any person, even the Chief, except when land needed to be acquired in the public interest (Adams et al 2003). Arable land included the same rights as residential land except that a holder of arable land only had the exclusive occupation right while land was under cultivation. After cultivation the land reverted to communal use (Cullis and Watson, 2005). All unallocated land remained communal. Unallocated land was accessible to all and was used for communal activities such as grazing, hunting and gathering (UN Habitat, 2010). Every family belonging to a particular tribe had the right to graze and harvest natural resources from all unallocated customary land or land that was not in active use at a particular time (Government of Botswana, 1993). These customary rules and procedures have secured the land rights of the great majority of populations for generations (Adams et al 2003). These are the customary laws and practices which prevailed before the Protectorate years when the administration of land revolved around the Chief (Malatsi and Finnstrom, 2011).

2.2 Colonial Customary Land Tenure System

In 1890 the Chiefs of the five Tswana tribes (Bakgatla, Bakwena, Bangwaketse, Batawana and Bangwato) were requested by the British Colonial Administration to identify the boundaries of their tribal territories. The tribul territories became known as Native reserves and remained under the absolute rule and control of their Chiefs (Machacha, 1986). The British expected however that customary rules and procedures for accessing, using and transferring customary land be the same in all tribal reserves.
The creation of tribal reserves sought to protect tribal land from seizure by Europeans not for the British to take over Bechuanaland. During the colonial period, Botswana were expected to live in separate tribal compartments. Many of the people had access to land as residents in one of the Native reserves (Morton and Ramsay, 1987:1). The administration of land remained with Chiefs. However above every Chief was a white Magistrate and above him an assembly of white commissioners extending up to the Dominions Office in London (Morton and Ramsay, 1987:1). It is evident from this literature that even during the colonial period Chiefs still had complete control of customary land. The phrase ‘tribal territories’ also automatically implies that ownership of each customary or tribal area was placed collectively with each tribe, however with the Chief as keeper.

The colonial administration did not in any way interfere with the proceedings on how land was held by each tribe (Malatsi and Finnstrom, 2011:3). It is evident that there was no attempt by the colonial administration to change the Tswana system of land tenure. This is almost certain because of the verity that when they arrived the intention of the colonial administration was not to grab land and lay claim to it, but to preserve the territory of at that time Bechuanaland from seizure by Europeans (Tlou and Campbell, 1997: 204). When asked for their views regarding ownership and control of customary land during the colonial or protectorate years, some elderly respondents supposedly around during the time of colonisation expressed that the land remained among the tribes, except in some regions where colonial masters allocated themselves large portions of fertile land. Key informants confirmed the views of the respondents that ownership of customary land remained within the respective tribes and that colonial masters only took control of Crown land and maintained complete ownership of the land they had acquired for themselves as Freehold land. However improved crop production methods led to some members of the tribe claiming private rights over fields all year round and therefore imposing a restriction on other members to use the land during non-ploughing seasons. Private rights to land were also claimed by some elites as a result of the construction of water sources for their livestock. In addition to this money was paid to Chiefs by those who sought land rights of various kinds. This gave rise to the advent of land sales and commoditisation of customary land (Kalabamu and Morolong, 2004).

2.3 Post-Colonial Customary Land Tenure System

Following independence in 1966 the distribution of land in Botswana was as follows: tribal land (also called customary land) 70%, state land 25% and freehold land 5% (Mathuba, 2003). In the present day, the access, use and disposal of customary land in Botswana is governed by the Tribal Land Act Cap 32:02 and its subsequent amendments. The Tribal Land Act of 1968 was the first legislation to propose changes to the Tswana tribal system of land tenure which had been left intact after the proclamation of tribal reserves during the colonial era (Kalabamu and Morolong, 2004). It is one of the numerous Acts in Botswana’s national laws governing land and its administration. The Act mainly regulates the Land Board structure and procedures, including the procedure for carrying out Certificates of Customary Land Grant and Grants of Common Law Leases (Laws of Botswana, 2010). Changes in the administration of land in Botswana have occurred on an incremental basis to address prevailing needs (Malatsi and Finnstrom, 2011). Correspondingly the Tribal Land Act was never meant to displace the Tswana tribal system of land tenure but to improve it. The Act did not completely change the operations by which customary land tenure was previously administered. When it was enacted the Tribal Land Act was proclaimed as a mechanism for modernising the existing system of customary land tenure in Botswana while preserving existing customary land tenure principles (Adams et al 2003). However, the Tribal Land Act introduced considerable changes with regard to modernising land administration. Authority over land previously vested in Chiefs was transferred from the Chiefs to the Land Boards (Adams, 2004). Section 3 of the Tribal Land Act outlines the establishment of Land Boards and defines their role. Section 13 transfers powers previously vested on Chiefs under customary land law in relation to allocation, access and use of customary land rights to the Land Boards. The establishment of Land Boards in Botswana started in 1970. At present there are 12 main Land Boards and 39 Subordinate Land Boards in Botswana. The Subordinate Land Boards have the opportunity to work at a more local level.
than the main Land Boards. Subordinate Land Boards are therefore able to work at a much closer level with the inhabitants. However the catchment area or area of jurisdiction for Land Boards can reach up to 300 km from base (Collin and Bornegrim, 2010). The function of the Land Board in relation to customary land tenure include: the granting of rights to use land; the cancellation of the grant of any rights to use land; the imposition of restrictions on the use of tribal land; authorizing the transfer of customary land and all other powers previously vested in Chiefs under customary law in relation to land conferred upon it by this Act (Collin and Bornegrim, 2010).

Individuals allocated land subsequent to the establishment of Land Boards are issued with certificates of Customary Land Grant. These grants give the holder only customary use rights over land (Government of Botswana, 1968). By law, land holders in customary areas do not own the land but hold it in terms of customary rights. These rights can be transferred from one person to another but in principle all that can be sold are the developments on that land (Malatsi and Finnstrom, 2010). However the use rights have not been spelt out in the Act. The rights under customary grants are not readily transferable nor can they be encumbered. The Tribal Land Act however made provision to give people rights to land that can be used as an economic asset by the introduction of common law leases (Mathuba, 1993). On application being made to the Land Board and a survey performed, a customary grant may be converted to a Common Law Grant of Lease (Adams, 2004).

The administration of land by Chiefs was not systematic, lacked record keeping and was vulnerable to corruption. For this reason the newly independent government of Botswana found it worthwhile to change the terms and conditions through which customary land was managed and administered. The most radical move to reforming customary land tenure was by the introduction of the Tribal Land Act of 1968 through an Act of Parliament (Ng’ongo’la, 1993). The passing of the Tribal Land Act as an instrument for customary land tenure reform sought to modernise, formalise customary land administration, to reduce uncertainties as a result of allocations by Chiefs; and also to promote socio economic development (Mathuba, 2003). However critics assert that the establishment of Land Boards was a strategy by government to centralise the management and administration of customary land (Kalabamu and Morolong, 2004). The Tribal Land Act under Section 10(1) transferred all allocation and administrative powers that were previously vested in Chiefs under customary land law to the Land Boards. Other key changes included the fencing of arable lands, the introduction of common law leases and the relaxation of allocation to allow independent allocation of land to individuals (Kalabamu, 2000). Eligible applicants allocated land by the Land Boards are issued a certificate of customary land grant. This form of grant is made available to citizens of Botswana by the Land Board for a given number of years and property held under the customary land grant is not capable of being mortgaged. However, a Customary Land Grant may be converted to a Common Law Lease, and the land subject to this grant can be mortgaged (Mathuba, 2003). All unallocated land remains in the traditional manner as common property governed by traditional rules of access and usage (Kalabamu, 2000).

However, there have been challenges with the implementation of the Tribal Land Act as a tool for customary land tenure reform. In 1991 the President of the Republic of Botswana commissioned an enquiry to investigate and report on land problems in Mogoditshane. The Commission verified that there was a complete disregard of the law as endorsed by the Tribal Land Act especially the role of Land Boards in land arrangements in Mogoditshane. Ploughing fields had been subdivided and transferred without the approval of the Land Board (Ng’ong’ola, 1993). Some tribesmen also made claims over abandoned, unused or unoccupied land as land which was tilled or occupied by their forebears (Ng’ong’ola, 1993). The commission reported that land rights in Mogoditshane had been acquired both from tribal authorities before 1970 and from Land Boards after 1970. Some rights had been purchased through the acquisition of developments from other land holders. On the whole, the increased demand for land and the pursuance of actions of non-compliance continued to increase the delivery of land through informal channels in peri urban areas like Mogoditshane contrary to the aspirations of the Land Boards. To address these challenges the government amended the Tribal Land...
Act a few times before introducing the major amendment in 1993. The most prominent feature of the amendments of the Tribal Land Act in 1993 was the removal of Section 10(2) because of the different interpretations to which it had lent itself. Henceforth no man can hold customary land in his private and personal capacity. In addition to this, the phrase ‘tribesmen of the area’ was replaced by ‘citizens of Botswana’ which meant any Motswana national was entitled to acquire land anywhere in the country regardless of their clan (Good, 1994).

2.4 Demands for Land in Peri-Urban Areas of Botswana

Despite a decline in the national and urban population growth rates during the last 2011 census, a number of villages have continued to grow rapidly. These fast growing villages include among others Mogoditshane and Tlokweng. As a result there has been an increasing demand for land in these peri-urban areas. The demand for land particularly in Mogoditshane dates back to 1980. There have been increasing claims by individuals and families over abandoned, unused or unoccupied land as land belonging to them or their predecessors. One of the factors which lead to an increased demand for land in peri-urban areas is that the government’s various administrative systems have not been able to keep pace with the demand for urban and peri-urban plots (SARPN, 2008). Land Boards in peri-urban areas have been overwhelmed with applications for residential plots. The applicants consist of those with a genuine need for land and those wishing to benefit from the increasing values of land (Kalabamu and Morolong, 2004). As land dealings in Mogoditshane and other peri-urban areas increase, land holders choose to put land on market and not comply with formal land laws. This may be attributed to Sections 15 and 38 of the Tribal Land Act (Rakodi and Leduka, 2004). This manipulation or non-compliance to customary land law may be attributed to fronting or the inconsistent interpretation of ownership and control of customary land subsequent to the reforms by the Tribal Land Act.

The demand for land which exceeds supply has also led to squatting in peri-urban settlements such as Mogoditshane (SARPN, 2008). As part of its recommendations the 1991 Presidential Commission stipulated that Land Boards evict illegal land occupiers after 3 months’ notice. The government rejected this recommendation and instead decided that citizens who had acquired land or occupied it illegally be charged a penalty fee upon which the plot would be regularised and the occupier issued a certificate of Customary Land Grant (Kalabamu and Morolong, 2004). However, in subsequent years the government returned to demolition and clearance of squatter housing. This may be attributed to the increased demand for land and lawlessness characterising informal land market delivery. However, contrary to this the legal system of Botswana has found the actions of rights holders to be legitimate (Kalabamu and Morolong, 2004). This contradicts the views of Land Boards who assert that beneficiaries are only granted usufruct rights and that these go away once the rights holder breaches the way in which the plot must be held. That is people allocated land for agriculture are supposed to use the land for only agriculture not for any other activity. In addition to this the Land Boards argue that land no longer needed for that particular use or no longer required be reverted back to the ultimate title holder, in this case the Land Board (Kalabamu and Morolong, 2004). From the assertions above, it appears that the interpretation of rights holders contradicts the interpretation of Land Boards. The interpretation of the legal system is also incoherent with the interpretation of the Land Boards.

3. APPROACH AND METHODOLOGY

A number of studies on customary land tenure reforms have been carried out in Botswana. These studies focus particularly on the effectiveness of the reforms in Botswana. The study by Adams, White and Kalabamu (2001) gives an overview of land tenure policy and practice in Botswana. Ijagbemi (2006) evaluates the effects of land reforms on social transformation. Kalabamu (2000) discusses and gives an impression of land tenure reforms in East and Southern Africa. There is a dearth of studies carried out to bring to light perceptions of land rights holders regarding ownership and control of customary land. Despite the fact that government departments and statutory bodies are empowered to manage customary land in Botswana, land owners and land rights holders themselves also have significant powers over the
management of the parcels of land they hold. It is thus imperative to obtain their views regarding the subject matter and in order to begin to unravel and resolve the seemingly unending customary land conflicts. The growth of peri-urban settlements and the increased demand for land has led to land owners and land rights holders around Gaborone converting and selling land to those in need of land through informal channels (Kalabamu and Morolong, 2004). Contrary to the policy of free customary land allocation, a market has developed for land in peri-urban areas (SARPN, 2008). Hence the competing claims to ownership and control of customary land. Although some of these problems occur in rural and urban areas, they are more pronounced in peri-urban areas. Mogoditshane as a peri-urban area is an ideal area for the purpose of this study because it has been a hot spot where property relations have been subject to change; in addition to this there is also a high uncertainty regarding titles, tenure and a number of problems relating to eviction, squatting and conflicts over land.

In attempting to understand the various interpretations to the concept of ownership and control of customary land and its impacts on livelihood; the qualitative methods of research were used to enquire into the perceptions, experiences, behaviours, value systems and lifestyles of residents. The qualitative method of research unravels things which are only subjectively understood by the respondents (Jacob, 1988). The qualitative method of research is suitable in that it seeks to understand how participants make sense and derive meaning of a situation or the meanings they have constructed about their world and their experiences. The paper then draws conclusions based upon what is obtained regarding experiences, views and interpretations of the people being studied. Data collection techniques such as household interviews, key informant interviews and documentary research were used. The following data collection techniques were used in the study: household based interviews; key informants interviews; and documentary search. Some are primary data while others are secondary data collection techniques. Primary data is data which is not readily available and documented, and is usually first hand evidence from respondents. It is generated by people who experience the events or conditions being documented. Whilst secondary data is accounts of events and documented evidence which were created well after the event occurred. These are usually consulted to determine what others have already reported about a particular issue or phenomenon.

Household interviews enabled face to face discussions with human subjects. The central purpose of the interviews was to engage in dialogue with the participants and to elicit their interpretations and perceptions about ownership and control of customary land. The interviewees were asked questions in Setswana (national language) but not influenced in their answering. A question checklist was crafted for the different categories of respondents because each category of respondents is unique and different. The interview checklist for households was open ended in order to allow the respondents to be flexible and detailed in their answers. Questions were directed in such a way that they captured the participants’ experiences, beliefs and convictions about the subject matter. Participants were allowed to express themselves in either English or Setswana in formal dialogue. The duration of the interviews varied depending on the insightfulness of the discussions with the participant. Purposive sampling technique was used to identify and select respondents to be interviewed. The sample framework constituted the groups of people thought to be information rich from the judgment of the researcher. The presumed sample size was 20 households. However the sample size changed depending on the content of data collected.

Households selected and interviewed included: households allocated land before 1970 (to deduce from their experiences how they held customary land before the establishment of Land Boards); households allocated land by Land Boards after 1970 (to deduce from them experience of the transition in land administration); households who have sold land; households who have bought land; households who have lost land; and households who have been evicted from their homesteads. Interviews with key informants also entailed the use of a question checklist and 5 key informants were interviewed. Interviewing the key informants enabled the pursuance of broad and profound discussions regarding the subject matter. Before actually beginning the interviews, the question checklists used as tools for
data collection were piloted to check for any vagueness. A small purposive sample was engaged, which gave guidance on the length, structure and wording of the checklist and appropriate amendments were made. Some of the interviews were tape recorded after respondents consented and all the interviews were supplemented with the writing of field notes. Field notes stemmed from what the researchers observed and experienced in the course of collecting data. Questions that came up during the interviews, but were not included in the checklists were noted for reference during analysis. Field notes were dated so that they could later be associated with recorded and written responses.

Key informants interviewed included: Officials from Mogoditshane Sub Land Board; Chief; Headman; and Researcher/Scholar. To identify households and key informants to be interviewed, the snowballing technique was used. Informants and respondents who had been purposively selected to participate in the study were asked to recommend persons required for the study or whose participation in the study would be worthwhile. In addition to this, access to Land Board records was requested. The documentary research entailed the review of documents which highlight results and findings from similar studies. The review of literature and any other relevant documentation comprised the first stage of the study. Academic works, Journals, reports, newspaper articles and dissertations were obtained from the University of Botswana Library as well as online material (the internet).

The focus of the study was limited to exploring the perceptions held by households, tribal leadership, land authorities and other key informants regarding ownership, control and management of customary land in Mogoditshane, particularly residential land and ploughing fields (masimo). However the data collection phase was problematic because of the sensitivity of land issues in Mogoditshane. Households in Mogoditshane seem to be protective of the parcels of land they hold. Some of the households were not at liberty to discuss the terms on which they held the plots they occupied. Reasons for these actions include but are not limited to, (a) Distrust that the researchers were employees of the Sub Land Board and were sent to spy on rights holders in order to reveal those who occupy land informally and illegally (b) Fear that the researchers might be con artists known for swindling people off their land in Mogoditshane. Key informants interviewed also feared the possibility that the researchers might be undercover news reporters or agents despite having revealed identification documents proving the legitimacy of the study. A number of the households in Mogoditshane did not want to take part in the study, and those who were willing to take part including key informants were not comfortable to have the interview recorded. Their fear being that their captured voices might be used against them.

4. PERCEPTIONS OF RIGHTS HOLDERS

4.1 Claims to Land

Since the passing of the Tribal Land Act the understanding as to who owns or should own, control and manage customary/tribal land in Botswana remains a controversial and common issue. While Land Boards believe they have the mandate to control and manage rights on customary land as outlined in Section 10(1) of the Tribal Land Act; interestingly a segment of land rights holders think they have absolute control and ownership of customary land once allocated to them (Ng’ong’ola, 1992). This is demonstrated by the following situations (cases): The first case relates to the matter between Kgatleng Land Board v Chelane and Others. The plaintiff being the Kgatleng Land Board applied for summary judgement against Chelane and 13 other defendants and their eviction from tribal land it alleged they were illegally occupying. The defendants contended that they had acquired the plots located within a ploughing field as inheritance and that the authorisation of the Land Board for such occupation was not required in these circumstances in terms of section 38 of the Tribal Land Act (Botswana Law Report, 2001). However the Land Board endured to claim ownership of the land by virtue of Section 10(1) of the Tribal Land Act which vests all rights to and control of customary lands on Land Boards in that jurisdiction. Section 39 of the same Act created penalties and offences for various situations including the taking of occupation of tribal land without having an appropriate lease or certificate issued by the Land Board. Section 38 of the same Act, exempted from the requirement to obtain consent from the
Land Board the passing of rights through inheritance. Section 39 could not make punishable something which by the same Act was explicitly made legal. In these circumstances, contrary to the provision of Section 10 (1) which vests rights to control customary lands on Land Boards, the defendants had a bona fide defence (Botswana Law Report 403[HC], 2001). Section 38 of the Tribal Land Act recognises the acquisition of land through inheritance. However a person who inherits land is expected to regularise his or her devolution with the Land Board under oath and witnessed by family members or interested parties before a certificate of customary land grant can be issued.

The second case relates to Batlokwa in Tlokweng and their agitation for exclusive and preferential land allocation. Due to limitations of land in Gaborone City, some citizens opted to seek residential, commercial land and industrial land in Tlokweng and other neighbouring villages. This has caused a feud with the Batlokwa who assert that they are within their historical and cultural right to claim land in Tlokweng as belonging to them and therefore no foreigner (Non Batlokwa) should be allocated land in Tlokweng. However the legal framework instituted through the Tribal Land Act and its subsequent amendments nullifies these claims (Manatsha, [n.d]). Before the 1993 amendment Land Boards could only allocate land to people belonging to specific tribes within the areas of their jurisdiction. At that time Land Boards were restrained from granting land rights to non-tribesmen without the written consent of the Minister (Kalabamu and Morolong, 2004). Subsequent to the 1993 amendment the phrase tribesmen was replaced with the phrase ‘Peoples of Botswana’. This emphasised the inclusion of all tribes or persons belonging to other tribes in the allocation of land anywhere in the country. A similar case is that of Ramaphatle, a small settlement not far away from Gaborone City. The residents of Ramaphatle have been evicted from the land they occupied by the Land Board as illegal occupants. Initially the land was allocated to their blood relations as ploughing fields before Land Boards were established. Today the inheritors of this land have erected residential buildings and have settled permanently on the land asserting that as heirs and having nowhere to go they are the rightful owners of the land.

The third illustrative case of claims to land is the matter between Kweneng Land Board and Kabelo Matlho which was the first case to contest ownership of customary land. Kabelo Matlho argued that he had lawfully purchased the land from a tribesman who had lawfully inherited it under customary law from his forebears before Land Boards. And that the land fell out of the jurisdiction of the Land Board as it was allocated prior to the existence of Land Boards. It was argued that any piece of land granted to an individual by Chiefs before the establishment of Land Boards belongs to the particular individual or family according to customary law and they have the power to deal with it in any legal way they see fit (Kalabamu and Morolong, 2004). This claim was maintained by the Attorney General who asserted that during a time when customary laws were changing, the conception of customary land as property which cannot be held in a personal and private capacity should be scrubbed out (Botswana Law Report, 1991). During the 1993 Tribal Land Act amendment the section 10(2) was deleted because of the different interpretations to which it had learnt itself. Despite the removal of section 10(2) of the Tribal Land Act there has been a recurrence of the scenarios met in the Kabelo Matlho case (Kalabamu and Morolong, 2004). The failure by the Act to spell out the obligations, limits of rights held by individuals; the failure to address the issues of compensation and various interpretations of ownership and control of customary land are likely to be the sources of conflict between rights holders and Land Boards.

4.2 Perceptions on Ownership and Control of Customary Land before 1970

Research findings show that there are varying opinions regarding ownership and control of customary land in Mogoditshane. The narrated perceptions of households and key informants on ownership and control of customary land in Botswana are attributed to oral history handed down from generation to generation by word of mouth and eye witness accounts. There is a held view that land belonged to the Chief of the tribe. From the research findings, 30% of households interviewed asserted that before 1970 Chiefs were the absolute owners of customary land.
“The Kgosi had final control of all property in the morafe including land.”

“The Chief had a lot of power back in the days. He was like a god to his people. All the resources including land revolved around him. The chief could even go as far as dictating whom you would marry.”

To a certain point the respondents who assert that in the past chiefs were the owners of customary land could possibly be right. Siilithena (1993) argues that Chiefs had absolute control of all activities on land no matter how minor they were. The respondents connect the past supremacy of Chiefs to the overall possession of resources. That is to say with the power and influence Chiefs exercised in and sometimes beyond their chiefdoms, it is assumed that they had a complete hold over land, water, people, food, game, livestock and all other resources within their jurisdiction. According to the respondents, land was allocated to the people so that they could sustain their livelihoods. Respondents claim that the rights to such land were not secure because the Chief could take back or reallocate the same piece of land to somebody else. It is important to point out that households who hold this particular view attribute this action of Chiefs to favouritism, loathe, greed and bribery. This is a possible explanation to why some people moved from their tribes to seek refuge in other areas or with other tribes who willingly received them. That notwithstanding none of those interviewed indicated being subject to this experience brought about by the actions of Chiefs.

Machacha (1986) refutes the arguments made by respondents that during the pre-colonial era Chiefs owned land. Machacha (1986) argues that, despite Chiefs being the overall authority in all aspects of tribal life, there were some limitations to their power. Machacha (1986) argues that even though the Chief controlled tribal land, this did not result in absolute ownership or power over land because the Chief could not set aside land for allocation or repossession without the consent of his tribe. Once a tribesman was allocated a piece of land, the land could not be repossessed unreasonably and even in situations where land was acquired the land rights holder was given an alternative piece of land.

Another significant view held by respondents was that land belonged to the tribe with the Chief as custodian. When asked about their perceptions regarding ownership and control of customary land before 1970, another 30% of households interviewed stated that in the past land was owned communally by the tribe with the Chief as keeper of the land. They pointed out that the Chief held the land in trust for the community, and every male member of the tribe was entitled a piece of land when they reached a mature age. According to the respondents the maturity of the male child was determined by his successful return from male initiation school (bogwera). Females only accessed land through their male counterparts either husbands, sons or fathers. Tlou and Campbell (1997:117), state that traditionally women had fewer rights. They were always in the care of a man who was their guardian and were never allowed to represent themselves. Women could inherit property and own cattle but these were controlled by their guardians and could not dispose them off without the consent of their guardian. Tlou and Campbell (1997:117) go on further to state that it was obligatory for women to access residential land through their husbands. However married women had a right to their own fields in which they grew crops. This is contradictory to the statements of the respondents in the study who emphasized that women could not hold rights to any form of land. Perhaps because of their responsibilities as mothers and as caretakers for their families it was only reasonable and appropriate to grant married women access to land which they could use as a source of livelihood for their families as argued by Tlou and Campbell (1997).

The respondents go on further to state that land was allocated to each household for farming while another portion of land was also allocated for residential purposes to the same family but this time within the village.

“*The Chief allocated us land to build homes for our families. In addition to this you were also allocated a plot to plough and feed your family. This here is our residential plot which was*...
given to us by a Chief. We once had a ploughing field. It was located beyond Tsolamosese but not very far.”

“When I came of age around 1968, I found my parents with both a residential plot where we stayed permanently and a ploughing field not very far from Nkoyaphiri hill.”

Then again, in other cases, respondents claim that a family could only be given a large parcel of land for ploughing purposes and were allowed to erect a place of residence (mokgoro) within the same parcel of land allocated for ploughing purposes. When looking at the evidence given by the respondents it is quite clear that in some of the areas, land allocation was strictly according to distinct uses while in other areas mixed uses were allowed on the same piece of land. This was affirmed by the Kgosi from the Mogoditshane Tribal Administration.

“In the past, before the existence of Land Boards, due to a shortage of land within the wards, some families were given larger portions of ploughing fields. Given that they had nowhere to settle within the village wards, these families were allowed to settle permanently on the ploughing field.”

It is thus certain that a family could be given a ploughing field and be authorized to erect a permanent home within the same plot. This may be the reason why some land rights holders such as the residents of Ramaphatle have erected houses and permanently settled on the same parcels of land they call masimo (ploughing fields). It is thus intriguing why the Kweneng Land Board decided to demolish houses owned by some of the Ramaphatle residents. The fact that Ramaphatle village is in the Bakwena jurisdiction there is a possibility that the forbearers of the present Ramaphatle residents were given permission to erect mokgoro or permanent homes on their fields by the Chiefs of that time.

The other main view held by the remaining 40% of interviewed households was that land belonged to the given. They stated that once given a portion of land by the Chief it belonged to that particular family and stayed in the family forever. It appears that this perception was influenced by the perpetual nature of use rights which were granted to households as part of the proceedings of traditional tenure laws. The fact that households were able to hold rights to portions of land allocated to them for life as long as they actively used the land seems to encourage the perceptions of some of the respondents to claim that prior 1970 land entirely belonged to those who held it. According to Schapera (1994:196) before the being of modern society, the first peoples of Botswana were only given use rights to land. This statement disputes claims to exclusive ownership and control of customary land made by some of the respondents. However it is also meaningful to note that the same Schapera (1994:199) goes on further to state that a “…homestead once built remained the exclusive property of the family occupying it and could be handed down from one generation to another. No outsider could lay claim to the land or site as long as it was being used. Even if the owners abandoned the land, maybe as a result of relocation to another village or ward, it remained unoccupied and undisturbed. Without their permission no one could occupy it and the family could return at any time when they wished to reoccupy the land…”

Traditional land tenure law expresses that land remained in the family as long as they actively used it. On the other hand, families could abandon land for long periods of time, however the same traditional land tenure laws were not implemented to either repossess or reallocate the piece of land which was not actively being used. A thorough examination of these statements demonstrates that it is these disregarded age old contradictions between laws and practice that give households the confidence to claim that prior to 1970 ownership and control of land was absolute. One of the key informants was quoted as saying “Law and practice in Botswana’s villages has over a long period of time been conflicting. The same people, who set or agree to the implementation of the law, are the same people who disregard them.” It is thus common in big villages to see abandoned homesteads (matlotla) whose owners have either died or gone away, which have ever since remained unoccupied because of the understanding that they belong to somebody.
4.3 Perceptions on Ownership and Control of Customary Land at Present

The study identified three varying views and perceptions with regard to ownership and control of customary land at, namely that land belongs to us; we only have use rights to land and that land belongs to the Land Board. When asked for their views about who owns allocated and acquired customary land whether developed or undeveloped today in Mogoditshane, the respondents had various opinions. About 60% of the households interviewed claimed land belongs to us, that they have absolute ownership and control of land they hold. These respondents claim unconditional, unlimited and unquestionable possession of land allocated or acquired by them.

“We own this plot. The plot is ours because we bought it. I don’t understand why the Land Board wants to get involved in matters regarding this plot. They have no rights. This plot is beyond their control because they are not the ones who gave it to us.”

“Yes, I consider myself to own this plot entirely, myself and my family. I bought it from somebody who didn’t want it; it now belongs to me and my family. Nobody can lay claim to this plot, even the Land Board. I have evidence that I bought it. All I am waiting for is the Land Board to give me a certificate because that is what they are paid for. But instead they want to claim land all over Botswana for themselves, their children and their partners in corruption, which is wrong.”

However, 25% of households interviewed reckon we only have use rights on the land and argue that absolute ownership of land is collectively held by Batswana with the Land Board as keeper of the land for the people.

“I don’t consider myself to hold this plot in my private capacity. I consider myself to be under the control of Land Boards. I believe the Land Board has power over my plot. Whatever they intend to do regarding my plot I will abide, as long as they don’t leave my family homeless.”

This group of respondents had some form of higher education and some form of stable employment. It seems that maybe having some form of higher education helps people become aware or informed of changes that take place around them such as reforms of law. As a result such informed people are at an advantage of knowing what is appropriate and acceptable. The remaining 15% of households stated that according to their own understanding, customary land belongs to the Land Boards.

“I don’t consider myself to hold any of these plots (the demolished one and the one I am currently occupying) in my private capacity. How can I hold it in my private capacity? The Land Board has demolished my house before, even though I was pardoned by Moesmane (Englishman) Kgabo and asked to pay P5000. I ended up relocating to this plot. If the Land Board comes now to dispute my ownership of this plot I have no intention whatsoever of challenging them. With the way they treat us it seems the land belongs to the Land Boards. It’s theirs they can do as they please. It is painful not to have rights to defend yourself. And as unfortunate as I am, I don’t have the power to contest the decisions of the Land Board.”

This group of respondents which considers land to be owned by the Land Board comprised mainly of female headed households. In addition to this, these women were either unemployed, did not have any form of stable employment, were uneducated or were widows. The reasoning behind their views it seems was rooted on claims that the Land Board constantly harassed them regarding the legitimacy of their plot ownership. The fact that these women did not have resources they felt powerless to contest claims by the Land Board.
5. CONCLUSION

There are a number of conclusions which can be drawn from the study about perceptions of land rights holders and the ensuing customary land conflicts. Firstly it appears that allocation of land by Chiefs has influenced the notion of absolute ownership of customary land. The belief that land allocated to people by Chiefs before the establishment of Land Boards is one of the reasons some households claim absolute ownership and control of customary land. This is the line of argument which was posed by Kabelo Matlho and Another when they disputed the decision of the Land Board to evict them from land, which he Kabelo Matlho had transferred to another Pheto Motlhabane without the consent of the Kweneng Land Board. The court ruled in favour of Kabelo Matlho. However the court reviewed its decision to grant rights holders allocated land by Chiefs the power to hold land in their personal and private capacity. The reviewed decision of the court led to the amendment of the Tribal Land Act. Section 10 (2) of the Tribal Land Act was deleted because of the different interpretations to which it had learnt itself (Kalabamu and Morolong, 2004). Rights holders defending their claims to absolute ownership and control of customary land with the argument that they were allocated land by Chiefs and therefore hold it in their private and personal capacity are henceforth erroneous. This argument has been pronounced invalid by the legal system of Botswana therefore unacceptable.

The second conclusion which can be drawn about customary land conflicts and perceptions of rights holders is the perpetual nature of rights acting as an influence to absolute ownership of customary land. The perceptions of households claiming to have absolute ownership and control of customary land can be attributed to past practices of land use management and administration. The fact that land was held in perpetuity by the family as long as it actively used it has led to claims to absolute ownership and control of customary land. The exclusiveness of rights to land granted through traditional laws of land tenure during the pre-colonial era may have over the years shaped the perceptions of some rights holders. The perpetual nature of these rights possibly led to rights holders believing that land allocated to them could be held in a private and personal capacity from generation to generation. From the research findings it is also worth noting that, despite claiming absolute ownership and control of customary land, some customary rights holders have requested plot registration and certification from the Land Board. This action is contrary to their claims of having absolute ownership and control of land once allocated to them. By requesting certification from the Land Board or by requesting registration of the plot under Land Board records, rights holders automatically drag the Land Board into matters regarding the plots they hold. This does not correspond with the views rights holders made beforehand, stating that the Land Board has no business whatsoever regarding their plots as they hold them in their personal and private capacity. An examination of the statements made by rights holders shows that rights holders may be uninformed about the purpose or mandate of Land Boards. Otherwise there is likelihood that rights holders deliberately claim unawareness of the role of Land Boards and unawareness of present customary land tenure laws as a way of manipulating the customary land tenure system.

This brings us to another conclusion, that there is deliberate non-compliance and manipulation of customary land tenure laws. According to Ng’ong’ola (1993), the 1991 Presidential Commission reported that the majority of those involved in unauthorised dealings were not unaware of the need to go through the Land Boards. From the findings of the study, this argument seems valid. The Land Board and Tribal Administration maintain that as part of their duty, they have over the years taken it upon themselves to educate and inform the general public about the procedures of customary land use management and administration. Both institutions state that the sessions to educate and inform the public on issues regarding customary land use management and administration have been carried out many times at Kgotala meetings and congregations organised by the Mogoditshane Sub Land Board. This suggests that the rights holders who claim absolute ownership and control of customary land may indeed be aware of the need to consult with the Land Board but prefer not to as they regard it unnecessary and uncalled for, for self-gain.
Another conclusion that can be drawn with regard to customary land conflicts is failure to differentiate tenure systems as an influence to claims of absolute ownership of land. The existence of other tenure systems in Botswana such as freehold and state land could be another influence to the perception of households who claim to have absolute ownership of customary land. It seems that rights holders claiming absolute ownership and control of customary land fail to distinguish between the three tenure systems of Botswana. These rights holders see land in Gaborone, land in Phakalane, land in Mmokolodi and land in Mogoditshane as the same. There is a failure on the part of households to recognise that the tenure systems or the ways in which land can be or is held in Mogoditshane is not equivalent to the way land is held in Gaborone, Phakalane or Mmokolodi. To them land is one common resource, there is nothing special about land in Phakalane which may lead to households there holding land in a way which households in Mogoditshane cannot hold the land. Other factors probably influencing claims to absolute ownership of customary land could be such factors as age, highest level of education attained and gender. In general, households who claimed absolute ownership of customary land were mostly the older generation who have held land before the establishment of Land Boards and therefore have been subject to traditional laws of tenure. Those with very little education also claimed absolute ownership and control of customary land, probably because they are not aware of new legislations regarding customary land tenure. From a critical outlook, the lack of stable employment also contributes to the perceptions of households that customary land can be owned entirely by an individual or family. There are households who use the land they hold as a source of livelihood and the fear of their source of livelihood being taken may lead to households claiming complete ownership of land with the hope of protecting that source of livelihood.

6. REFERENCES


Generating New Knowledge with and in a Community Setting

Nicholas Pinfold

Lecturer
Department of Town and Regional Planning
Faculty of Informatics and Design, Cape Peninsula University of Technology
P.O. Box 652, Cape Town, 8000, South Africa
Tel: +27 (0) 21 440 2255/ Fax: +27 (0) 21 440 2259
Email: pifoldn@cput.ac.za

Abstract

In the last decade there has been a surge of urban development throughout the world. Urban areas continue to be planned through the formal approach; however informal settlements in South African cities are growing. These settlements play an important political role in determining the type of urban space cities become. Local governments are pressurised into providing more resources in order to prevent urban insecurity, violence and environmental deterioration. Human beings have needs that are complex and interconnected. Urban prosperity lies in the linking of all city-dwellers in their interdependence. During 2013 the Department of Town and Regional Planning (TRP) at the Cape Peninsula University of Technology (CPUT) took part in the Flamingo Crescent Informal Settlement Community Engagement Project. The first phase of this project was to assist the community with mapping and enumeration plans and schedules. The second phase was to prepare a conceptual layout of the community to facilitate re-blocking of structures. A strategic way of implementing academic-based community engagement is through the pedagogy of service-learning. Service-learning exposes students and academics to key development challenges facing the study area while the community gains knowledge and confidence to negotiate for better conditions. Through the act of community-led enumeration and mapping students and academics are introduced to community members, other professionals and service providers. This collaboration improves strategies, practice and knowledge in informal settlements and creates a foundation for an overall development framework that can respond to the broad development challenges facing the particular community. In response to the 1991 Education White Paper on the transformation of higher education the concept of community engagement as one of the main tasks of a university, along with teaching and learning and research has been widely embraced. The understanding of how universities should go about engaging with communities is being widely debated by academics. It is strongly believed that the Flamingo Crescent Informal Settlement Community Engagement Project has contributed to knowledge regarding academic-based community engagement and builds on the progress being made by CPUT in becoming an ‘engaged’ institution. The Flamingo Crescent Informal Settlement Community Engagement Project has been recognised as an official World Design Capital Cape Town 2014 project - WDC#236.

Keywords: Informal settlements, community engagement, service-learning, re-blocking

1. INTRODUCTION

It is believed that a community’s aspirations are entrenched within the context in which they live. The intrinsic worth of a community needs to be understood in order to build on existing capacity. Gaining wisdom by listening to stories is a meaningful approach to community engagement. The Flamingo Crescent Informal Settlement Community Engagement Project provided a means to hear the community voice, look at how the community functions and prepare the community and TRP at CPUT for meaningful engagement. This research shows that the majority of Flamingo Crescent residents were in favour of having students in their community and that reciprocal learning in this endeavour was indeed achieved. Students gained a better understanding of course content in the context of the community and
in turn residents of Flamingo Crescent gained knowledge and confidence to negotiate for better conditions. The purpose of the Flaming Crescent service-learning project was for the freshman planner to observe informal urban growth that defies the normative developmental sequence. The normative sequence to development is, planning, servicing, building and finally occupying, however the reverse occurs during informal development becoming occupy, build, service and then plan. This is a situation in which the much needed ‘public participation’ does not happen. The upgrading of informal settlements then becomes an ongoing process that requires continual engagement and dialogue with the community and public at large.

This paper reports on the nature, source and limits of knowledge gained by planning students and community members during this service-learning project. Partnerships in community engagement are built around common interests and reciprocal cooperation between parties. Equity within partnerships requires that each partner respect the other and is fully cognizant of varied expectations. It is important to recognise that each partner is likely to be at a different phase of development due to the availability of resources. Equity amounts to fairness, democracy, accountability and diversity which, as a rule, should be the grounds of a partnership agreement (CHE, 2006:103). Reciprocity is regarded as a key characteristic of the partnership relation. This presupposes that benefits are equally distributed amongst all stakeholders. Universities who seek community partners should not view communities as a liaison of convenience, laboratories for experimentation, or passive recipients of expertise (Jones, 2003:152).

2. LITERATURE REVIEW

The Green Paper on Higher Education Transformation (DoE, 1996) in South Africa emphasises that the system of higher education must be expanded and transformed so that anyone who has the capacity to succeed is not excluded. The tabling of the Higher Education Act, 1997 resulted in the establishment of the HEQC, being a permanent subcommittee of the South African Council on Higher Education (CHE). As a result academic-based community engagement has gained ground in the last decade. The early beginning of service-learning in HEIs was facilitated by the Community Higher Education Service Partnership (CHESP) initiative, which introduced theoretical frameworks and practical models for service-learning from the United States of America (Lazarus, 2007). Since then other versions of service-learning has emerged globally that connect to the context and cultures of particular countries, as is the case of South Africa (Le Grange, 2007). In South Africa CHESP has done extensive work to promote community engagement by supporting institutions in building their institutional capacity and integrating community engagement into their curricular program structures (Lazarus, 2007). Hollander et al (2002) identified certain criteria that should be fulfilled in order for a HEI to be recognised as an ‘engaged’ institution. These criteria include faculty/department support for pedagogy and epistemology of community engagement and service-learning, as well as campus structures that assist academics in establishing community partnerships. It is also imperative that academics choosing scholarship of engagement through service-learning be acknowledged and rewarded. Hollander et al (2002) points out that it would be advantageous for all faculties and disciplines in mainstream academics of the university to be involved in community-based education.

In response CPUT has included community engagement as one of the strategic directions of the university (Lazarus et al 2008:66). A way of implementing academic-based community engagement is through the pedagogy of service-learning. It is said that service-learning contextualises and provides new insights into knowledge production, and teaching-and-learning. Service-learning provides a pedagogical intervention that provides students with an opportunity to educate themselves in society’s problems and gain knowledge of community issues first-hand. (Bringle, 2010:228 in CHE 2006). According to Bringle et al (2004:6) in CHE (2006:25), service-learning exposes students to tacit knowledge that allows them to develop new ways of thinking and acting that are integrated with their personal values. CPUT has established a centre (Centre for Community Engagement and Work Integrated Learning) to provide knowledge and infrastructure support for engaging in community service projects.
The concept of community engagement and service-learning at universities brings into question the definition of the terms ‘community’ and ‘engagement’. The debate is centred on the question of what exactly these terms mean. Quality assurance requires that an agreed meaning of ‘community’ be arrived at, however Slamat (2010:107) believes that a generalised definition of ‘community’ that will hold for all institutions, for the sake of quality assurance, is not desirable. Who exactly the community should be in the context of a university is not clear (Lang, 2008 in Hall 2010:5). According to Hustedde and Ganowitz (2002) and Bhattacharyya (2004) in Smith-Tolken (2010), a community is only identified once the engagement activity has been proposed and unpacked. Furthermore different faculties within a university engage practically with communities in dissimilar ways (Naidoo, 2008 cited in Hall 2010:23). Favish (2010:93) acknowledges the difficulty of identifying a single community for a university as a whole, given that its constituency can extend from local to provincial and national levels. Another issue is whether community comprises of all stakeholders in a university, such as industry, the labour market, provincial and local government and Non Profit Organisations (NPOs) (Lange in CHE, 2008). In terms of scale, Lang (2008) questions how far from a university the community can be. Rural areas have unique social problems that local universities are best suited to address. It would be unjust for universities from far afield to tackle these problems (Nongxa, 2010:57).

3. OBJECTIVES/RESEARCH QUESTIONS

The research reported in this paper is an analysis of the community perspective on the collaboration with CPUT students during the Flamingo Crescent re-blocking exercise and whether it was worthwhile. The community was asked about the re-blocking concept and what outcome they expected.

- Did the residents welcome the university’s initiative to engage with their community?
- During the engagement did the residents contribute to the project and help the students with the mapping process?
- Did the community learn something from the students?
- Did the community teach CPUT students anything during the process?
- Could residents understand the plans produced after the mapping exercise and recognise where their dwellings were?

4. APPROACH AND METHODOLOGY

The research design and methodology was an empirical, mixed-method case study. The process thus required investigating the knowledge construction process to determine the extent to which the collaboration with CPUT students helped the community in the mapping and enumeration exercise. The purpose was to listen to the voices of community members in order to find compelling ways of convincing community members that the space they occupy is space that they have ownership of within the context of the community. This would encourage community members to demolish their dwellings with the knowledge that the space they occupy would be returned to them once a more organised layout had been agreed on. During the service-learning exercise a substantial amount of time was spent building trust and explaining the mapping and enumeration process to residents. Time was also spent in the community office where improved layouts were discussed and decided on (Figure 3). The aim of this study was to interview every household who had participated in the service-learning activities, but for various practical reasons the sample obtained consisted only of 41 out of 92 occupants of individual dwellings. This secured a sample of 45% of all dwellings on site. The sampling method can therefore be typified as non-probability and convenience sampling (Leedy & Ormrod, 2005:206). A short questionnaire was compiled for the study.

5. RESEARCH ANALYSIS AND FINDINGS / RESULTS

As a point of entry, TRP agreed to let five students volunteer for a baseline survey in the Monwabisi Park Informal Settlement in 2011. The Department had no formal agreement with the community or service provider and student participation was strictly voluntary, giving the Department no control over
proceedings. As a result the students became despondent and withdrew from the project. This experience was nevertheless beneficial for the students, who experienced civic mindedness and ways of contributing to society, particularly through volunteering (Bringle, 2010:430). Since then there has been more effort made in building sustainable partnerships with NPOs, development practitioners and communities. In 2012 Slum Dwellers International (SDI), Informal Settlement Network (ISN) and Community Organisation Resource Centre (CORC) approached the Department seeking student involvement in some of their community engagement projects. SDI is an NPO that links urban communities from the global south through mobilising, supporting and transferring development opportunities from one location, to other cities, regions and countries. ISN is a network of representatives of residents of informal settlements and backyards at metropolitan level in South Africa that is committed to partnering with government in the incremental improvement of informal settlements and backyard precincts and the improvement of livelihood opportunities for their residents. CORC is a NPO that deals with social development in South Africa. It was suggested by SDI, ISN and CORC that the Department participate in the preliminary mapping and enumeration of a selected informal settlement for an in situ upgrade project.

The Department agreed to participate in the re-blocking of Flamingo Crescent Informal Settlement where a community-based in situ upgrading approach was envisaged. The curricular pedagogy of service-learning was identified as the means for students and academics to engage with the community. Service-learning provides a pedagogical intervention that provides students with an opportunity to educate themselves in society’s problems and provide experiences so that they can understand community issues at first-hand (Bringle, 2010:228). It is important that community engagement integrate with the curricula of formal academic programmes. According to Bender (2007:128) this is sometimes referred to as community-engaged teaching and learning, with the emphasis on community service-learning. Semester modules that would provide service to communities and enhance student learning, were identified within the National Diploma of Town and Regional Planning. Curricula community engagement, by nature, cuts across the three pillars of higher education, being teaching-and-learning, research and service. Community engagement is thus not a separate add-on activity, or charitable work, but a particular approach to university-community collaboration (Bender, 2007:128).

The community mobilisation and organisation phase of the Flamingo Crescent project was initiated by ISN. This was followed by community-led mapping and enumeration. This allowed residents to start labelling their space/shack and locate it on a community layout plan. In 2013 a Memorandum of Understanding (MoU) was drawn up with ISN, CORC and TRP as signatories. The purpose of the partnership was to assist communities within informal settlements to achieve a community owned and driven development process. The partnership aim was to ensure a holistic and collaborative approach that will at all times, encourage community participation wherever possible and keep as its central focus that residents shall be responsible for their own development agenda. The nature of the partnership was on the basis that participants are equal partners who bring different and yet complementary strengths to the tasks - equally sharing risks and benefits associated with the project. The parties also committed themselves to the common goal of jointly delivering to the highest level of quality and establishing a working relationship that is underpinned by principles of transparency and trust (MoU, 2013). The partnership agreement between TRP, SDI and CORC was not intended to directly address the community needs. CPUT does not have the resources to do this and it is unrealistic to think that the Department can schedule or programs its timetable to attend to these needs. The emphasis was rather on supporting the assets and strengths of the community. In the case of Flamingo Crescent the core partnership was between the community and the service provider, being the City of Cape Town, with CPUT and other academic institutions operating in the background. This approach falls within operational plans of the universities and allows students and academics to participate in community engagement with little financial investment.

The community of Flamingo Crescent is located in Lansdowne Industrial, Cape Town. The Flamingo Crescent residents are homeless people that live in a neglected and abandoned environment. It is a place that strives for morality and human rights. The character of the settlement is dirty, disorganised and appears to be unsafe. The informal housing is typical in nature and sprawls onto the sidewalk within the road reserve of the adjoining busy industrial street on the outskirts of Lansdowne Industrial.
residents include men, woman and young children, all involved with their respective daily activities. The children play on the sidewalk unattended. Houses are made of wood, plastic and corrugated iron and can only be reached on foot; there is no vehicle or motorcycle access. In these compounds the houses have multiple rooms to accommodate extended-family members allocated to specific rooms. The site is flat with no drainage. Access is via uneven, irregular pathways which also serve as shallow drainage channels for household waste water. In the harsh Western Cape winters houses often become waterlogged and damp. At first there is little evidence that this is a functional environment but it soon becomes obvious that the community has assets that can be developed (Pinfold, 2014).

The inaugural site visit to Flamingo Crescent took place in March 2013. This meeting was used for partnership building and strategizing. The community presented their mapping and enumeration plans and schedules while TRP suggested ways of improving the plans using technology. It was decided that a small pod of five students and the lecturer would go into the community at one time. This was a discrete measure to avoid creating the perception that the community space was being invaded. A problem-based method of engagement was used where students allowed the community to inform the process, thus participating in knowledge production and in response students advised on how the process could be improved, becoming co-producers of reliable knowledge. This grass-roots engagement created interesting results. After a fortnight of measuring/mapping the community embraced the collaboration with students and relaxed, generating trust which allowed for more interaction. It became evident that the first phase of the Flamingo Crescent Informal Settlement Community Engagement Project was not just about mapping and enumeration, but about evolving a strategy that builds social and human capital that empowers communities to have the capacity to negotiate with partners (Bender, 2006:97). An important aspect of social capital is the building of social bonds, networks and trust. Bridger and Luloff (2001) and Dale and Newman (2010) argue that developing social capital in a community is one of the priority factors that needs to be enhanced in the development of sustainable communities in the future.

The second phase of the Flamingo Crescent community engagement project was to prepare a conceptual layout of the community. Fieldwork commenced with the community participating in a layout design of the site to facilitate re-blocking of structures. Students were divided into groups and allocated areas on the site. Each group was accompanied by the community residents from the allocated area. Using a field plan and cardboard cut-outs of each shack footprint the residents advised students as to where they would like their structure moved to (Figure 1). The students in turn, advised residents on the best solution within the context of their learning. This process resulted in a collaborative layout that would facilitate improved service delivery negotiated by the community residents themselves (Pinfold and Moodley, 2013). The re-blocking exercise ultimately involves residents breaking down their own shacks and re-building them according to an agreed layout. This bottom-up approach to development depends on residents themselves agreeing to the upgrade process. Residents were asked if they supported their community leaders and if they felt that re-blocking is desirable. Residents were asked if they thought the government was helping them, whether they were positive about their future and if they would be happier in the coming years. A semi-structured interview schedule was set up in order to evaluate the attitude of residents towards the project. In order to evaluate the opinion of the residents regarding the outcomes, interviews were completed after the re-blocking layout was finalised (Figure 2). The researcher collected and analysed the quantitative and qualitative responses. Additional data was collected through participatory observation during the mapping exercise (Figure 3). The comparative analytical method described by Maykut and Morehouse (2005:127) was used and applied to the small social unit of Flamingo Crescent (Pinfold, 2014).
Figure 1: Residents advised students where they would like their structure moved to and the students in turn, advised residents on the best solution within the context of their learning.

Figure 2: CPUT students interview local residents of Flamingo Crescent Informal Settlement.
The survey results are tabulated as follows:

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did the residents welcome the university’s initiative to engage with their community?</td>
<td>The majority of residents (80%) welcomed the university’s initiative to engage with their community. The remaining 20% indicated that they did not think students were necessary or useful and preferred them not to be there. The negative effects experienced were due to poor communication between the residents and the students. The bulk of residents (78%) said they understood what the CPUT students were doing and why they were in their community while 7% were not sure and 15% did not know why.</td>
</tr>
<tr>
<td>During the engagement did the residents contribute to the project and help the students with the mapping process?</td>
<td>During the engagement 68% of the residents said they happily contributed to the project and helped the students with the mapping process. Others did not, as they were either not at home or busy with household chores such as washing clothes, preparing food and looking after children. The community enumeration and mapping team enthusiastically contributed initially, but this enthusiasm diminished as the project progressed. The main reason for the loss of interest was the absence of monetary remuneration for work done.</td>
</tr>
<tr>
<td>Had the community learnt something from the students?</td>
<td>The community was not entirely convinced that they had learnt something from the students, 29% were sceptical and said they had not learnt anything, 12% were undecided, but 59% felt they had gained some knowledge from the students.</td>
</tr>
</tbody>
</table>
Did the community teach the students anything during the process?

- Sixty three percent of participants felt that the students had also learned something from them.
- The majority of students agreed that they had gained some knowledge from the community that would enlighten their learning.

Could residents understand the plans produced after the mapping exercise and recognise where their dwellings were located?

The concern was that residents could not understand the plans; however the survey revealed that 68% of the residents could understand the plans.

Residents were asked if they supported their community leaders and if they felt re-blocking was desirable.

Residents indicated that they supported their community leaders (88%) and felt they were doing a good job, 2% were unsure and 10% did not. The vast majority of the residents (95%) indicated they wanted a new shack and 88% supported the re-blocking process, however 44% did not want to relocate their shack to accommodate the new layout. Furthermore, 73% felt that they should be given a house rather than a new shack and that government should provide this.

Residents were asked if they thought the government was helping them and if they were positive about their future and would they be happier in the coming years.

When asked if they thought government was helping them 76% believe government is helping them, 12% were sceptical, 5% did not think so and 7% did not know. One hundred percent of respondents were positive about their future and felt they would be happier in the coming years.

Table 1: Flamingo Crescent Informal Settlement survey results

1. RESEARCH CONTRIBUTION

The understanding of how universities should go about engaging with communities is being widely debated and researched by academics. It is strongly believed that the experience gained during the Flamingo Crescent Informal Settlement Community Engagement Project has contributed to the understanding of community engagement and builds on the progress being made by CPUT in becoming an ‘engaged’ institution.

Through the act of community-led mapping and enumeration of community assets participants are introduced to community members, site conditions, and various other professional disciplines, partners and service providers. This collaboration involving a common task forms the basis for building relationships among all involved in improving strategies, practice and knowledge in community development. A common mapping exercise by different disciplines will form the foundation of an overall development framework document that can respond to the broad development challenges facing a particular community. Through the pedagogy of service-learning students are exposed to key development challenges facing the study area, and can suggest an approach to respond to these challengers. This exercise provides a basis for developing a methodology for entrenching service-learning in the Department on which to build a model for ‘vertical planning studios’. This model forms the conceptual basis for implementing the Higher Education Qualifications Sub-Framework (HEQSF) compliant diploma curriculum. The HEQSF compliant curriculum, together with Work Integrated Learning (WIL) defines the main character, teaching-and-learning strategy and pedagogy.
7. CONCLUSION

The Flamingo Crescent Informal Settlement Community Engagement Project has provided an innovative way for teaching students within a community setting. Participation in a dynamic community environment has initiated action that has resulted in the community being able to exchange ideas and knowledge amongst themselves and to negotiate with partners, in particular the service provider. Through the acquisition of tacit knowledge, the status quo of conditions within the community has been revealed; this allows a better understanding of how the community works. This has benefited student and the community in their quest to generate new knowledge with, and in a community setting. The mapping and enumeration exercise at Flamingo Crescent Informal Settlement has shown that building trust, awareness and motivation amongst community residents creates an environment that builds partnerships, enabling a favourable milieu for negotiation and cooperation. The lessons learnt during the Flamingo Crescent Informal Settlement Community Engagement Project will be transferred to the forthcoming Goedverwacht Mission Station community engagement project initiated by the Department. It is necessary for the Department, as an advocate of the service-learning movement, to document and publish service-learning best practice in order to support this academic form of community engagement.

8. RESEARCH LIMITATIONS

In the context of a developing country such as South Africa, much more time and extensive longitudinal research is needed to determine how social capital building and social constructivism is stimulated through community engagement. This study reflects only on the community response during this particular collaboration; experience gained was restricted to course constraints, confining the study to a limited time frame.

9. FURTHER RESEARCH

TRP seeks to continue its activities in community engagement by involving academics in similar engagements. The question is how to create an enabling environment to attract partnerships that are sustainable. Various universities, locally and internationally, use different partnership models to engage with communities. These models need to be investigated, critiqued and benchmarked to embrace a future partnership model for TRP.

The Goedverwacht Mission Station community is a new community engagement project that was initiated by TRP in 2014. It builds on the experience and reflection gained during the Flamingo Crescent Informal Settlement Community Engagement Project. This community engagement/service-learning venture is intended to be a participatory peer-learning experience, involving academics and students from various faculties at CPUT. This initiative supports the criteria for an engaged institution as identified by Holender et al (2002) who stated that community-based education should spread across all faculties and disciplines. This project begins with a community-led enumeration-and-mapping event that will form the foundation of an overall development framework document that responds to the broad challenges facing the Goedverwacht community. The intention is to induct students and academics to the site and build partnerships and social capital amongst students, academics and community. Thereafter different departments will apply their own service-learning modules under the administration/management of the Service-learning Centre and project leaders.

The overall goal of the community engagement project will be an informed development framework for the community that responds to challenges that link to the Bergriver Municipal Integrated Development Plan (IDP), Spatial Development Plan (SDF), Local Economic Development (LED), Environmental Management Framework (EMF) and other relevant sector plans (TRP, 2014). This development framework document will be compiled jointly by academics and students from different departments and faculties within CPUT.
10. REFERENCES

Bender, C. 2007. Pathways of change for integrating Community Service-Learning into the core curriculum. *Education as Change, Volume 11 Number 3, Dec 2007, Special Issue: CSL*


Favish, J. 2010. Towards developing a common discourse and a policy framework for social responsiveness. In *Community Engagement - Kagisano_No_6_January 2010*


MoU. 2013. Memorandum of Understanding between the Informal Settlement Network, Community Organization Resource Centre (CORC), CPUT Department of Town and Regional Planning


Pinfold, N. & Moodley, R. 2013. The Importance of Service-Learning and Community Engagement within the GIS Pedagogy of the Town and Regional Planning Department (CPUT). *Africa Geo-spatial forum 2013*.


TRP. 2014. Service-Learning Project Submission – Department of Town and Regional Planning, Faculty of Informatics and Design.
Collaborating and Partnering for the “Invisible” in Great Places: Experiences and Lessons Learnt for Regional Infrastructure Planning

Alka Ramnath¹, Aalia Kajee²

¹ Planner
Planning Services Department, Umgeni Water
P.O. Box 9, Pietermaritzburg, 3201, South Africa
Tel: +27 33 341 1115 / Fax: +27 33 341 1218
alka.ramnath@umgeni.co.za

² Town Planner
Network Planning, Eskom – KZN Operating Unit
P.O. Box 5, Mkondeni, Pietermaritzburg, 3212, South Africa
Tel: +27 33 395 3851 / Fax: +27 86 667 4973

Abstract
Dewar (2013) states that places are made up of the “visible” and the “invisible” with both equally contributing to the success of an area. However, in practice and unintentionally, the “invisible” is conventionally neglected and only becomes a priority with backlog alleviation. The conference organisers put forward that “the provision of basic services is the building blocks of “Great Places”. Getting the basics right before engaging in more complex interventions is key, it can be argued”. The conference organisers further state that “Each place is unique and requires levels of investment that are appropriate to its conditions”. However, when service delivery becomes urgent, this is usually forgotten and pressure is placed on service providers to provide the services needed irrespective of the suitability to an area or the impact on an area. The Integrated Development Plan (IDP) process seeks to collaborate and partner in sharing capability in making “Great Places”. However, when it comes to the invisible viz. services, municipalities frequently complain that service providers do not collaborate and partner with them. This paper looks at two bulk service providers operating in KwaZulu-Natal (KZN) viz. Eskom (provision of electricity) and Umgeni Water (provision of bulk potable water) and how they have been engaging with the IDP process. This paper will look briefly at how each of the service providers undertake their planning, the legal mandates of each service provider, how they have been engaging with the IDP process in KZN, some of the successes and failures in their engagements i.e. lessons learnt and from their experiences, what their recommendations are in collaborating and partnering with municipal planners and other planning stakeholders in making “Great Places”.

Keywords: Integrated Development Plan (IDP), Regional Infrastructure Planning, Bulk Regional Service Providers, Sector Departments, Bulk Infrastructure Planning

1. INTRODUCTION
Dewar states that places are made up of the “visible” and the “invisible” with both equally contributing to the success of an area (2013). However, in practice and unintentionally, the “invisible” is conventionally neglected and only becomes a priority with backlog alleviation. The conference organisers put forward that “the provision of basic services is the building blocks of “Great Places”. Getting the basics right before engaging in more complex interventions is key, it can be argued”. The conference organisers further state that “Each place is unique and requires levels of investment that are appropriate to its conditions”. However, when service delivery becomes urgent, this is usually forgotten and pressure is placed on service providers to provide the services needed irrespective of the suitability
to an area or the impact on an area. The Integrated Development Plan (IDP) process seeks to collaborate and partner in sharing capability in making “Great Places”. However, when it comes to the invisible viz. services, municipalities frequently complain that service providers do not collaborate and partner with them.

Sections 24 and 25 of the Municipal Systems Act, Act No. 32, 2000 (MSA) emphasise the need for alignment and coordination between the planning of the different spheres of government in South Africa and the demonstration of this alignment and coordination in the IDP. However, the practical translation of Chapter 5 of the MSA into successful implementation has encountered numerous challenges in the alignment between the planning of sector departments and municipalities. Municipalities are vocal in their criticism of sector departments with a common complaint being that sector departments do not attend IDP fora even though they have been invited nor do they provide the requested information for the municipal IDPs. Sector departments respond with frustration that municipalities keep changing their plans for no valid reasons and that municipalities do not follow the IDP process properly. What then are the reasons for the challenge of alignment and the participation of sector departments in the IDP process?

Brynard states that:

“...at the moment, there is a constant demand for service delivery, increasing the pressure on all the role players. Under such conditions, one wonders if there is any time to reflect.”

(Brynard, 2009: 45).

The purpose of this paper is to reflect on the IDP process from the perspective of the sector role-players in the provision of regional bulk infrastructure i.e. infrastructure that connects the source of a service to the point at which the municipality distributes the service to consumers and which crosses municipal boundaries. This paper will look briefly at how two regional bulk service providers in KwaZulu-Natal (KZN) viz. Umgeni Water and Eskom undertake their planning, their legal mandates, how they have been engaging with the IDP process in KZN, some of the successes and failures in their engagements i.e. lessons learnt and from their experiences, what their recommendations are in collaborating and partnering with municipal planners and other planning stakeholders in making “Great Places”.

2. LITERATURE REVIEW

The IDP could be what Coetzee calls a “symphonic planning system” which is “a system that conducts and arranges all efforts, plans and strategies in such a way that it harmonises to bring about symphonic quality (or quality development performance)” (2012: 15). Brynard identifies commitment, coordination, the value of training, the institutional environment, contextual factors and interorganisational cooperation as critical factors that influence the success of policy implementation (2009: 557 – 558) and therefore these could be said to be the critical factors for the successful implementation of the IDP. However, it is commonly acknowledged that this is not occurring in reality and that two factors, namely coordination and interorganisational cooperation are particularly problematic (Coetzee, 2010; Coetzee, 2012; CoGTA, 2009; SALGA, 2014; Mashamba, 2008; Subban and Theron, 2012).

Research on IDP includes how it has been implemented in the different provinces e.g. Limpopo (Mashamba, 2008) and KwaZulu-Natal (Subban and Theron, 2012); IDP participation (Brynard and Musitha, 2011; Madzivhandila and Asha, 2012; Mubangizi, 2011); intergovernmental relations (Edwards, 2008a; Edwards, 2008b; Kanyane and Nazo, 2008; Mathebula, 2011; Mello, 2010); sector planning e.g. Integrated Water Resources Management (IWRM) and the Water Services Development Plan (WSDP) (Haigh, Fox and Davies-Coleman, 2010) and transport planning (Kamau, 2007; Naude, Mashiri and Nchabeleng, 2005) and the roles and functions in service delivery (Mashela, Mamogale and Makhado, 2012; Nkuna and Neumtanzhela, 2012). Research on infrastructure planning includes
Todes who looks at the linking of infrastructure planning to spatial planning (2011; 2012); the importance of including Operations and Maintenance (O&M) in infrastructure planning (Wall, 2007) and the need for an improvement in the planning and budgeting of the Municipal Infrastructure Grant (MIG) programmes (Modipane and Sebola, 2012). A common thread in the research is the lack of participation of sector departments in the IDP but no research could be found from the perspective of sector departments.

Reasons put forward for the lack of participation of sector departments in the IDP include:

- “A lack of awareness about the benefits of having a shared vision” (Madzivhandila and Asha, 2012: 373).
- “A shortage of skills in team work and facilitation of development initiatives” (Madzivhandila and Asha, 2012: 373).
- “A lack of commitment and the right attitude” (Madzivhandila and Asha, 2012: 373).
- “Role players are purporting to assume the responsibility of complementing the role of local government in ensuring service delivery are obscure, which results in local government taking the blame of ineffective service delivery” (Nkuna and Nemutanzhela, 2012: 355).
- “Intergovernmental relations system is intricate” and that the “organisational complexity in the South African system of government” makes “integrated development planning a challenge” (Mello and Maserumule, 2010: 93).

Edwards’ research (2008a; 2008b) supported Nkuna and Nemutanzhela’s statement that there is confusion in the roles and functions in service delivery (2012). Edwards in looking at intergovernmental relations identified “a lack of clarity in the division of powers and functions” as “one major cause of conflict” (2008a: 96). She further identified that “intergovernmental relations forums are too large” and that “the current practice of intergovernmental relations does not always reflect equal involvement” (2008a: 97). Edwards explains that “intergovernmental relations are intended to promote and facilitate cooperative governance and decision making by ensuring that policies and activities across all spheres encourage service delivery to meet the needs of citizens in an effective way” (2008b: 66) and that “ineffective intergovernmental relations and coordination are often problems of capacity and management rather than of structures and procedures” (2008b: 66). She states that “the Integrated Development Planning (IDP) process is an example of intergovernmental relations in practice” (2008b: 74). In her research she found that “most of the intergovernmental forum meetings were of an informative instead of a consultative nature” (2008b: 79). She identifies that “South Africa has a functioning system of intergovernmental relations, but it is mostly dominated by the higher sphere of government based on authority, power and prescriptions” (2008b: 82) and that “another constraint is that intergovernmental relations are far more concentrated on process than on policy content, service delivery and development” (2008b: 82). However, she concludes by stating that “the poor attendance of high-ranking officials at intergovernmental relations meetings remains a concern” (2008b: 83).

Mello and Maserumule’s research concluded that the “current intergovernmental relations system in South Africa does not contribute to the integrated developmental planning in the local sphere of government in South Africa” (2010: 93). They identified that “the development planning instruments in government are not the same” e.g. the three year Medium Term Expenditure Frameworks of national and provincial spheres of government vs. the five year IDP of local government and the different financial years of national and provincial government starting on 1 March vs. the financial years of local government beginning on 1 July and that “these misalignments fail to create the cycle of mutual influence among the development planning instruments” (2010: 291). They further identified the lack of participation of sector departments in IDP intergovernmental forums (2010: 291) and that “often junior officials are sent to attend IDP intergovernmental forums with no mandate to commit issues of strategic developmental importance that need the support of their sectoral departments” and
that “these officials could also hardly articulate the national strategic framework of government on strategic developmental priorities to guide the municipal planning process” (292: 2010).

Van der Waldt looked at the “uniqueness or distinctiveness of project management applications in the public sector, in comparison to those in private sector settings” (2011: 66). He states that “Peters (1996), Hirst (2000) and Pollitt and Bouckaert (2000) agree that there is a shift from a ‘hierarchy’ to a ‘network’ form of governance” (2011: 71) in the public sector and that “this shift places emphasis on public participation to overcome fragmentation in service delivery and the problem of accountability” (2011: 71). However, as shown above, other research indicates that there is a problem with participation for service delivery. van der Walt (2011) identified three key points which are useful in looking at what there is a perceived problem of participation of sector departments in the IDP:

- **What defines the “success” of a project:** He explains that in the public sector,

  “... the appropriateness of these projects cannot be measured in quantifiable terms, but rather political terms. Policy goals are determined within the framework of politically perceived community needs, priorities and affordability. In other words: a project may be regarded as a ‘political’ success although it runs over budget and time – thus, from a management point of view it was not successful. In assessing effectiveness from this point of view, the rational weighing of costs and benefits may not be the decisive factor, but rather a value judgement on the best policy in a particular set of circumstances.”

  (van der Waldt, 2011: 76).

- **Organisational structure:** Most of the research has indicated that the organisational structure is an important factor. van der Waldt elaborates on this by explaining the tensions in public sector organisations responsible for service delivery where a project management approach is commonly accepted but encounters challenges.

  “van der Waldt (2007: 257) argues that ‘bureaucratic inertia’ (the inability to adjust deep-rooted hierarchical structures and practices) causes a constant struggle between control on the one hand and the creativity and flexibility necessary to successfully manage projects on the other. It is, therefore, necessary to address organisational culture, functional processes, job design, staff competencies, policies and procedures to adequately support projects.”

  (van der Waldt, 2011: 78).

He continues to explain that

“the inherent tension between functional priorities and project responsibilities – especially as far as staff and resource allocations are concerned – is far more evident in the public sector. Self-directed project teams in the public sector are extremely rare, unlike the private sector where such teams are appointed to rapidly develop products.”

(van der Waldt, 2011: 78).

van der Waldt explains that “projects are intrinsically part of their host organisations. The organisational environment, structure, mission, politics, systems, culture and processes will, therefore, directly or indirectly influence the ways projects are managed” (2011: 79). He states that Fraser-Moleketi (2003) “stresses the need to also take into consideration the procedures and systems, as well as the structuring of government” (2011: 79).
• **Management Culture:** Another key factor is that of management culture. Other research emphasises the importance of senior officials to attend IDP meetings (Edwards, 2008b; Mello and Maserumule, 2010), however in the private sector, it is those who “do the actual work” who attend meetings as they are the best ones to provide useful input. Why then the emphasis on the attendance of senior officials?

van der Waldt explains that in the public sector,

> “management culture is more hierarchical and rule-bound by nature and typically limited authority is delegated to project managers (van der Waldt 2007: 258). Decision-making authority typically vests with various senior managers and committees, which limits the need for rapid decisions during projects... Starling (1993: 22) underlines the fact that government bureaucracy makes it more difficult to delegate authority and responsibilities to lower-level managers. Very often project managers in the lower management echelons have the responsibility to plan and execute a project, but not the authority to make resource allocation decisions. This responsibility/authority gap makes project management very difficult.”

(van der Waldt, 2011: 78 - 80).

This may explain why there is always an insistence that senior officials attend IDP meetings but van der Waldt identifies a further key point that is commonly forgotten: senior officials still have to make the budget submission to either parliament or the board (depending on the type of sector role-player) for approval:

> “Starling (1993: 19) underlines the fact that the fundamental difference between business administration and public administration is that government does not give complete authority for policy to any one individual or institution. Heads of departments must make budget submissions to parliament. This time-lag makes quick responses to project challenges and opportunities difficult.”

(van der Waldt, 2011: 80).

Mathebula (2011) looked at the “interactive and transactive nature” of intergovernmental relations where “interactive refers to the activities that have not yet been contracted between spheres of government and yet have an impact on how governments will react to their outcomes, whereas transactive is concerned with a codified obligation to transact according to a defined contractual process” (2011: 1415). This concept is demonstrated in Figure 1.

![Figure 1](image-url)
Synonyms for “collaboration” include “teamwork” and “partnership” and the term “collaboration” could be said to refer “to working together to achieve a common goal”. It could therefore be said that Figure 1 shows that the tools for collaboration range from formal which include legislation and contracts to the informal which include one-on-one meetings, telephone calls etc.

Mashela, Mamogale and Makhado investigated whether municipalities should account to the provincial legislature to improve service delivery but concluded that this could not occur as this would be “a direct contravention of section 151(2) and section 2(a) of the Constitution of South Africa and the Municipal Systems Act” (2012: 352). Kanyane and Nazo supported this finding, stating “rather to rely on interdependent provisions of national and provincial legislation regarding accountability for intergovernmental relations mandate and deliverables by both provincial governments and local municipalities” (2008: 143). However, their recommendation to strengthen intergovernmental relations was to “convene consultative meetings of MEC, portfolio committee and municipalities… reach a common understanding and interpretation of various pieces of legislation governing accountability for intergovernmental relations” (2008: 143).

Recommendations put forward on improving participation of sector departments in the IDPs include:

- Mashamba identified that whilst all sector departments are “expected to assign the IDP coordination function to dedicated functionaries at their headquarters as well as at district tier, not all departments have appointed functionaries to coordinate the IDP issues on behalf of their departments” (2008: 433).
- Mashamba identified that whilst “sector departments are supposed to partake in the IDP processes of all municipalities, it is not clear if they are able to effectively do that… The ideal scenario is for sector departments to participate in the IDP process at district tier, whereby the district municipalities would rally their locals to be involved at that tier, given that district IDPs have to become far more decisive on the areas of need and development potential in the district and start playing a far greater role in decisions on infrastructure investment and development spending by all three spheres of government” (2008: 433).
- “Sector departments should not only participate in the IDP process by simply submitting their plans for inclusion in the IDPs of the respective municipalities, but should be party to the development of the IDP Review Frameworks and Process Plans to ensure the alignment (timing) of the planning activities of the different spheres of government” (Mashamba, 2008: 433).
- “Sector departments should provide updated sector baseline data, for planning purposes, to municipalities. Currently, municipalities are struggling to develop credible baseline information some of which should be provided for by sector departments” (Mashamba, 2008: 433). This recommendation was supported by Subban and Theron (2012: 28) who advocated that national CoGTA “and the provincial office of CoGTA should play a leading role in acquiring baseline information for municipalities, which the latter would otherwise not be able to afford”.
- “Sector departments should ensure that municipalities are aware/knowledgeable about sector strategies at provincial and national spheres” (Mashamba, 2008: 433).
- “Sector departments should not only provide information about their plans in a specific municipality, but should engage in discussions with municipalities about the rationale, location, operations and maintenance costs of projects being initiated by sector departments in municipal space” (Mashamba, 2008: 433).
- “Sector departments should play a key role in the development of integrated and coherent sector plans, as opposed to a situation whereby only sector projects are being included in the IDPs” (Mashamba, 2008: 433). This was also noted by Subban and Theron (2012: 23).
- “Sector departments should play a role in the assessment of the IDP documents” (Mashamba, 2008: 433). Subban and Theron reports that this is occurring in KZN (2012).
“Municipalities should standardise the function of the IDP coordination to ensure that the IDP units perform the same function... The level of influence of IDP managers should be standardised and the vacant IDP positions in municipalities should be filled” (Mashamba, 2008: 434).

“Departments should sign a Projects Commitment Register with municipalities that would see to the co-implementation and joint reporting on all projects during the IDP Representative Forum meetings” (Mashamba, 2008: 435).

“Service delivery challenges can be addressed if clear strategies are formulated” (Madzivhandila and Asha, 2012: 369) and “should not be seen as a ‘one-size-fits-all intervention’...should be nurtured through targeted mechanisms and scaling down interventions” (Mubangizi, 2011: 74).

The need for “strong and appropriate leadership” was identified by Coetzee (2010: 22) and supported by Coetzee (2012: 16). Hamann and April (2013) unpacked this “appropriate leadership” by identifying the need for “collaborative leadership in partnerships” (2013: 15) because “organisations have different cultures... cannot rely on formal control over members” (2013: 15), Prangley, 2013.

Van der Waldt provides two useful recommendations on considering the engagement with public sector organisations:

- **Maintain a balance between stakeholder needs and the primary mandate**: He explains that

  “Palmer (2004: 376) states that ideally, public sector institutions should pay attention to stakeholder needs, but this should always be counterbalanced by focussing on their primary functions, namely, to provide a range of services to customer groups, in keeping with statutory mandate and political prescriptions impacting on the execution of their functions.”

  (van der Waldt, 2011: 84).

- **Map the relationship and patterns between role-players**: He recommends that “government should map the influence relationships and patterns between its partners which manifest in ever-changing interactions” (van der Waldt, 2011: 71).

3. **OBJECTIVES/RESEARCH QUESTIONS**

The objectives of this paper were:

- To identify if sector legislation specify participation in the IDP.
- To identify the institutional arrangements for the provision of water and electricity, are they being shown in the IDPs and what the results are if they are not shown in the IDPs.
- To identify if organisational structure has an impact on the participation in the IDPs.
- To identify if project information is submitted to the district municipality is reflected in the IDPs of the entire family of municipalities.
- To identify if the submitted project information is captured correctly in the IDPs.

4. **APPROACH AND METHODOLOGY**

Brynard states that “policy implementers can fail, not because they are unwilling to implement, but perhaps their ability to implement is hampered by the extent of their understanding that do not align with the policy-maker’s intentions” (2010: 194). This paper used as a starting point, that whilst there appears to be a great deal written on the implementation of the IDP from a municipal understanding, there has not been much on the implementation of the IDP from a sector understanding. Therefore, the first step was to confirm if there was any research on the implementation of the IDP from a sector perspective. The limited literature review undertaken confirmed that whilst there is some research on
the component sector plans, there appears to be none on a sector perspective on the overall IDP implementation nor a sector perspective on IDP participation.

This paper initially proposed looking at four bulk service providers operating in KZN viz. Eskom (provision of electricity), Umgeni Water (provision of bulk potable water), KZN Department of Transport (provision of provincial roads) and SA National Roads Agency (provision of national roads) and how they have been engaging with the IDP process. It was decided that the period of IDP engagement would be the municipal financial years 2009/2010 – 2014/2015, with the start period being 2009/2010 as the KZN Planning and Department Act (PDA) commenced operation in 2010. This was a significant milestone as the KZN PDA requires all infrastructure projects to obtain planning permission before construction can commence. If projects occurring outside scheme areas are listed in the IDP, the project does not need to go through the planning application and approval process. Hence, with the KZN PDA coming into operation, infrastructure service providers had an extra incentive to participate in the IDP process. However, this is a double-edged sword because if municipalities do not list the projects in their respective IDPs and the project is on a critical path, the project becomes delayed by having to proceed through the statutory planning application and approval process.

Coetzee (2010; 2012), Edwards (2008b), Mello and Maserumule (2010) and Brynard (2009) all identified the importance of capacity and having the correct skills. It was therefore decided that the observations and thoughts would be obtained from qualified planners as planners are one of the few professions that are trained specifically to undertake IDPs and it was assumed that qualified planners would make an objective assessment of the IDP processes being followed by the different municipalities. However, this criterion reduced the sample from four service providers to two as one no longer had a qualified planner employed and the other had only recently employed a planner to engage with the IDP process. The sample organisations were therefore reduced to Umgeni Water and Eskom.

A sample of 12 municipalities that both Umgeni Water and Eskom provide bulk services to were selected. Two were district municipalities and the remaining were local municipalities. The steps proposed were to consult the relevant IDPs and corresponding information in the sample organisations (the information that was stored in their respective filing systems) over the selected time period to verify what was submitted to the municipalities and what appeared in the IDPs. However, due to time constraints, the corresponding information could only be obtained for Umgeni Water and therefore the results for this part of the exercise were reduced further.

The paper started by investigating Nkuna and Nemutanzhela (2012) and Edwards (2008a; 2008b) assertion that there is “confusion in the roles and functions in service delivery” by looking at the “transactive component of intergovernmental relations” (Mathebula, 2011). This was undertaken by looking at what infrastructure components are specified in the Municipal Systems Act and if there is a corresponding reference to the IDP in the legislation of the respective infrastructure components.

The institutional arrangements for the provision of water and electricity for the selected sample organisations was then looked at and the sample was checked to determine if these institutional arrangements were reflected in the IDP as this would indicate if the correct role-players were identified in the IDP.

van der Waldt (2011) elaborated on the importance of organisational structure. This was then looked at to determine the impacts of organisational structure on IDP engagement.

Subban and Theron noted as an achievement that “senior staff in sector departments was more aware of IDP processes than other staff” (2012: 27). Edwards whilst noting that intergovernmental relations in South Africa “is mostly dominated by the higher sphere of government based on authority, power and prescriptions” (2008b: 82), states that “the poor attendance of high-ranking officials at intergovernmental relations meetings remain a concern” (2008b: 83). Mello and Maserumule also noted the attendance of “junior officials” with “no mandate” as a concern (2010: 291 – 292). However, van
der Waldt (2011) explained that “senior officials” in public sector organisations still do not always have the mandate to make resource allocation decisions. It was investigated if the use of senior staff made any difference to the IDP process using the sample organisations.

The paper then looked at whether the project information submitted for the sample IDPs was captured in the sample IDPs and if it was captured, was it captured correctly. Mashamba (2008) advocated the use of district municipalities for sector engagement and the effectiveness of this was considered.

The paper then notes several observations from the authors which were not identified in the literature review and concludes with some reflections and recommendations.

5. **RESEARCH ANALYSIS AND FINDINGS/RESULTS**

Roles and Functions in Service Delivery

Section 23.(1)(c) of the Municipal Systems Act, 2000 states that “A municipality must undertake developmentally-orientated planning so as to ensure that it together with other organs of state contribute to the progressive realisation of the fundamental rights contained in sections 24, 25, 26, 27 and 29 of the Constitution”. Sections 24, 25, 26, 27 and 29 of the South African Constitution relate to the environment, property, housing, health care, food, water and social security and education respectively. So whereas municipalities are required by their parent legislation to plan for services and to show this planning in the IDP, does the parent legislation for each of the organ of states responsible for the different services require the organ of states to participate in the IDP process i.e. is there a transactive relationship between municipalities and organs of state in the planning and provision of services? The legislation for water, energy, transport, housing, health and education was consulted to determine if there was a legal requirement for the respective organs of state to participate in the IDP process and the results of this query are shown in Table 1.

**Table 1 Does sector legislation specify participation in the IDP?**

<table>
<thead>
<tr>
<th>Sector</th>
<th>Does the sector legislation specify participation in the IDP?</th>
<th>If yes, relevant section of Act</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>See also Sections 13 – 18 of the Water Services Act 108 of 1997.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>See also Sections 32 – 36 of the National Land Transport Act, 2009 Act No. 5, 2009.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>See Section 19 of the KZN Provincial Roads Act No. 4 of 2001.</td>
</tr>
<tr>
<td>Housing</td>
<td>Yes</td>
<td>See Section 9 of the Housing Act 107 of 1997.</td>
</tr>
</tbody>
</table>
| Health | Yes | See Section 33.(1) of the National Health Act, 2003 Act No. 61, 2003.  
See also Section 32 of the National Health Act, 2003 Act No. 61, 2003. |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>No</td>
<td>However, see Section 4.(6) and 4.(7) of the South African Schools Act, 1996 (Act No. 84 of 1996) Regulations Relating to Minimum Uniform Norms and Standards for Public School Infrastructure No. R. 920 29 November 2013.</td>
</tr>
</tbody>
</table>

It is shown in Table 1 that the water, energy, transport, housing and health sectors are required by their legislation to participate in the IDP process and therefore Table 1 confirms that there is a “binding obligation” (Mathebula, 2011: 1417) between the water, energy, transport, housing and health sectors and municipalities to participate in the IDP process.

Referring to Figure 1, the “binding obligation” shown for the water and energy sectors in Table 1 is unpacked further to show the structure of these two sectors. A simplified representation of the water supply system is shown in Figure 2, where the source of raw water is a dam (surface water) and is treated at a Water Treatment Plant (WTP), distributed via the potable bulk water system of pipelines and reservoirs (and pump stations depending on the terrain; the bulk reservoir is shown in a cream colour in Figure 2) and then through the reticulation system (the reticulation reservoirs are shown in pale purple in Figure 2) to finally the consumers (shown by the taps in Figure 2). The translation of the water supply system into the water services sector structure in South Africa is shown in Figure 3.
Figure 3  Structure of the water services sector (Ramnath 2011 (after Gillham 2008): Slide 16)

It is shown in Figure 3 that the Department of Water and Sanitation (DWS) is the custodian of South Africa’s water resources (both surface and ground water) and is responsible for the national security of water supply. The responsibility for the provision of potable water and sanitation services to consumers i.e. residents is the municipality. However, the Water Services Act does not assign the responsibility for the provision of water and sanitation services to all municipalities. Instead, this is assigned to all district municipalities and certain local municipalities (this is dependent on the complexity of the water and sanitation systems within the municipalities). Those municipalities who have been assigned the function of providing water and sanitation services are called Water Service Authorities (WSAs) and the WSAs in KZN are shown in Figure 4. The Water Services Act requires the WSAs to prepare the Water Services Development Plans (WSDPs) which are the relevant water and sanitation sector plan that forms part of the IDP. It is important to note that the WSA may decide who to use as a Water Service Provider (WSP) and if the WSA is unhappy with the performance of a WSP, it may end the contract with the WSP and enter into a contract with another WSP.
A representation of the electricity supply system is shown in **Figure 5**, where the source of electricity is an electricity generation power station. The electricity is transferred via transmission power lines to a transmission substation and then via distribution power lines to a distribution substation. The electricity from the power station to the distribution substation is high voltage. The electricity is then transferred from the distribution substation via medium voltage power lines and then low voltage power lines to be reticulated to consumers. The translation of the electricity supply system into the electricity sector structure in South Africa is shown in **Figure 6** and a comparison with **Figure 3** shows that this sector, whilst having only one key role-player currently viz. Eskom, is slightly more complex. Eskom, as South Africa’s only power utility and one that is completely owned by the State, is responsible for the generation, transmission and distribution of electricity. As shown in **Figure 6**, Eskom is directly accountable to the Department of Public Enterprises who in turn, reports horizontally to the Department of Energy on Eskom’s functions. It is also shown in **Figure 6** that either Eskom or a municipality, who has been licensed to do so, can reticulate electricity to consumers. The municipalities who have been licensed to reticulate electricity in KZN are shown in **Figure 7**.
Figure 5  The electricity supply system (Eskom unknown date).

Figure 6  Structure of the electricity sector (after DPE 2014; DE 2014; World Finance 2012).
Figure 7 KZN municipalities licensed to reticulate electricity.

The above shows that the provision of water and electricity is not a relationship solely between the municipality and the relevant department and that the role-players are not uniform throughout KZN. Are municipalities reflecting the correct role-players in their respective IDPs?
A check was performed to determine if the institutional arrangements for the provision of water and electricity was stated clearly in the sample IDPs. The results of this check are displayed in Figure 8 and Figure 9.

**Figure 8** Percentage of sample that showed the institutional arrangements for the provision of water in the IDP.

**Figure 9** Percentage of sample that showed the institutional arrangements for the provision of electricity in the IDP.
Figure 9, which show that majority of the municipalities were not reflecting the institutional arrangements for the provision of water and electricity in the IDP. This suggests that the team preparing the IDPs are unclear on who are the relevant role-players in the provision of water and electricity. If it is unclear who the relevant role-players are, how can they be consulted to provide the required inputs into the IDP?

The lack of clarity on the institutional arrangements for the provision of water and electricity in the sample IDPs has a further impact on the implementation of the required services at the operational level of planning viz. statutory planning: if it is unclear who the relevant role-players are, how can meaningful comments be obtained for development applications submitted via the KZN PDA? It has been observed that sector departments receive a great deal of negative criticism for not providing comments on development applications. However, it has also been observed that those preparing development applications do not always submit the applications to the correct sector role-players for the required comments. Therefore clearly identifying the institutional arrangements for the provision of services in the IDP has a positive impact on all elements of planning. The importance of this may have been recognised as the Spatial Planning and Land Use Management Act, 2013 requires the identification of institutional arrangements under Section 21.(p)(iii).

Organisational Structures

van der Waldt (2011) explained the importance of considering the organisational structure of sector organisations (Section 2). Does the structure of Umgeni Water and Eskom influence how they engage with the IDP process?

Umgeni Water was established in 1974 as a water board responsible for the provision of bulk potable water to the Durban-Pietermaritzburg area in KwaZulu-Natal. Umgeni Water is a parastatal and reports to the Minister of Water and Sanitation. With reference to Figure 3, it is bulk water service provider. The WSAs to whom it provides water and the Umgeni Water managed infrastructure are shown in Figure 10 (the WSAs are shown in white). It is shown in Figure 10 that Umgeni Water supplies water to six WSAs and that its operational area is located in southern KZN.

Eskom was established in 1922 and was converted from a statutory body to a public company in terms of the Eskom Conversion Act, 13 of 2001 (Eskom 2014: website). Eskom is responsible for the generation, transmission (Figure 11), distribution and reticulation of electricity for the entire South Africa.

Umgeni Water therefore has a smaller geographic area than Eskom and therefore is a smaller organisation than Eskom. A simplified organogram for Umgeni Water is shown in Figure 12. The overall organisational structure for Eskom is shown in Figure 13 and a detailed organogram for the Distribution Division is shown in Figure 14. A comparison of the two organisation’s organograms shows that they do have a dedicated town and regional planner whose functions are to align the planning of their respective organisations with that of the different spheres of government, including municipalities and the engagement with the IDPs. Umgeni Water and Eskom have therefore dedicated “IDP functionaries” as per one of the recommendations of Mashamba (2008: 433). However, a key difference in the functions of the two planners and which is a result of the size of the organisation, is that whereas the planner for Umgeni Water when engaging with the IDP process, represents the entire organisation, the planner for Eskom only represents the Distribution division for the KZN region. Does a dedicated planner for only one division in a sector organisation have an impact on the IDP engagement? The authors have observed that yes, it does as the internal organisational structure adds another layer of complexity in the identification of the different role-players. It has been observed that with Eskom that although the planner has communicated that she represents the Distribution division, some municipalities still get confused and frustrated as they are more interested in the “reticulation” information.
This highlights another challenge for regional infrastructure providers: it has been observed that municipalities appear to only be interested in what is *physically occurring in their municipal space*, with no concern for projects that are being implemented on their behalf but which occur in a different area.

![Figure 10 Umgeni Water’s operational area (Ramnath 2013).](image)
Figure 11  Eskom’s operational area (Eskom 2013: website).

Figure 12  Simplified Umgeni Water organogram.
Figure 13  Eskom’s organisational structure (Eskom 2014: website).
The dedicated planners for Umgeni Water and Eskom are not “senior staff” but have the mandates from their respective organisations to represent their organisations at IDP engagements. Further, the planners “understand the business” of their organisations and know the strategic direction of their organisations. Importantly, they have the trust of their management and therefore when they identify an issue, they flag it immediately to their management who act on the issue. This demonstrates that whilst Umgeni Water and Eskom are public sector organisations, they operate in a “semi-private” manner which has a beneficial impact on the IDP engagements.

6. ENGAGING WITH THE IDP

The planning process for Umgeni Water is shown in Figure 15 and the inputs for Eskom’s Network Planning for Distribution are shown in Figure 16. It is shown in both figures that a key requirement in the planning for both organisations is engagement with all stakeholders and that this occurs at numerous levels i.e. not only at the IDP level as it is commonly perceived and that this engagement occurs both formally as per the contract agreement between the municipality and either Umgeni Water or Eskom and informally as per requests from the municipality to either organisation and that the engagement occurs at different management levels e.g. the CEO and the Executive Committee of Umgeni Water meet with the mayors and council of the municipalities, meetings occur with the municipal manager and the relevant managers and at a technical level between the relevant planning engineers and the internal sector departments of the appropriate municipality. However, it has been observed that whilst there are numerous meetings with the municipalities to discuss progress on projects and service requirements, none of these meetings are captured in the IDPs and the only meeting that appears to be of concern is the IDP forum. Edwards (2008a) highlighted a concern on the effectiveness of intergovernmental relations fora. The authors support this concern and ask the question: why in terms of the IDP are all the direct meetings between the municipality and the different sector organisations disregarded (these meetings are both transactive and interactive) and all emphasis placed on the IDP forum, where practically, with the huge numbers of different stakeholders, it can only be a meeting where information is presented? Is the emphasis on the IDP forum not in contradiction with the original intention? It appears to contradict the recommendation of Mubangizi (2011: 74) who states that it should not be a “one-size-fits-all” and that there should be “targeted mechanisms” and “scaling down interventions”.

It is further shown in Figure 15 and Figure 16 that a key element in infrastructure planning is demand projections i.e. anticipating the volumes of water or electricity that will be needed in the future. As infrastructure has a “design life” of approximately 20 years on average i.e. infrastructure is designed to function approximately for 20 years before it has to be replaced (this is assuming that the infrastructure is maintained properly) and that it takes approximately 30 years to pay back the debt the sector organisations incur when they borrow money to build the required infrastructure, the planning horizon for water and electricity is on average, 30 years. This is longer than the legislated IDP period of five years, which is not a planning horizon but a result of the council’s term. However, the IDP is supposed to have a 20 year vision and is supposed to include the plans showing how the 20 year vision will be achieved. It is also shown that the planning is continuous and the relevant plans are updated annually e.g. Umgeni Water’s annual Infrastructure Master Plans (see www.umgeni.co.za) and Eskom’s Transmission Development Plans (see www.eskom.co.za).
Figure 15  Umgeni Water’s planning process (Umgeni Water 2004: 5).

Figure 16  Inputs into Eskom’s Network Planning (Eskom 2014).
As different uses or activities e.g. high-income residential, middle-income residential, low-income residential, commercial, educational institutions, health facilities, dry industry, wet industry etc. require different amounts of water and electricity, it is critical in the planning for water and electricity, that the “where”, “when” and “how much” of these uses are known. Therefore, infrastructure planning needs to be fully informed of all projects are all the different stages in the project life-cycle i.e. from reconnaissance or concept level to feasibility level to design level to construction and finally implementation level. Theoretically, all stages of all projects that require water and electricity should be shown in the IDP and the progress on these projects shown in the IDP reviews i.e. one should be able to see a project moving from concept level to implementation in the annual IDPs. Equally important for infrastructure planning, the location of these projects should be shown in the annual IDPs (and if detailed planning has identified that the location of a project should change, this change should be noted in the IDP). However, the authors have observed that this does not occur and hence the requirement of the planners of Umgeni Water and Eskom to engage with all elements of spatial planning. However, the authors have further observed that not all the spatial planning that occurs at a greater detail are documented in the IDP and more concerning for infrastructure planning, private sector developments do not appear in the IDP (even in the status quo section in the annual IDP reviews which should document the changes in the municipal environment). It has been observed that private sector developments, except for extremely huge ones in some instances, only appear at the operational level of planning i.e. when a private sector development is submitted under the PDA for municipal approval.

It is shown in Figure 7, Figure 10, Figure 11, Figure 12 and Figure 13 that the volume of work for the planners which involves engaging with planning at all levels is huge and that especially for Eskom, the planner to municipality ratio has been observed from a legal perspective, Umgeni Water as the bulk water service provider to the WSAs needs to only attend the WSA IDP forum and that it is the responsibility for the WSA to provide the relevant progress notes on projects to the family of municipalities.
Figure 17  Percentage of sample in which the submitted project information appeared in the IDP per municipal financial year.

![Bar Chart]

<table>
<thead>
<tr>
<th>Percentage of IDPs (%)</th>
<th>IDP Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>58.3</td>
<td>2009/2010</td>
</tr>
<tr>
<td>66.7</td>
<td>2010/2011</td>
</tr>
<tr>
<td>75.0</td>
<td>2011/2012</td>
</tr>
<tr>
<td>83.3</td>
<td>2012/2013</td>
</tr>
<tr>
<td>75.0</td>
<td>2013/2014</td>
</tr>
<tr>
<td>83.3</td>
<td>2014/2015</td>
</tr>
</tbody>
</table>

- Yes
- No
- N/A

![Bar Chart]

<table>
<thead>
<tr>
<th>Percentage of IDPs (%)</th>
<th>IDP Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>25.0</td>
<td>2009/2010</td>
</tr>
<tr>
<td>33.3</td>
<td>2010/2011</td>
</tr>
<tr>
<td>16.7</td>
<td>2011/2012</td>
</tr>
<tr>
<td>27.3</td>
<td>2012/2013</td>
</tr>
<tr>
<td>50.0</td>
<td>2013/2014</td>
</tr>
<tr>
<td>41.7</td>
<td>2014/2015</td>
</tr>
</tbody>
</table>

- N/A
- LM Confirmed Obtained Information from DM Alignment Session
- Relied on DM-LM Relationship
- Yes
On a positive note, it shown in Figure 17 that this trends appears to be improving. However, it is disconcerting to note that whilst the project information was submitted, this was not always captured correctly and in some instances, did not even appear in the IDP (Figure 19).

A summary of the project information being submitted directly to the municipality (all the district municipalities and those local municipalities who sent an invitation) and if it appeared in the IDP and was captured correctly is shown in Figure 20. The alarming trend is that, not all the municipalities are capturing the submitted information correctly and some are not consulting with their respective district municipalities for the project information relevant to their area (in terms of water supply, this is worrying where the district municipality is the WSA).

A possible explanation for the incorrect capture of project information is that the municipality did not understand the information that was submitted to them. However, from the sample selected, all project information was submitted to the municipality in their requested format except for the 2014/2015 year as KZN CoGTA had requested everyone (all municipalities and sector organisations) to use the format they had provided. A check of the 2014/2015 IDPs revealed that most municipalities did not use the prescribed format.
Mashamba recommended the use of a “Projects Commitment Register” (2008: 435). KZN has had something similar with firstly the Provincial Spatial Economic Development Strategy (PSEDS) database and with the implementation of the KZN Provincial Growth and Development Plan (PGDP), the PSEDS database has now been replaced with the KZN Provincial Infrastructure Coordination Workgroup database. This database has been well-designed with fields that capture all the pertinent information. However, the authors have observed that everyone appears to prefer to use their own formats for the capture of project information. Whilst this may be easier from an internal perspective, it makes alignment complicated and for sector organisations who have dedicated but limited IDP functionaries, time-consuming (sector organisations invest a great deal of time and effort ensuring that they provide the correct progress notes on projects) and inefficient as they have to populate the same information in many different formats, when they could be spending that time on “actual planning” with the different municipalities.

7. OBSERVATIONS

The following observations are noted, which the limited literature review did not identify.

The authors have observed that whilst external sector organisations attend the IDP fora and participate in the IDP process, not all the internal sector departments of the municipality do so. This challenges service delivery as questions are posed to external sector organisations that should be addressed to the internal sector departments and complicates the relationship between the external sector organisation and the mandated internal sector department.
The authors have further observed that whilst the situation is slowly improving, there is a great deal of “silo mentality” between internal sector departments in municipalities, which frustrates the planning and delivery of services. The authors note with particular concern that the “silo mentality” is also prevalent within planning functions that reside in separate departments e.g. the department responsible for approval of development applications does not see the need to communicate with the IDP planner even though the PDA and other sector legislation e.g. human settlements and water and sanitation require certain projects to be in the IDP and without which, they cannot be approved.

Infrastructure planning cannot occur in isolation of a spatial context. The authors have observed with concern that IDPs appear to have become divorced from the spatial context and this is frustrating infrastructure planning. The authors have further observed that with most sector organisations, a key question is “where?” and that interestingly, if one speaks to sector organisations that have managers who were present at the inception of the IDP, they do not view the Spatial Development Framework (SDF) as a sector plan but as the “backbone” of the IDP. The changing planning legislation appears to support the divorce of spatial planning from the IDP and the question is asked: the IDP was initiated to address the spatial legacy of South Africa, if spatial planning was not intended to be the foundation of the IDP, why was the “IDP” developed, surely a normal strategic plan and a business plan would have sufficed?

The authors, from observation, put forward that perhaps, the IDP has become divorced from the primary element that integrates everything viz. the space in which it occurs and the relationships that occur in that space is because it is not always planners who are responsible for the IDP? If a person has not been specifically trained in preparing and implementing an IDP and importantly, how everything “integrates”, how can that person be expected to develop a quality IDP? The authors have further observed that whilst some IDPs are being produced by planners, these are planners who have not completed their planning qualification and therefore have not been trained in the IDP as the IDP is commonly taught in the last year of the planning qualification as it is complex (also, an IDP could be said to be a research project and if a person has not successfully completed a research project, how can they be expected to produce a quality IDP?).

The poor quality of IDPs has been recognised in the research and initiatives occurring in the working world e.g. the 2014 SALGA initiative. The poor quality of IDPs has been illustrated via a very simple method in this paper by showing that there are IDP planners that capture the project information submitted to them incorrectly in the IDP. Poor quality IDPs frustrate infrastructure planning and a poor quality IDP which does not have any spatial context is one of the primary reasons that sector organisations are forced to implement projects in areas that municipalities have not identified. The authors have observed that sector organisations do not like reinventing the wheel; they prefer that the municipality inform them of their plans and then they do what their mandate requires them to do viz. implement services but if the planning is of a poor quality, they are forced to do their own planning to ensure that they fulfil their mandate. However, the authors note with concern that some sector organisations due to political pressure and as a result of poor planning in the IDP are forced to implement unsustainable projects to fulfil their mandates. The authors also acknowledge that whilst some planning in the IDPs are of poor quality, some sector planning is also of poor quality.

8. RESEARCH CONTRIBUTION

This paper has identified the importance of understanding organisational structure and the relationships between role-players. It has further shown that whilst there is an emphasis on the “transactive” tools, there are a great deal of “interactive” tools being implemented which are not recognised in the IDP but which are critical in the implementation of services. This paper has demonstrated that for practical logistical reasons, municipalities need to work with their district municipalities to obtain the relevant information and for coordination and alignment. It has further been shown that whilst sector organisations are participating in the IDPs, municipalities do not always reflect this in their respective
IDPs and that it is concerning when project information is captured incorrectly. It is noted that sector organisations are concerned with the divorce of spatial planning from the IDP as infrastructure planning cannot occur without spatial planning.

9. CONCLUDING REMARKS

A place is not considered “Great” if does not have access to clean water, adequate and safe sanitation, electricity and other services. The South African planning system recognises that municipalities alone cannot create “Great Places” and that considering the diversity of the physical environment, to effectively and efficiently provide the services for “Great Places”, municipalities need to work in partnership with other institutions e.g. a municipality’s physical environment may not have sufficient water resources to provide the volume of water required for those residing in the municipal area. Therefore the municipality needs to work in partnership with an institution that can provide the volume of water that is required. It has been shown that the IDP is a tool that requires partnership to occur in the “making of Great Places” but there are challenges in facilitating this partnership between institutions.

The following recommendations are made to improve the collaboration between municipal and sector planners:

- Understand the mandate and structure of the relevant sector and “map the relationship and patterns between role-players” (van der Waldt 2011: 71).
- State clearly the institutional arrangements for the provision of services in the IDP as this will clearly identify the correct role-players and will benefit all elements in planning.
- Do not ignore and negate the interactive or informal tools used in the delivery of services. Whilst the transactive or formal tools should be reflected in the IDP, the interactive tools should also be documented in the IDP.

10. RESEARCH LIMITATIONS

The methodology used in the preparation of this paper had a number of limitations:

- The literature review was limited. A comprehensive literature review should be undertaken.
- The sample size of municipal IDPs was small. It is recommended that a larger sample is investigated.
- The sample of sector organisations was small and was focussed on parastatals/state-owned enterprises. It is recommended that a large sample of sector organisations is investigated.

11. FURTHER RESEARCH

It is recommended that further research is conducted on the following:

- The above section identified that this paper focussed on parastatals/state-owned enterprises which function in a “semi-private sector” manner. Using van der Waldt’s research as a basis, it should be investigated how “complete public sector” organisations i.e. full provincial and national government departments are engaging with the IDP.
- What are the reasons for municipalities capturing submitted project information in the required formats incorrectly in the IDPs?
- Do qualified planners who have completed their planning qualification produce better quality IDPs (there is anecdotal evidence in KZN that they do)?
- What has contributed to the divorce of spatial planning from the IDP?
12. ACKNOWLEDGEMENTS

The authors would like to acknowledge:

- All sector “IDP functionaries” with whom the authors have chatted to during IDP fora.
- Vishal Ramnath who kindly assisted when the company library encountered logistical challenges.

13. REFERENCES


Citizenship and Access to Housing in Emerging Communities in Mangaung

Thulisile Ncamsile Mphambukeli
Lecturer/PhD Student
Department of Urban and Regional Planning, University of the Free State
P.O. Box 339, Bloemfontein, 9300, South Africa
Tel: +27 51 401 3530/Fax: +27 51 401 3049

Public Affairs Research Institute
26 Rhodes Avenue, Parktown West, Johannesburg, 2193, South Africa
Tel: +11 482 1739/Fax: +27 86 759 6858

Abstract

The fluid movement of people across border lines has created tensions about who can claim to be a South African citizen. For the Lesotho immigrants who have settled in Mangaung, citizenship meant ownership of a South African Identity Document which they perceived as the key to accessing housing. Grasland, the study area (previously Bergman Square informal settlement), developed in the late 1990s as a smallholding where black people invaded the land. Most came from places such as Botshabelo, Thaba Nchu, Lesotho, Eastern Cape, and QwaQwa. The private land owners at that time launched legal proceedings that were ultimately unsuccessful. This paper reveals diverse trajectories to South African citizenship in Mangaung. It outlines some of the consequences for development planning in Mangaung and South Africa if there is no acknowledgement of South African socio-cultural relationships (traditional marriages, children born in Lesotho from South African fathers or mothers); as within the African context people are born across boundaries.

The study sheds light on issues of citizenship, access to housing and emerging communities from the Lesotho immigrants’ perspective of Grasland as a place of belonging and aspiration. It highlights that the barriers experienced by the Lesotho immigrants does not stop them from starting families and making the best out of their situation and that through their aspirations, Grasland can be considered a “Great Place”.

Keywords: Citizenship, Housing, Accessing services, Emerging Communities

1. INTRODUCTION

A significant number of Basotho immigrants have settled in Grasland, Mangaung in the Free State. The immigrants seek access to South African identity documents (IDs), which would grant them an entry into the labour market as well as access to housing. Pressure from immigrants on housing facilities has altered the Development Plan of Grasland. The area, formally designed to host about 7272 residential buildings, is currently occupied by over 15000 abodes. The Mangaung Directorate, Planning and Economics Department has, however, refused to recognize the additional buildings; it views the additional shelters as informal and ‘unofficial’ (See Interview with Public Sector 1). But then, for the immigrants the extra houses are a place of comfort, care and solace.

The views of the officials and immigrants, unarguably, illustrate how notions of “Great Places” are socially constructed. And such constructions are a reflection of power, prestige, privilege and position as well as class and contestation. However the literature of access to housing and other welfare benefits has been silent about such contestation; instead much emphasis is placed on the activities of social movements (Moore, 2008). This paper therefore draws from the life histories of Lesotho immigrants to reveal diverse trajectories to South African citizenship; it demonstrates ways in which ignoring the
convoluting trajectory and actions enacted at individual levels could undermine the developmental thrust of government. Through the lived and narrated experiences of the immigrants, the paper reveals that the aspiration and quest for security of tenure can have negative ramifications on governmental planning.

The main objective of this study was to explore ways in which the Lesotho immigrants seek access to South African citizenship and potentially to housing in Grasland, Mangaung in the Free State. The paper illustrates a different perspective on what might be called “Great Places” and different ways of getting there. Both life histories tell a story of Lesotho immigrants who seek South African IDs as the entry point to potential housing and other services such as employment. The two life histories involve the family, and both which shows a relationship in the quality of life the Lesotho immigrants have through people who are blood relatives across national boundaries.

This paper is divided into four sections. The first section provides a literature review on citizenship and housing. The second section provides a background of Grasland while the third discusses the methodology adopted by the study. The fourth section offers a discussion on findings.

2. LITERATURE REVIEW

This section deals with citizenship, housing and the issue of emerging communities. The ‘emerging communities’ concept seeks to explore if there are new settlements (change or established settlements) in the cities and small towns of South Africa that constitute new forms of community. It also focuses on exploring the driving forces of how, where and with whom people socialise and relate, to mention but a few. The emerging communities concept is situated within one of the broader research area of the Public Affairs Research Institute (PARI), titled ‘Social Cohesion in Emerging Communities’ project involving in-depth field work in residential settlements of South Africa’s cities and small towns.

2.1 Citizenship

Citizenship is a fluid and often contentious concept. For the immigrants in Grasland, for instance citizenship is viewed as having access to a South African ID.

“"The concept of citizenship is inherently contentious, in that it necessarily involves drawing borders around questions of inclusion and exclusion and making decisions about which rights, duties and opportunities will be attached to the status of a citizen. It is a concept that cannot possibly satisfy everyone, meaning that this drawing of borders and creation of rights, duties, and opportunities comes into being as a result of struggles, causing or being likely to cause disagreement and disputes among people with differing views. Contestations therefore, between specific articulations of citizenship rights, duties, and opportunities necessarily ensue. Because of its contentious and contested character, citizenship is always dynamic and is best understood as an ongoing process or a struggle about the creation of citizenship rights, duties, and opportunities’” – Lombardo & Verloo (2009:109).

The authors above attest to the fact that there is no universal definition of what citizenship is. The concept has evolved over time to mean different things within different contexts. According to Bachmann & Staerkle (2003:10), while the idea of citizenship may nowadays be universal, its meanings are not; definitions of what it entails to be a citizen vary significantly across national contexts, since domestic laws about who are citizens vary from state to state. Some (Dunne, 2006:7) argue that a strong link between citizenship and modernity exists and that as moderns we have inherited two different conceptions of citizenship from the ancient world (Pock, 1995 cited in
Dunne). The first being the Roman idea of citizenship as a legal status, entitling a person to certain defined rights and immunities in exchange for some degree of loyalty and allegiance. Pock argues that we still have this idea today; it is what a passport guarantees to its holder in terms of rights to residence, travel, security, welfare, ownership and disposal of property and legal redress in the case of any infringement of these rights (2006:7).

We have also inherited a more robust conception of citizenship from the Athenian polis or city-state as Honohan (2002 cited in Dunne, 2006:7) argues. Here, citizenship was not reduced to a legal status guaranteeing entitlements; it was, rather, a challenging and always precarious achievement as the dignity of being a citizen was an essential aspect of the dignity of being human, which consisted in the capacity to speak and act – and thus to seek out and live a good life (Dunne, 2006:7).

Within the South African context, citizenship is assumed to mean democratic citizenship by way of the country governed under democracy. Yiftachel (2011: 129) define democratic citizenship as “full and equal membership in a political community, and entails a combination of legal, political, economic, and cultural rights and capacities. In most recent formulations, full citizenship also means the extension of collective rights to national, ethnic and religious minorities”. The two life histories presented in this paper highlight how the Lesotho immigrants struggle under the democratic government to access housing, and how these struggles impact negatively on Grasland as a “Great Place”. Furthermore, the status of the Lesotho immigrants in South Africa who are not recognised as ‘South African citizens’ because they do not have the green bar coded identity document, may be conceptualized by what Yiftachel (2011:134) terms “ghettoised citizenship”. This observation is based on the fact that the Lesotho immigrants experience segregation in housing in that their immigrant status prevents them from accessing housing. This segregation is in contradiction with Section 26 (1) of the Constitution, which states that everyone has a right to have access to adequate housing.

2.2 Housing

Housing is meant to satisfy basic human needs for shelter and security by providing protection against climatic conditions (excessive heat and cold) and unwanted intrusion from insects, rodents and environmental nuisances such as noise that may be harmful for health and well-being. Furthermore, housing contains household activities and possessions (Lawrence, 2004:491). In Grasland, the occupation of RDP and ‘informal’ houses by the Lesotho immigrants puts them in very insecure positions as there are no guarantees that they will eventually own these houses. Furthermore, the condition of the ‘informal’ houses in Grasland Phase 4, especially during winter months is dehumanising but still for the Lesotho immigrants, life in Grasland is perceived as far better than what they have experienced back in Lesotho. Chaudhuri (2004 cited in Govender et al., 2011:335) argues that insecure occupancy of housing and limited prospects of secure employment makes living conditions difficult for the underprivileged worldwide. Such living conditions include poorly constructed housing from inferior quality building materials and limited building skills; the location of housing on contaminated or disaster prone sites; limited basic services like clean water, garbage collection and sewage treatment.

The dominant element of South Africa’s housing policy is an income-related capital subsidy, aimed at purchasing land, securing tenure, delivering infrastructure services and a basic house for qualifying households. The subsidy was meant as a once-off ‘contribution’ by the state aimed at meeting the African National Congress’ (ANC) objective of ‘housing for all’. Furthermore, applicants qualify for the capital subsidy by meeting a range of criteria, most notably by demonstrating South African citizenship, household income below R3500 per month and, if the applicant is single, that he or she is supporting dependents (Charlton & Kihato, 2006:254). Subsequently, if people cannot prove South African citizenship, they are not considered for the capital subsidy or any benefit that is deemed relevant for the South African citizen.
3. DESCRIPTION OF GRASLAND

Grasland (Fig 1) developed in the late 1990s as a small squatter camp, where black people invaded the land and settled. Many of the settlers came from places such as Botshabelo, Thaba Nchu, Lesotho, Eastern Cape, “Transkei”, Gauteng, Somalia, Pakistan and QwaQwa. The private land owners at that time launched legal proceedings to eject the new settlers and won the case. However, the Department of Land Affairs and the Provincial Government’s Spatial Planning Unit contributed money and bought Grasland from the private owners. Hence, Grasland became public land. The conversion of the land from private to government property demonstrates struggle for justice, dominion and power as well as an attempt to make a particular regime accountable to the yearning of the people it claims to govern. The view is highlighted by one of my respondent, a former ward committee member. He recalls that:

“People started to stay here in 1998, that time when we came here it was an informal settlement, a squatter camp, that is what we did and we knew very well that the land we occupied was privately-owned, it was owned by the plot owners but we could not expand to where we are now, we were staying on top. That time the councillor of this area was Freedom Front Plus councillor, he was staying on the plots, Bloemspruit plots. We stayed here since 1998, ‘99, we went to the elections where the elected the ANC councillor, Ntadi Eddie Koliate*. Then immediately after that we started the negotiations with the municipality because at that time when the Freedom Front was leading here, we could not talk to them, I think you understand why, He was white, we were black and we were staying in the squatter camp, it was difficult to get hold of him. It was difficult for us to say to him ‘can’t you talk to the municipality or wherever you are, try to tell the municipality that we are staying here and we don’t have anything including land, water – all those things’. So, it was difficult on our side, after we have elected the ANC councillor, Eddie Koliate*, it is where the municipality started to understand that there are people staying in Bergman’s Square, that time we were calling it Bergman’s Square, who are in need of the residential sites, including other services that can be provided by the municipality. Then immediately after that the ward committee was elected and I was a member of the ward committee by then.”
The residents of Grasland two, then Bergman Square organised themselves and used their power as voters to remove the then existing councillor and replaced him with someone who was more sympathetic to their cause. The replacement of the old councillor allowed them to be part and parcel of formalising Grasland. Grasland phase 2 councillor recalls:

“They attended many meetings where we were discussing about the issues of Bergman Square. In 2003 the municipality came to us and said they have appointed the planner who was going to plan the area, this area of Grasland 2. That planner, his surname is Mr Mosatwana, then Mosatwana planned the area, after that he brought the map to us, it was not a final map, it was a proposal, he brought the map to us as a community saying to us here is the map, can you come with your input then he introduced us to the school sites, church site, park all the things. We changed the map somewhere, then he went back, corrected the map, he came back to us and then we said that is what we want and then after that Grasland was formalised. The first peg was erected on the 6th of October 2003, it was nine o’clock, and I was there”

Grasland began therefore as a pilot project in 2003. According to a Free State Province Report on Upgrading Informal Settlements Pilot Project to the Portfolio Committee on housing (2003:1), the Free State Province identified the provincial pilot project in Mangaung Local Municipality (now Mangaung Metropolitan Municipality). The project came about as a consequence of land invasion on a large scale on private property in the small-holdings area in Bloemfontein located in the south eastern extends of the city and over a period of time the numbers grew to more than 3000 households. Most of the informal settlers started to put forward requests for services to the local municipality and the problem was amplified in different forums. The local municipality was also alerted to the plight of the land owners via several delegations to the province and the local municipality who were unable
to deal with the situation comprehensively. Inter-actions then ensued between the parties and as a consequence, the Department of Land Affairs was approached for availing resources to purchase plots from their respective owners in order to solve the land problem. A tri-partite arrangement was struck between the local municipality, the province and the Department of Land Affairs to deal with the matter (2003:1).

The Free State Province Report on Upgrading on Informal Settlement Pilot Project to the Portfolio Committee on Housing (2003) breaks down the phases of the project. The report states that the pilot project identified three phases and the scope of the project was to span three financial years starting from 2004/2005 to 2007/2008. The phases were broken down in the following manner:

**Phase 1**

Phase 1 was mainly identified for middle-income households and was allocated to a private developer in an effort to promote private sector involvement and integrate socio-economic groupings within the city. The development of this phase delivered a total of:

- 1241 residential sites, three business sites, public open spaces, two municipal sites, three worship sites, and three school sites

The level of services installed in this area was reported as **full level of services**, meaning tarred roads, house connection of water, full water borne sewerage and electricity.

**Phase 2**

Phase 2 was earmarked for low-income households, the majority of which had been relocated from the initially invaded private property. The development of this phase delivered a total of:

- 2831 residential sites, seven business sites, three public open spaces, three municipal sites, five worship sites, three school sites, and three crèches.

The level of services installed in this area was intermediate level of services, which means gravel roads, erven, connection of water, ventilated improved pit latrines form of sanitation and pre-paid electricity. It was reported that the level of services was temporary and what was on the ground was:

- Scraped dirt roads, temporary pail system, non-defined storm water system, 1400 electricity connections (the second phase for the 1431 sites was unfolding), and water provided at Reconstruction Development Programme standards.

**Phase 3**

Phase 3 was an extension of phase 2 and was earmarked to produce approximately 3200 residential sites. The process of land acquisition was at 85% of all earmarked properties, parallel to this action, planning and surveying of the land was reported to take place for finalization in the 2005/2006 financial year.

Phase 3 of Grasland at the time was reported as being formalised and the application for Township Establishment had already been submitted to the MEC awaiting his approval. It was reported that there was a problem with Phase 3 in that the illegal squatters realised that the area was being formalised came to occupy the area, thus disturbing and delaying the formalisation process. The municipality successfully applied for Eviction Order in the court of law through Prevention of Illegal Occupation and Unlawful Eviction Act (PIE). The illegal occupants were supposed to have vacated the area by the end of June 2005 to allow the completion of formalising the area.
To date, however, the pilot project was never completed and Phases 2 and 3, in particular, are still characterised by inadequate basic services such as proper sanitation and stormwater drainage; which has been the case since 2002. A Grasland resident remembers:

“To me now, it is like I am getting used to it [life in Grasland], that is why I say it is nice because it is different from Lesotho, transport is there, water is there, but the problem is the sewerage, sure everywhere you can see there, you have seen, the sewerage explodes everywhere, even last week it was exploded hear near my, flowing here near my, in my garden, in my yard.”

Grasland Phase 4 (Khayelitsha informal settlement), which is an extension of Grasland Phase 2 and 3 has an estimated 6 000 plus households. An interesting character of phase 4 is that almost all residents in the informal settlement have connected themselves to water pipes. It is also characterised by a high presence of Lesotho immigrants whom because of not being in possession of a South African identity document have been moving from phase to phase as ‘formal’ RDP houses provided by the government for people who were in possession of South African identity documents, were being erected.

4. APPROACH & METHODOLOGY

A qualitative research design based on the phenomenological approach was used in this study. Phenomenological approaches are rarely used in urban and regional planning. Urban and regional planning as a discipline tends to contribute to a physical layout and subdivision to the neglect of the human experiences. According to Creswell (2013:76), a phenomenological study describes the common meaning for several individuals of their lived experiences. The basic purpose of phenomenology is to reduce individual experiences with a phenomenon to a description of the universal essence.

“The specific phenomena” that the study concentrated on was on how the Lesotho immigrants articulated their life histories as they proceeded to gain access to the South African ID and housing. The life-history interviews were conducted in order to ascertain life experiences of the Lesotho immigrants that influenced their struggles. Hence, two life histories were selected because both had common elements. They were both from Lesotho, classed as immigrants; seeking access to the South African identity document, housing and a place where they could belong through security tenure. The two cases illustrate different ways in which the Lesotho immigrants’ struggles to access the South African ID and potentially housing in Grasland.

4.1 Research Questions

Five broad and open-ended research questions were asked to participants for this study, namely:

1. Where do you come from?
2. Where did you grow up?
3. When did you come to Bloemfontein, Grasland?
4. What are you doing now?
5. Where do you think you are going with life?

The above questions allowed the participants to respond from their life experiences and for the researcher to “focus attention on gathering data that led to a textual and structural description of the experiences, and ultimately provide an understanding of the common experiences of the participants” – (Moustakas, 1994 cited in Creswell, 2013:81).

4.2 Research limitations
This research paper is part of my PhD research work titled ‘exploring the strategies employed by the greater Grasland community in accessing basic services in conditions of inadequate basic service delivery in and through formal municipal planning processes of the Mangaung Metropolitan Municipality’. The limitation of this paper is that it only provides the Lesotho immigrants’ perspectives and not all those of the greater Grasland community.

5. RESEARCH ANALYSIS & FINDINGS/RESULTS

A brief background of the Lesotho immigrants’ two life histories is presented in this section, followed by an analysis and a discussion of the research findings.

Life History 1: Thato*

Thato* is a black male who was born in Lesotho, his mother is from Lesotho and his father is a South African. He is waiting for his South African born father to facilitate his access to an ID so that he can qualify for an RDP. Thato* and his brother were born from the same father, but raised by different extended family members. After the passing of Thato*’s mother, he and his brother decided to leave Lesotho and came to South Africa, to a place called Sterkspruit (Eastern Cape) in 2004. His father who was born in a place called Botshabelo, in South Africa searched for him and eventually found Thato* in Sterkspruit and brought him to Bloemfontein, Grasland 2 in 2008-’09, where he owns an RDP house. Thato*’s father had promised to buy a car and to open a shop for him. However, because his father is married to another woman with whom he has five children, challenges started to emerge. Thato* does not have a South African ID, seven years later. The interview with Thato* emanated from him when he inquired about his life situation as follows:

Thato*: I would like to ask a question, let’s say I was born in Lesotho, my mother is from Lesotho and my father South Africa, and my father gives me problems when he should be helping me to receive my identity document? What must I do?

Interviewer: Where were you born? Where was your mother born?

Thato*: Actually I was born in Lesotho. My father’s mother originated from Lesotho and my father grew up in Lesotho but eventually came down to South Africa with my mother and after they separated my father married a second woman and they have five children together. Then he went back to Lesotho to look for his child (Thato*) and he was told his child lives in Sterkspruit in South Africa.

Interviewer: Why don’t you go to the department of Home Affairs so that they can help you?

To date Thato* does not have any identity document, one of the reasons that Thato* mentioned is that his father’s wife is insecure of him getting access to an identity document because she thinks he might inherit the wealth of the father as he is the eldest of all the other children from the second wife. Thato*’s father has a brother who stays in Phase 4 ‘Khayelitsha informal settlement’, of whom Thato* regularly consults as he is desperate for an identity document.

Life History 2: Thobile*

Thobile* is a sister who is fighting for her family (father and four siblings) to be close to her. She is waiting for her South Africa ID to which she is entitled by marriage. Whilst waiting she has to support her father who was born in South Africa and married a Lesotho woman, but does not have a South African birth certificate to prove his citizenship status, hence cannot access a pension grant...
even though he is over sixty now and qualifies. Thobile* introduced me to her father, Bafanyana*, who is sixty-seven years old. Bafanyana* was born in Senekal from a South African father and Lesotho mother. He stays in Namibia Square which is within a 5km radius from Grasland. Thobile*’s father rents an RDP house, which is paid for by his daughter who now supports him because he does not receive a pension. He has a Lesotho identity document and informed me that at a time when he was born, they were not issued with birth certificates and unless his brothers and sisters write an affidavit that he is indeed their sibling, he remains without any South African ID or passport.

**Interviewer:** What makes it difficult for you to get an identity document when your siblings have identity documents?

**Bafanyana**: The one who comes after me has an identity document and receives a social grant. Mine got lost a long time ago and I didn’t go back to apply for a new one.

**Bafanyana**: I’m afraid to go to Home Affairs because they may deport me back to Lesotho. Back in the day there were no birth certificates but baptism papers from church.

Thobile* also introduced me to one of her three sisters who is now married to a South African man. This particular interview was interesting, in that it enquired about the process of acquiring an RDP house from Thobile*’s sister’s perspective. When asked about the process that one has to go through in order to acquire an RDP house, she responded:

**Sister:** In my case I do not qualify for an RDP house because my man works for the government. So, I have to build my own house because they told me I don’t qualify for an RDP as my husband earns over R2000.

**Interviewer:** How are you finding life here in Grasland?

**Sister:** I’m happy to reside here but then the challenge is service delivery, we don’t have toilets and the roads are bad.

**Interviewer:** I’ve been told that most people who live in Grasland are originally from Lesotho. So if you are from Lesotho how does access to an RDP house works?

**Sister:** It is impossible to get an RDP house if you are from Lesotho because of the fact that you don’t have an identity document. Those who have RDP houses must marry a South African husband or wife first, and then they can get a house. If you don’t have a wife you will just suffer like that because you are a Lesotho citizen, so you don’t get any services. No identity document, no services, unless if you are married to a South African. Like my brother and sister, they live in Khayelitsha.

**Interviewer:** How long have they’ve been staying in Khayelitsha?

**Sister:** For one year now, my siblings say and we are all hoping they are going get a house.

**Interviewer:** How though?
Sister: We don’t know but they would like to have a house but they will never get it because they have no identity documents. Maybe my sister can use my husband’s identity document in order to get a house (laughter)!

Two key themes emerge from the life histories of the two immigrants. The first is the diversity of trajectories to South African citizenship and access to housing. The second speaks to the consequences for development planning in Mangaung as a result of the diverse trajectories to South African citizenship.

5.1 Diverse Trajectories to South African Citizenship

The life histories reveal interesting ways in which the Basotho immigrants access housing in Grasland. They can settle there through a family member or relative already in the area and later access RDP houses through marriage with a South African who possesses an identity document. Alternatively, if a person is not married but has a child born in South Africa, the baby’s birth certificate and the partner’s South African ID can qualify under her to apply for an RDP house. Thobile*’s life history for instance, illustrates access to housing through marriage:

Interviewer: How did they get the RDP houses then? I see, you have built your own house but the other people how were they allocated houses?

Thobile*: Because I gave birth to a South African baby, my baby has a birth certificate and her father has an ID, they can qualify to apply for an RDP but I didn’t qualify because I am married to him, the other ones are not married, that is why they qualified for the RDP, so now I won’t qualify because I am married to him

Thirdly what makes Grasland a “Great Place” is that even though the Lesotho immigrants are not recognised as South African citizens and experience barriers in attaining security of tenure, the place is characterised by the presence of strong family networks. For instance when asked whether all family members had migrated from Lesotho to Grasland, a Grasland resident responded:

Thobile*: My elder sister came first and I was living with her for studies, that’s where I met this guy and then this one [pointing to her younger sister], is now one year, she was coming here to look for a job. In Lesotho there are no jobs, no job and here in Grasland, all of us, we are from Lesotho, it is many of us, all of us we are Basotho.

Even though access to South African citizenship and subsequently housing and other services is obtained mainly through marriage, for some Lesotho women immigrants, if for instance a man dies that access is no longer guaranteed. The family of the deceased in some cases chases the woman and her children away and the house gets ‘sold’ or given to another ‘family member’. As Thobile*’s father remembers:

“Abantu basezingondweni eziningi”

The above comment speaks to the ways in which people in Grasland find ways, some which are corrupt to generate income from selling RDP houses, to family members. Moreover, some arrangements are made whereby the family takes all the possessions of the deceased and the woman is either allowed to occupy the house if she has children or another family member with the same surname as the deceased, buys the house.

5.2 Consequences for Development Planning in Mangaung

Interesting questions have emerged from this study. For instance, who is recognised as a South African citizen? One of the consequences for planning in South Africa is that we do not acknowledge South African social relationships (traditional marriages, children born in Lesotho from South African fathers or mothers). Particularly in many African and Western contexts alike people are born across boundaries. Furthermore, we view families as nuclear, with a father, a mother and children
and this is a false view. In Grasland for instance, there are extended families as *abantu bayazalana* (people procreate all the time). Currently, the children of Grasland residents have grown up and some are married to Lesotho immigrants who are not recognised as citizens. They start families; hence, we see extensions such as Khayelitsha, Freedom Park Square and *Dinaweng* (loosely translated the name means the place of the clitoris! is related to women who are sex workers commonly found in this area as they are labelled and blamed for selling their bodies).

In South Africa, planning legislation seems to contradict itself. For instance, it avails basic services only to South African citizens, thus promoting ‘apartheid citizenship’. According to Polzer (2009:5) several challenges currently affect South Africa’s ability to benefit from human mobility and thus hinder the creation of “Great Places”. These include: planning for population movement at provincial and local government level; ensuring access to basic rights and services for all, preventing xenophobic and supporting social cohesion, managing migration; enabling migrant contributions to local and national economy; effectively implementing the asylum system; the migration of children and unaccompanied minors; border security, smuggling and trafficking; increase sub-regional convergence and coordination; and developing effective inter-departmental data gathering and policy cohesion tools and capacity building mechanisms.

The life histories presented in this paper clearly illustrate the challenges alluded to by Polzer above. For example, while South Africa’s Constitution guarantees basic and socio-economic rights, these are generally limited in their implementation. This is due to a lack of knowledge among service providers as to who can have access to these services. Thato’s life history shows how the absence of proper South African documentation can deny services even to those that are entitled to them. While Thato is in reality a SA citizen, the fact that he is unable to prove his citizenship means that he is being excluded from the benefits that he is otherwise entitled to. Thobile’s father, Bafanyana, is also in the same boat: he was born in South Africa, but he has no documents to prove his case. So, he is losing out on a pension that he is legally entitled to receive.

Thato and Bafanyana are not the exceptions in Grasland. Many others like them face similar or even more challenges. But, it seems there is little that is being done to address the challenges that are faced by Lesotho immigrants in Grasland as well as other migrants in some parts of South Africa., Currently planning adversely influences the life of large groups of immigrants and creates spaces of socioeconomic structural deprivation and inferiority. However, these realities can be changed, for instance, by responding to the needs of the Lesotho immigrants, to gain access to housing and other basic services of which in the case of the two life histories presented in this study, clearly have legal claim to. Grasland will indeed be a “Great Place”.

Besides, the common reality of cultural contexts anywhere in the world is the issue of land. It seems that Lesotho immigrants in Grasland are looking for security of tenure. Over and above this need, for a sense of belonging is a collective identity that the urban spaces creates, what Yiftachel et al (2001:129) term ‘collective identities’. According to Yiftachel et al (2001:129), a key long-term consequence of urban and regional planning – rarely explored in planning scholarship – is the shaping and reshaping of collective identities. This identity is constantly affected by the processes of development and socio-political division of space. Thato*s and Thobile*’s life histories and many others like them in Grasland and surrounding areas attests to this. For instance, Thato* is not in possession of an ID but identify with Grasland as home, a place where he belongs. However, without and ID he will not be able to secure tenure. What is likely to happen to Thato* should planners decide to build ‘formal’ RDP houses in Grasland, Phase 4*Khayelitsha informal settlement*?

6. RESEARCH CONTRIBUTION

The two life histories represent the aspirations, the needs and the kind of social justice the Lesotho immigrants expect in Grasland. To a larger extent, the two case studies reveals that the kind of planning needs to be made for the Lesotho immigrants are different from generic assumptions made on what planning out to do or provide for ‘the people’ who are perceived as South African citizens.
Hence, interesting questions have emerged from this study. Since people are born across boundaries in many African contexts and as the case in South Africa, whom does the Mangaung Municipality recognise as a South African citizen in Grasland? Secondly, what criterion is used to determine the citizenship status? Furthermore, it is a false and a Western view to think of families as nuclear (a father, a mother and children). In Grasland for instance, the two life histories showed that the nature of extended family structures exists beyond the nuclear family view.

The consequences for planning in South Africa is that we do not acknowledge social relationships (traditional marriages, children born in Lesotho from South African fathers or mothers, children born in South Africa but moved to stay in Lesotho and were issued with Lesotho citizenship papers etc.); across boundaries. Yet, these social relationships are characterised by the aspirations of immigrants who dream of securing tenure for themselves and their children, who were born in South Africa and are South African citizens.

7. CONCLUDING REMARKS

This paper has displayed that diverse trajectories to South African citizenship have potential to hinder the planning processes that are conceptualized as democratic and aiming to achieve social justice. Through the two life histories it has also provided an empirical response on issues of citizenship, access to housing and emerging communities from the Lesotho immigrants’ perspective of viewing Grasland as a place of belonging. It highlighted that the barriers experienced by the Lesotho immigrants does not stop them from starting families and making the best out of their situation and that through their aspirations, Grasland is a “Great Place”. For instance, their children still go to school; and when they cannot access antiretroviral drugs from the clinic, they share these drugs whenever someone runs out of them so that the person does not skip their dose. Even though many are working in precarious conditions, and have to provide for their loved ones; they do so whilst they live in Grasland.

8. ACKNOWLEDGEMENTS

This paper would not have been possible without the support of my supervisors, Professor Verna Nel and Ivor Chipkin, from the University of the Free State and the Public Affairs Research Institute, which is part of the University of Witwatersrand, respectively. I would also like to acknowledge the contribution of Dr. Victor Okorie from Obafemi Awolowo University, Nigeria who has played and continue to play a significant role in the development of my PhD work; and the Postgraduate School at the University of the Free State for their constant support and guidance. Lastly, acknowledgment goes to the Grasland residents who have opened up their homes to me and allowed me to gain access to this rich information.

9. REFERENCES


Exploring Flexible Governance Models for Resilience: the Merger of the Environment and Infrastructure Departments in the City of Johannesburg

Costanza La Mantia

Postdoc Fellow
School of Architecture & Planning / University of the Witwatersrand
1 Jan Smuts Avenue, Braamfontein, Johannesburg, 2000, South Africa
Tel: +27 (0)11 717 9999, Email: costanza.lamantia@wits.ac.za

Abstract

Resilience Theory states that urban systems are complex-adaptive, social-ecological systems. As such, they are dynamic and ever changing. The management and governance of these systems thus needs to be able to face, adapt to and respond to constant change; change which is at times predictable and at others wholly unpredictable. Defining “Adaptive Governance” as “the ways in which institutional arrangements evolve to satisfy the needs and desires of the community in a changing environment” (Hatfield-Dodds, Nelson, & Cook, 2007, p. 4), Resilience framework calls for a kind of management and governance to plan for likely change or disturbance, while at the same time being adaptive to unforeseen change in the city.

In 2011, Johannesburg’s Growth and Development Strategy 2040 was approved. The strategy has a strong focus on urban resilience, recognizing the need for resilient and adaptive urban governance, as well as the need to re-look at and alter its institutional design when required. In line with the Development Strategy, in 2011, the Infrastructure and Environment Departments of the City were merged into one department, as “both functions drive the same strategic policies and are governed by a similar legislative framework and regulation” (City of Johannesburg, 2013, p. 5). This represents a strategic attempt to experiment flexible and responsive governance models for the city of tomorrow.

The paper explores the theoretical and practical implications of the merger of two municipal departments in the CoJ as an experimental model for a more flexible and responsive governance. With a focus on urban resilience and through the lens of adaptive urban governance, the paper stands as a critical review of the merger process itself, aiming at extracting lessons for understanding and building more adaptive urban governance processes for “Great Places”: a kind of Governance able to better address and respond to the changing needs of the city of Johannesburg and its citizens.

Keywords: Urban Resilience, Sustainability, Flexible Governance, Adaptive Management.

1. INTRODUCTION

1.1 Resilience and a Sustainable Urban Future

Expanding cities are at the heart of an over-consumptive world economic order, asking for reconsideration of several important considerations of urbanization, climate threat, resource scarcity and depletion, economic default and the need for an evolving, critical knowledge (B. Gleeson, 2014). Our world is an interlinked system of cities, and cities themselves are linked, complex, socio-ecological systems, where human behaviours have the greatest impact on the socio-ecological balance of the planet at large.

Resilience theory has re-framed our world as complex, dynamic and adaptive – undermining assumptions of stasis and equilibrium and reshaping our approaches to sustainability, replacing, in many cases, the concept of sustainability in the institutional discourse. Systems thinking has
therefore become crucial to problem solving for urban planning and policy – since no issue exists in isolation – whereas all are part of a larger system of interacting networks: ecological, biological and geophysical networks, social networks, political networks, and economic networks (MacPhearson, 2013).

The concept of Resilience offers a new paradigm to understand and act on our cities, and has helped reveal that governance failures are the origin of many resource management problems (Chelleri, 2012). In particular, climate change and other threats have shown the inability of current governance systems and models to deal with present and future challenges (Pahl-Wostl, 2009). Aside from the need to deepen the understanding of the resilience concept and consequent paradigm, our cities need to experiment with better ways of governing themselves, and to develop responses to immediate crises while progressively moving toward new, and more sustainable development patterns.

1.2 Urban Resilience Definition and Characteristics

Resilience is the ability of a system to remain within a domain of attraction while exhibiting dynamic behaviour (Folke et al 2005). When a system is forced beyond the boundaries of a certain systemic balance, a qualitatively different pattern of behaviour may emerge (regime shift), manifesting itself with either negative or positive behavioural changes.

In any system, components or systemic behaviours of the components (variables) undergo change, but the rate and nature of change varies itself. Some elements or variables may change rapidly, others gradually (Folke et al 2005). The characteristics of the new state (regime) will depend upon the feedback between this new regime and the driving variables in the system. The understanding of the different pace of changes in variables is also a critical factor to be taken into account in understanding how changes in one part of the system may affect other areas.

When trying to alter or interact with a system, aiming (for instance) to make it more sustainable, slow changing variables can be problematic to trigger or even just to grasp. To use an example from policy-making, while policy is slow to change – whether at the neighbourhood, city, or state scale – because it is “part of a system that tends to reinforce itself” (MacPhearson, 2013), people’s spontaneous behaviours can change more rapidly because they are affected by daily mechanisms.

Those changes become new system dynamics, determined by people’s spontaneous reactions to certain mechanisms (variables), which, in turn, produce relative behavioural changes in the system at large, often indirectly affecting policy-making as a reaction to those changes. This view makes governing complex systems an ever-changing challenge, and raises the legitimate question whether change can be really “governed.”

Although it is not possible to understand the behaviour of systems by studying its parts alone, Resilience and – more generally – system thinking, give us tools to study entire systems, while underlining that a certain degree of the unknown, unpredictability and uncertainty must be accepted. Moreover, some of the implications of Resilience thinking – as with the concept of ecosystems – play an integral role in how we think about the nature of cities, unpacking and providing new foundations for organizational theory.

1.3 Flexible Urban Governance for Resilience

Many authors underline how Resilience thinking provides a useful insight into the challenges and implications of change in institutions. If the capacity to adapt to and shape change is a central component of resilience of social-ecological systems, it is also a central issue in governing our cities (Anderies et al 2004; Anderies et al 2006). In its broader context, resilience focuses on ecosystems and people together as integrated socio-ecological systems, in which social systems and ecosystems
are recognized as coupled, interdependent, and co-evolving (Berkes et al 2013). If applying systems thinking can help us move towards a better basis for sustainable development – meaning one driven by a socio-ecological systems approach towards resilience – we also need to learn how to change the way we govern our cities and our world (Folke 2006, Berkes et al 2003).

Resilience theory intrinsically deals with system dynamics by envisioning ecosystems as continuously changing complex systems. In urban policy fields, resilience theory helped bridge a complex divide amongst the social and natural domains, risks, threats, unplanned factors, and a general “uncertainty”, and the socio-political possibilities of institutional response to future challenges. In other terms, resilience make us question how governance arrangements affect the functioning and performance of innovation in navigating transitions toward socio-ecological system-based management and governance. The focus is on socio-ecological transitions and transformations, the emergence of socio-ecological technical systems, governance for innovations, and the role of agency (SRC, Definition of Adaptive Governance).

By challenging classic management approaches, new modes of managing and governing change in human and natural systems emerged, challenging the legacy of the modernist “command-and-control paradigm” (Engle et al 2011) in favour of more flexible and adaptive management approaches, which also highlight factors as spontaneous dynamics and cross-scale interactions.

2. LITERATURE REVIEW

2.1 Resilience as a Multi- and Inter-disciplinary Concept

The concept of resilience was introduced by Holling in the field of ecology. Successively, studies of vulnerability and resilience have evolved with particular relevance to human social systems and their integration with the natural world and the built environment. Since resilience has been long interpreted as the ability of a system to recover from an unexpected/sudden external stress, the concept has been widely applied in natural disaster recovery/management. More recently there has been growing interest in the concept of resilience as a “concept for understanding, managing, and governing” (Walker, Anderies, Kinzig, & Ryan, 2006) complex social-ecological systems.

Most of the resilience research applies system thinking and it is rooted in post-positivistic epistemology (Walker et al., 2006), but the concept has been applied across different disciplines assuming sometimes-contradictory characteristics (Medd & Marvin, 2005:45). Amongst the different conceptualizations of resilience approaches, socio-ecological resilience seems to be the most influential in planning theory, bringing attention to critical substantive matters concerning the impact of planning approaches, methods and decisions on ecosystem services (Wilkinson, 2012). It also embeds planning policies through the debate about sustainable development and adaptation to climate change, expanding the idea of resilience to urban and regional studies (Lang, 2010).

Subsequently, urban Resilience has become an area of explorative research under rapid development with major policy implications for sustainable urban development. (Lang, 2010). The body of literature surrounding the Resilience Thinking is rapidly growing and diversifying consequently. This research theoretically frames resilience as the “key to sustainability” (Walker & Salt, 2006), and mainly refers to the wide body of literature building on Ostrom’s work (Ostrom et al 2002; Ostrom, 2005) and discussing Institutional approaches to the challenge of Governing for Urban Resilience, analysing the challenges of enabling (positive) transformative capacity within institutional settings.

From a first analysis of the specific literature applying resilience thinking to governance and management, the existence of a series of different terms to describe flexible forms of governance and multi-level institutional frameworks immediately emerges: adaptive management and co-management (Olsson et al 2004; Armitage, 2006); adaptive governance (Folke et al 2005; Brunner et al 2005); and polycentric or multi-layered governance approaches (Ostrom et al 2002; Ostrom, 2005).
However, beyond some variations in terms of scale or specific disciplinary focus, they mostly converge on the aspects of iterative learning, active and contextualized experimentation and sharing of rights and responsibilities amongst different actors/agents through collaborative forms of management (Armitage, 2006).

2.2 Resilience as Transformative Capacity: Putting Resilience into Practice Through Adaptive Management and Flexible Governance Systems

Amongst the features of resilience, three are particularly critical in terms of governance and institutional settings: persistence, adaptability and transformability (Walker et al. 2004; Folke, 2006). Translating these features in institutional behaviours, it is clearly evident how we are caught in the conundrum of balancing between persistence and change, being decisive and flexible, stable and adaptive.

Numerous worldwide case studies have found that successful practices of adaptive management and flexible governance have been often characterized by a certain “messiness” and unplanned “incrementalism” (Brunner et al. 2005), but they also pointed out at a series of criticalities in implementing the adaptive management ideal (Allan and Curtis 2005). If, for example, the notion of “testing hypotheses” through applied experimentalism is widely advocated as an excellent principle, in practice, it is rarely carried out because the changes in management usually have to be strict in order to bring about noticeable changes in a reasonable time, implying “high political risks” in failing the service delivery or general administrative tasks on a daily basis (Armitage, 2006).

Folke (Folke et al. 2005) suggests that, in applying resilience thinking in the realm of governance, science and policy must accept the “constancy of change, acknowledging temporal and spatial scales of social-ecological interactions”, and accepting the limits of control-measures in non-linear systems, as well as the “complexity of balancing competing social interests and desirable pathways of change.”

But the most impactful inference is that resilience allows us think about governance differently, embracing a systems perspective and putting emphasis on learning through monitoring, feedback mechanism and reflexivity. Merging this learning approach to a polycentric view of Governance means to find a balance between Experimentation/Accountability, considering four main focuses (Armitage 2006; Armitage et al. 2008):

1. Embrace flexibility for uncertainty and change
2. Consider the importance of local contexts
3. Apply multi-scalar knowledge and involve multi-scalar stakeholders
4. Engage social networks and learning mechanisms

2.3 Adaptive Management and Adaptive Governance

Both the ideas of adaptive management and adaptive governance are concepts emerging from the application of the Resilience Thinking and framing the application of resilience to urban governance (from SRC definition of Adaptive Governance).

- Adaptive governance analyses the different aspects that build up multilevel governance and how all these aspects help build resilience for the vast challenges that are posed by global change.
- Adaptive management, adaptive co-management, ecosystem management, and various forms of formal and informal integrated resource management are all promising approaches in the local context.

Even though these two governance approaches both underline the search for new flexible, integrated, holistic forms of governance, able to deal with the complexity of social-ecological systems, they are conceptually very different.
The latter, for instance, goes beyond stakeholder participation and integrated planning, “implying being able to deal with both uncertainty and abrupt change” (from SRC definition of Adaptive Governance), enhancing learning by promoting experimentation and innovation and supporting cross-scale institutional linkages. However, one does not exclude the other; rather, a sort of mixed approach, able to mitigate need for efficiency and “functionality” of our cities and society, merged with an open ended, flexible capacity of re-addressing change “in becoming”, balancing local and global issues, is highly needed.

2.4 Governing for Resilience

Managing/Governing for resilience, then, requires a kind of governance that is adaptive, multi-level and focused on learning. And it is within this rationale that “resilience thinking helps to direct learning around some key variables that enable linked socio-ecological systems to renew and reorganize along sustainable trajectories” (Campbell et al 2010). In other words, there are some basic governance attributes or features that can enable resilient management and governance, and a review of an emerging but consistent body of literature points out some of these basic attributes enabling and addressing resilience management and institutional discourses. These features are shown in the table below.

Table 1: Selected features and attributes of resilience governance and management (prescribed values and principles) from the literature. (Re-elaboration from Armitage 2006)

<table>
<thead>
<tr>
<th>Prescribed Values and Principles</th>
<th>Literary Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Participation and Collaboration</td>
<td>Berkes et al., 2005; Lebel et al., 2006; Armitage et al., 2008</td>
</tr>
<tr>
<td>• Multi-Layered</td>
<td>Young, 2002; Lebel et al., 2006; Ostrom, 2005, Folke et al., 2005</td>
</tr>
<tr>
<td>• Accountability</td>
<td>Lebel et al., 2006; Karkkainen, 2002</td>
</tr>
<tr>
<td>• Leadership</td>
<td>Berkes et al., 2005; Olsson et al. 2004a,b</td>
</tr>
<tr>
<td>• Building knowledge</td>
<td>Olsson et al., 2006; Folke et al., 2005</td>
</tr>
<tr>
<td>• Learning</td>
<td>Walker et al. 2002; Folke et al., 2005; Armitage et al., 2008</td>
</tr>
<tr>
<td>• Trust</td>
<td>Berkes et al., 2005; Brunner et al., 2005</td>
</tr>
<tr>
<td>• Networks</td>
<td>Olsson et al., 2004; Janssen et al. 2007; Ostrom 2010</td>
</tr>
</tbody>
</table>

Nevertheless, as stated by several scholars (Anderies et al 2006, Walker et al 2002), the link between governance arrangements and the capacity to manage resilience remains related to a series of variations, linked to “individual and organizational capacities”, as well as the institutional (formal and informal) relationships among system-actors having “scale-dependent” responsibilities (vertical and horizontal governance), context-specific “interests and needs”, and the general “difficulties associated with inherent” compromise (trade-offs) or with the identification of appropriate points/issues of intervention (Armitage, 2006).

3. OBJECTIVES / RESEARCH QUESTIONS

3.1 Assessing Transformational Change in Joburg’s Urban Management Structure

The main goal of this research is the analysis of how the City of Johannesburg – which explicitly makes Urban Resilience one of its strategic goals – has adopted and translated the resilience approach in terms of governance arrangements. The purpose is to evaluate both the characters and the impacts of these structural transformations (positive/negative).
The research has been developed as case study-based, analysing the case of the re-organization of the Environment and Infrastructure Service Department in the City of Johannesburg. In 2011, Johannesburg’s Growth and Development Strategy 2040 was approved. The strategy had a strong focus on urban resilience, recognizing the need for resilient and adaptive urban governance, as well as the need to re-look at and alter its institutional design when required. In line with the Development Strategy, in 2011, the Infrastructure and Environment Departments of the City were merged into one department, as “both functions drive the same strategic policies and are governed by a similar legislative framework and regulation” (City of Johannesburg, 2013:5). This represented a strategic attempt to experiment flexible and responsive governance models for the management of a more resilient city.

The attempt is to assess the extent to which these transformations led to a better integration between environmental and social development goals, as well as if and how this new institutional setting has favoured a better coordination amongst different departments, increasing a general socio-ecological focus both in the service delivery and in the definition of the portfolio of priority projects. Both process and outcomes of the inherent institutional transformations related to the new Environment and Infrastructure Service Department have been evaluated, drawing specific and general indication for better urban governance.

In order to meet the research goal, a series of research questions served as guidelines to apply the theory of adaptive governance to the case study analysis. The main, general research question therefore centres on if and how governance arrangements affect the functioning and performance of innovation in navigating transitions toward a more socio-ecological system based forms of urban management and governance. This main question has been subsequently divided into a series of sub questions, to be applied in the development of the case study analysis:

- Have the reorganizational changes in COJ, and specifically the merger of Environment and Infrastructure Departments, been successful in meeting its goals of ensuring better service delivery governance structure positively affected the quality of service delivery?
- Have these changes led to a better interdepartmental coordination and efficacy in converging towards the general goal of a better socio-ecological sustainable transformation cycle?
- And lastly, what general and specific lessons can we extract on how to better move towards complex, flexible governance models and more adaptive urban governance for sustainability and resilience?

4. APPROACH & METHODOLOGY

A substantial part of the research was develop as a desktop study based both on an extensive literature review and in a revision of both public and internal documents related to the institutional changes affecting the CoJ governance system in the last 5 years: Joburg 2040: Growth and Development Strategy, Evaluation of The City of Johannesburg’s High-Level Institutional Model 2011 and 2012, Environment and Infrastructure Services Report and Structures 2013.
Figure 1. Conceptual framework to assess Resilient Urban Governance characteristics (adaptive management and multi-level governance forms). (Graphic re-elaboration from Armitage 2006).

The research methodology implied the use of a Conceptual Framework for assessing Resilient Urban Governance. The framework (Armitage, 2006) is illustrated below and it has been used as a reference and applied to the case study analysis development, both as a guideline in performing the interviews and as an analytical framework for evaluating the research findings. Alongside the desktop study, the case study analysis was developed through a series of interviews with key actors in this transformation process, such as Tiaan Elhers, Executive Director at the Environment and Infrastructure Services Department of the City of Johannesburg, and some of the main managers of the Environment and Infrastructure Services Department who have experienced the transition from the previous to the new institutional setting.

A comprehensive understanding in terms of improvements, challenges and criticalities in the analysed institutional changes and managerial transformations was therefore obtained from the findings of the interviews, allowing to evaluate the internal effects of the merger and the relative impacts in terms of a more resilient and efficient urban management for sustainability.

Lastly, the findings on the case study were evaluated against the above-illustrated conceptual framework in order to derive useful conclusions both on the specific case and in general terms.

5. RESEARCH ANALYSIS & FINDINGS / RESULTS

5.1 Joburg’s Experimental Management: an Evolving Network of Supporting Governance Arrangements and Practices

The city of Johannesburg faces significant governance complexities in trying to pursue an effective service delivery that takes into account all the stakeholders, mediating between local needs and global pressures. Nevertheless, the City has made some significant progress in the area of governance, experimenting on ways to ensure a better integration amongst development goals as well as amongst the different departments (Johannesburg GDS, 2011). This area has been supported by a progressive implementation of a series of refined governance and institutional arrangements during the last 15 years, with some important, structural transformation occurring in 2011.
The city of Johannesburg has a series of legal mandates but the quite unique element is that the services (especially the main utilities) are all run by external, independent entities: private companies of which the city owns 100% of the shares. This administrative structure has been in place since 2006. Joburg urban management is in fact based on a unique hybrid model: the management of main urban services (the basic utilities plus some additional services) is in private hands but the “property” belongs to the city, which keeps a strong focus on the “public good”. The city nominates the managerial board of the companies, and the board directly responds to the city mandates.

The reason for this peculiar, hybrid structure resides in the socio-political history of the city itself. After the 1994 elections, when the new City of Johannesburg was created at the end of the apartheid, the community was fragmented and characterized by strong polarizations, deeply divided along racial lines. This fragmentation and polarization was reflected in the various pre-existing local authorities, with their own structures and organization, suddenly coming together as a single metropolitan municipality with the establishment of the uni-city after the 2000 election, a key milestone of the transformation process of the urban governance system. From an organisational perspective it sought to put in place ‘sensible’ structures that could deliver services at greater levels of efficiency. These structures included the establishment of municipal entities with precise roles and tasks, as well as the creation of a central uni-city administration and administrative regions.

Originally, there were four major local authorities plus about seven small ones; after the restructuring all were put into one pot, forming a massive new institutional machine with no clear roles and a terrible chaos in the operational/service delivery aspects. The services started to be split amongst them, giving to each authority a certain degree of management autonomy, both financially and operationally: asking them to deliver the service, charge and collect the revenues, pay their operation expenditures and declaring and giving the dividend back to the city.

This model progressively evolved and became more structured, forming the origin of the five large companies currently managing the utility services: a system that also allowed keeping a certain degree of autonomy of the service delivery system from volatile and unstable political balances, ensuring the persistence of basic service delivery beyond any political mandate. Since then, each five years this model and the corresponding institutional structure get re-examined, assessed and transformed again. The third assessment and revision of the municipal structure happened in December 2013, the culmination of a long process of revisions started in 2011, first assessed in 2012, and modified and publicly presented in 2013 after further heavy modifications made by Tiaan Ehlers, at that time Executive Director of the Development Planning and Urban Management Department.

5.2 Merger, Clusters and Pillars: the Restructuring of the Environment and Infrastructure Services Department.

A big shift in the general objectives of the city management occurred in 2011 with the Greater Development Strategy: a series of global, strategic issues started to be incorporated at the local scale, embracing an even more long-term dimension that started to see Joburg in a comparative way with to other cities, especially in terms of coordination amongst Environment and Services, Human and Social Development, Economic Growth, and Governance: the four strategic pillars of the GDS pointing at the strategic goals of Resilience, Sustainability and Livability (Joburg 2040 Growth and Development Strategy, 2011).

---

2 Legislative requirements from national and provincial governments shape the form, function and mandate of local government in South Africa. The primary mandate for local government is derived from The White Paper on Local Government – which notes “the central responsibility of municipalities is to work together with local communities to find sustainable ways to meet their needs and improve the quality of their lives” (1998: 23). Developmental local government in South Africa is understood to include a focus on:

- Maximizing social development and economic growth;
- Integrating and coordinating;
- Democratizing development; and
- Leading and learning
The city’s transformation aimed at enhancing and making cost-effective the service delivery through reduced fragmentation, the elimination of duplication, improved accountability, and an increased focus on human resource development and monitoring and evaluation of performances in service delivery and strategic goals development. The modifications were progressive adjustments, in order to reflect the city’s strategic goals in its governance structure.

This was the first big change towards more efficacious governance, pursuing strategic goals through a better management and an efficient operational set up. At this point, the strategic and operational dimensions dominated the institutional setting and a re-structuring of the managerial and operational dimension was subsequently needed. The city started experimenting with its own management system, commencing a progressive phasing of structural and operational changes, experimenting toward a better urban management, able to operationalize and meet the GDS strategic goals.

The main consequence of the restructuring around the strategic pillars of the GDS was that the executive system started to be organised by clusters corresponding to the Joburg 2040 GDS pillars. Following this rationale the Environment and Infrastructure departments were merged into the new Environment and Infrastructure Service Department.

Figure 2. The Joburg 2040 GDS: strategic pillars and goals (Graphic re-elaboration from Joburg 2040 GDS)
The rationale of the merger was to create a sort of department with coordination capacity amongst infrastructural, environmental and service delivery issues, and able to affect the activity of all the other municipal departments, companies and agencies, in terms of a more environmental and strategic oriented focus. The functional areas identified for the Environment and Infrastructure Service Department were covering a wide range of competencies:

- Management Support
- Resource Sustainability Policy, Planning and Regulation
- Environmental Protection and Resilience
- Infrastructure Planning and Coordination
- Monitoring Compliance and Enforcement

In order to operationalize these tasks, considering a process-approach, the new setting of the Department structure was designed by splitting managerial competences over 8 sectors:

- Infrastructure Planning and Coordination
- Climate Change and Air Quality
- Water Management and Biodiversity
- Waste Management
- Impact Management and Enforcement
- Strategic Coordination
- Oversight and Management Support

But in order to allow the Department to function as supposed, a different way to induce integration and co-ordination was needed. The cluster mechanism was therefore put in support of the new function of coordination of the environment and Infrastructure Service Department. Roles and functions of the different municipal departments were clustered around some of the outcomes of the GDS, identified as interrelated to the new management structure, as, for instance, human development, competence, or sustainable services. Sustainable services was the biggest cluster,
indirectly responsible for about 65% of the operational budget of the city and including issues as transportation, housing, planning and environment, and in addition the private entities managing most of the services had also to report to this cluster.

The role of the clusters was of putting different parties together and facilitates discussion and coordination in decision making, as well as in service and project management and delivery. At the beginning there were four clusters, but after the revision of the new institutional setting in 2012, they were re-arranged around ten priorities, with champions that were not departmentally related, and a parallel requirement for all the departments of a general integration across the different priorities.

Further, responding to the logic of operationalizing the new role of the Department, the previously existing flagship programme became strategic flagship projects, and they had now to be managed in the context of all those priorities. With these arrangements enabling improved oversight (in respect of both municipal entities and City departments), and aiming at a greater scrutiny and increased accountability of the entire municipal governance system, new structures were also implemented or adapted to support these arrangements. These included performance management policies and practices, and reporting requirements, showing how the focus was moving from a more traditional outcome approach to a learning by doing kind of approach, based on feedback and loops, and applied to the entire institutional machine.

6. RESEARCH CONTRIBUTION

6.1 Johannesburg’s Urban Governance Model: An Experimental “Learning by Doing” Governance Model for Resilience

The practicalities of this complex process were many, and the main implication in the mandate of the new Environment & Infrastructure Service Department was to widen it much more than the sum of the previous Environment and Infrastructure Departments. On the other hand, the new role of the department, coupled with the clusters/priorities mechanism greatly facilitated interaction amongst the different administrative sectors and departments. In general, the meaning of the merger-as well as of the role of the Department after the merger - was to stress the focus on environmental issues as a priority for each project and policy, and in the service delivery in general, especially in terms of reducing consumption and pushing for more environmentally sound and low consumption approaches.

Other outcomes of the merger and, especially of the “clusterisation” of the departments’ activities, concern a substantially diminished presence of overlaps and conflicts with other departments, and/or within the departments. A consistent focus on sustainability and resilience embeds the entire transformation, especially through a general “learning by doing” approach, coupled to a consistent feedback control structure and mechanism. This structure and mechanism - based on oversight, evaluation and re-assessment - is highly experimental and applies the logic of the “learning loop” to the transformation while still in progress, or better, considering it as an evolving one, embracing this way one of the most challenging aspects of managing for the resilience of socio-ecological systems.

A good example in this sense could be the current attempt of the Environment and Infrastructure Service Department to develop an off-the-grid settlements upgrading programme for a series of peripheral townships, which aims to progressively address the limitations of the city’s infrastructures in a long term dimension, while providing basic services to the most disadvantaged citizens, using alternative and sustainable technologies. Such a programme would involve the coordination of many different departments in an operational setting based on experimentation and collaboration. However, while the programme is still in its conception phase, by interviewing the manager responsible for the program development, it was possible to identify a series of a priori
failures in setting up the structure of the programme itself. The main issue concerns the lack of a clear focus in a context-specific approach based on community participation and stimulation of self-organizing dynamics. Also, the still strict dependence of a highly experimental programme as this should be, on a rationale based in quantitative targets for the service delivery, rather than to a qualitative and case-specific approach, doesn’t encourage the participatory aspects and the setup of a learning network that goes beyond the internal, institutional arrangements of the City, reaching and including the various other potential agents of change for the society.

6.2 First Assessment of the New Environment & Infrastructure Services Department

In terms of efficacy in the urban management, the biggest success of the merger and clusters mechanism concerns the generally increased coordination amongst different departments, within this kind of strategic oversight role of the new Department, elaborated by following the strategic pillars of the GDS. In parallel, the cluster/priority mechanism allows the Department to ask the Service Companies for proactivity by continuously monitoring their performance in terms of quality of the service delivery. In addition, the entire organizational structure ensures a stronger and continuous political support from the Mayoral Committee to the activity of the Department because of a general coherence between the City’s strategic goals and governance structure, and because Committee members are directly responsible for certain priorities, participating in the cluster meetings. Clusters play a fundamental role in this new setting, because they allow the sharing of information, growing awareness of each other’s plans, increasing coordination and facilitating integrative planning and project delivery.

The major assessable change in the functioning of the Department refers to the new strategic framework derived by the GDS, which, besides informing the renewal of the institutional structure, makes, in some instances, the strategic dimension “rule” over the financial planning. In terms of the projects portfolio, the Environment & Infrastructure Services Department takes care only of strategic or “flagship projects”, through coordination, integration and oversight of the other departments and especially of the Service Companies. The Strategic projects have an increased timeframe compared to the past – from 1 to 3 years – therefore, if previously each single project life cycle was related to the financial year, with no flexibility at all, under the new setting there is a medium-term planning dimension able to untangle the project development from the annual financial planning.

In these terms, a good example is the Bruma Lake Strategic project. Bruma is a formerly private dam, of which original ownership was lost. For many years nobody took care of the basin, which was polluted and malodorous. The City wanted to address the issue but it was not clear how to face it, both in technological terms but especially in terms of determining under whose purview the project would fall. With the new setting, the Environment and Infrastructure Services Department took the lead, developing a flagship project for the area: the dam will be closed for environmental problems and drained. Afterwards there will be a re-naturalization process to turn the area in an ecological park. While the previous framework allowed the City to only temporarily clean the dam, without solving the underlying problem, under the new strategic framework and related operational setting there has been the chance to make (relatively) long-term plans for closing the dam and turning it into a park. However, the flexibility of the new setting in financial terms is anyway still limited: there can be a budget revision just once a year, and only in the case of strategic projects.

7. CONCLUDING REMARKS

7.1 Notes and Criticalities in Addressing Multi-Scale Governance and Adaptive (Co-) Management in Johannesburg GCR

While the City has worked hard in the area of governance improvements, further work is required. The City has made significant progresses in its performance management system, oversight and reporting arrangements. Nevertheless, a series of substantial issues are still present. One, for
instance, concerns the quality of the service delivery, which is not completely addressed by the new framework, especially in terms of decentralization, participation (of the civil society) and collaboration (with other actors/stakeholders). In order to have a major impact at the ground level – and not just in terms of efficacy and quality in oversight, management and control – a more “decentralized” structure would be needed. An issue that the same managers of the Department address as “capacity” refers both to budgetary limitations and to lack of staff competence, which represents quite a large, unsolved issue.

Another issue affecting the practical aspects of the new structure, is that there is still a sort of “resistance” from the side of Service Companies, in accepting this continuous oversight role of the Environment & Infrastructure Service Department, feeling their autonomy somehow threatened by the new operational setting. Also, other forms of resistance manifested internally, at the level of the new Department. Roles of personnel within the new Department suffered a sort of “identity crisis,” leading some people to leave their newly established positions after having long served in the previous structure.

7.2 Assessing the Case Study Against the Conceptual Framework

We can summarize the outcomes of the institutional transformation by analysing how the main attributes of resilience governance and management have been addressed within the new setting and in the analysed institutional transformation cycle in general:

- **Participation and Collaboration**: The aspect of public participation and collaboration have generally been overlooked, with the exception of the internally increased collaborative framework amongst the municipal departments, agencies and companies.
- **Multi-Layered**: The aspect of a multi layered governance and management system has been very well addressed internally (partly constituting and addressing the issue of horizontal governance), but even on this aspect, a major focus on engaging higher levels of governance and better coordinating actions and policies with the regional and national level (vertical governance) is needed to achieve a better spectrum of multilevel, or multi-layered, governance.
- **Accountability**: The accountability of the Municipality, especially in terms of service delivery and coherence in the strategic development goals is undoubtedly increased. Again, unfortunately, this, as many other aspects, was possible to evaluate and assess just in terms of internal arrangements. This was mainly due to the relatively recent transformation, which makes very difficult to evaluate the impact on the final users.
- **Leadership**: The Mayor, whom, with his strong political will and his vision is considerable as the main driver of change in linking local development goals to global, strategic issues, gained a better control of the “institutional machine”. Being part of the cluster/priorities meetings the Mayor and his Mayoral Committee were key actors in ensuring the functioning of the new. So the leadership aspect was somewhat well addressed within the transformation.
- **Building knowledge**: The aspect of knowledge-building has been widely addressed, concerning mainly the entire feedback oversight and control management system represented by the role of the Department itself, and operationalized through the clusters/principles mechanism.
- **Learning**: “Leading and Learning” were substantial slogans of the GDS, and this is somewhat reflected by the new institutional arrangements and their correspondence to the strategic framework of the GDS itself. The “in principle” guidance provided by the framework itself (referring particularly to the clusters/principles) to high level managers allows a focus on aligning / enhancing / defining mandates, clusters of actions, portfolios and functions, coupling clarity of roles and integration of goals and fostering a collective learning practice to an experimental environment.
- **Trust**: The aspect of trust is quite difficult to evaluate, referring mainly to that long-term dimension that involves citizens’ quality of life improvement, and which, due to recent nature of the entire restructuring of the municipal governance system, it is hard to enquire at the moment.

- **Networks**: Even though the City is part of international networks of cities focusing on exchange of findings and best practices on issue related to climate change, resource scarcity, new and green economies, sustainability and resilience (as for instance the C40\(^3\)), the real improvement in terms of networking was mostly internal, failing to fully engage external networks, especially in operational terms.

The major theoretical and practical implications of the merger of the two municipal departments in the CoJ as an experimental model for a more flexible and responsive governance are the prevalence of the strategy for a better governance, linked to the general development strategy (see Johannesburg GDS 2011) for the entire city, rather than the structure. In this case the strategy was informing the modification of the governance structure, leading to incrementally adjusting the structure to best meet the strategy. Having a strong focus on processes rather than on specific actions, the transformation was not oriented toward designing for the “incumbents”, but on engaging transformative change, finding a way to guarantee a basic service delivery and the normal administrative functioning of the city, while experimenting on its administrative structure: accepting risk, and recognizing that there is no such thing as perfect structure, rather a series of options – each with pro’s and con’s- that need to be considered, tested and transformed in options for strategic choices, with a continuous focus on further refinement and adjustment.

8. **RESEARCH LIMITATIONS**

The main limitation of the study concerns the fact that this kind of strategic institutional change is mainly known internally, not externally; so is its impact, especially as a short term assessment possibility. The only way in which the final customers – the citizens – can assess this is through a long-term service delivery dimension (how and if things improve for them). Since the new leadership of the various Service Companies has been in place for less than 5 years, and the city is currently in the process of hiring some of the new figures required by the structural changes, there is an absolute impossibility of evaluating and assessing the externalities of this transformation. Another important limitation of the study concerns its very case-specific nature. If it is true that a certain degree of contextual variables are part of any study embracing resilience governance and management systems, it is also true that the Johannesburg case is quite unique, due to the specific context and history of the City and the someway “transitional” nature of its governance structure since its inception. This makes it difficult to perform a comparative analysis with other contexts and structures, or to derive general, abstract indications.

9. **FURTHER RESEARCH**

It emerges, both from the theoretical discussion and from the case study development, that there is a substantial tension within the issue of operationalizing resilience in terms of flexible governance models. This tension is describable as the possibility that resilience actually gives us in dealing with the notion of how we balance between change and persistence, highlighting that it is not an either or choice. It is about thinking longer term, investing for the long term, and planning for the long term, while acting and managing the short and medium term dimensions.

The Resilience rationale highlights that flexibility doesn’t necessarily mean short-term planning, rather flexibility could mean strategically navigating long-term thinking, balancing between specific and general resilience in the everyday. We live in a world where everything constantly changes. The idea of getting into some optimal end-stage is inconclusive, since change is inevitable. What is optimal nowadays may not be optimal in 5 or 10 years’ time. Resilience thinking gives us

---

\(^3\) The C40 Cities Climate Leadership Group (C40) is a network of 40 world’s megacities committed to addressing climate change.
the intellectual tools to start playing with this tension between persistence and change, exploring ways in which we manage the same tension by integrating the change in our own systems.

This tension though, pulls us in different directions, asking for further research and experimentation on a substantial and comparable number of case studies, in order to be able to better address the results in more general terms and useful indications.

10. ACKNOWLEDGEMENTS

Considerable thanks to the Environment & Infrastructure Services Department, in particular Tiaan Elhers, Executive Director; and all the other sector managers who made their time available during my research. Thanks also to Prof. Phil Harrison and the SARChI unit at Wits for their guidance and support.

11. REFERENCES


Evaluation of Control Parameters for Smart Mobility in the Context of a South African City - A Case of Bloemfontein City

Dr Dillip Kumar Das

Senior Lecturer, Department of Civil Engineering,
Faculty of Engineering and Information Technology,
Central University of Technology, Free State, Bloemfontein, South Africa,
Email: ddas@cut.ac.za, Ph. 00-27-515073647

Abstract

Smart mobility is one of the most essential elements that are needed transform a city to a smart city. Smart mobility entails two significant components of a city such as, physical movement and accessibility through Information Communication Technological (ICT) systems. It caters to both internal and international accessibility. Plausible policy interventions are essential to meet the challenge of attaining smart mobility in a city. This investigation therefore pertains to evaluation of the various parameters of a city, which would influence smart mobility in a city significantly, and to evolve analytical logics by considering the inter-linkage and interaction of the control parameters based on systems thinking approach, which would aid to develop policy interventions to attain smart mobility in a city. For this purpose Bloemfontein city of South Africa was chosen as the study area. Survey research methodology for deciding the major control parameters influencing the smart mobility was followed. Data relating to the mobility scenario of the city and related socio-economic, physical, infrastructural, institutional, ecological and environmental conditions of the city were collected from both primary sources and secondary sources, and were utilized in evaluating the smart mobility performance of the city. Further, qualitative causal feedback relations by integrating the dynamics of the major control parameters based on System Dynamics (SD) modelling principles were evolved to derive mechanisms for policy interventions. The research findings indicate that at the current state the smart mobility characteristic of the city is very low. While among the four factors of mobility (inter) national accessibility and availability of ICT-infrastructure contribute positively local accessibility and sustainable, innovative and safe transport systems play deterrent roles in development of smart mobility in the city. The major impediments under local accessibility and sustainable, innovative and safe transportation system observed to be quality and adequate public transportation network, use of economical cars, and green mobility share. The causal feedback relations indicate that that mobility in the city is largely influenced by local accessibility, reduction in travel needs, augmentation of inter(national) accessibility and availability and effective use of ICT infrastructure. Quality and adequate public transportation is essential to strengthen local accessibility. Availability and effective use of ICT will reduce travel needs and along with public transportation will lead to sustainable, innovative and safe transportation system. Further, international accessibility will be reinforced by augmentation of inter(national) flights enabling both transfer of people and freight, and effective use of ICT by the people through availability of ICT infrastructure at both city and household level. Consequently, the combination of the sustainable, innovative and safe transportation system, local accessibility; availability of ICT infrastructure and inter (national) accessibility and feedback relations among their influential variables will assist the city to attain smart mobility.

Keywords: Smart mobility, Accessibility, Public transportation, ICT connectivity, SD modelling
1. INTRODUCTION

Sustainable and smart mobility is a challenge in most of the South African cities. The reasons are multifold. In recent times with the waning of the conventional economic activities like mining, many cities are increasingly embracing more multifunctional economic activities divorcing from earlier unitary economic activities, with incorporation of other industrial and/or service activities. The other challenge comes from globalization, openness, free market economy and advancement of the technology. In the wake of these phenomena many growing cities in the emerging economies like South Africa can be seen as potential centers of economy and are expected to embrace multifunctional economic activities with greater inter (national) embeddedness. However, the opening of economic opportunities will attract higher influx of people and will require higher movement of goods and people. In the absence adequate and quality public transportation system in South African cities, it is expected that the existing phenomenon of predominantly individually driven vehicles for movement in the cities will be strengthened leading to environmental as well as spatial development concerns.

The technological advances in the contemporary world have made particularly the physical movement faster, easier and comfortable, yet it comes at the expense of the environment. Besides, because of the need for higher physical movement and in the absence of adequate matching infrastructure and appropriate policies to either reduce the requirement of movement or to make them more sustainable, the pressure is already felt in many cities through congestion, increase in travel time, long queue length at intersections, high carbon emission, etc., and consequent societal and environmental concerns. Besides, the concerns for traffic safety still remain.

Further, as the cities advance socially and economically and look to attain more inter (national) embeddedness, the requirement of information transfer becomes important. Hence, another dimension-transfer of information is added to the existing mobility concerns of the cities i.e., transfer of goods and people. However, the transfer of information thorough a faster mode likes ICT has significant implications on the movement of people both at local city, national or international level. Particularly at the city level, it has large implications in the form the need for physical movement of people and thereby on the use of different modes of transportation. Therefore, the concerns for information transfer and its effect on the physical movement needs to be considered while developing policy interventions to attain smart and sustainable mobility in a city.

Therefore, the objective of this investigation is the evaluation of the various parameters, which influence smart mobility in a city significantly, and to evolve analytical logics by considering the inter-linkage and interaction of the control parameters based on systems thinking approach, which would aid to develop mechanisms for policy interventions to attain smart mobility in a city.

The investigation was carried out by considering the Bloemfontein city of South Africa as the study area. Survey research methodology for collecting data and a quantitative cumulative weighted average index method for evaluating the performance of the major control parameters influencing the smart mobility was followed. Then qualitative causal feedback relations based on the interactions and dynamics of major control parameters and using System Dynamics (SD) modelling principles were developed to evolve mechanisms for policy interventions. The research findings indicate that at the current state the smart mobility of the city is very low; however positive index shows that it offers opportunities for development of smart mobility. The causal feedback relations indicate that mobility in the city is largely influenced by local accessibility, reduction in travel needs, augmentation of inter(national) accessibility and availability and effective use of ICT infrastructure. Quality and adequate public transportation is essential to strengthen local accessibility. Availability and effective use of ICT will reduce travel needs and along with public transportation will lead to sustainable, innovative and safe transportation system. Further, international accessibility will be reinforced by augmentation of inter(national) flights enabling both transfer of people and freight, and effective use of ICT by the people through availability of ICT infrastructure at both city and household level.
Consequently, the combination of the sustainable, innovative and safe transportation system and local accessibility; and availability of ICT infrastructure and international accessibility, through feedback relations will assist the city to attain smart mobility.

2. SMART AND SUSTAINABLE MOBILITY

Smart and sustainable mobility is an essential requirement for a city to transform to a smart city (Giffinger et al, 2007; Komminos, 2002; Lombardi, 2011; Shapiro, 2008; Van Soom, 2009). According to industrial giants like Hitachi Corporation, it is important that means of transportation in a city coordinate in order to optimize overall service (Hitachi, no date; Toyota, 2014). In other words, the concept of smart mobility is to realize a sustainable society that enables smooth transportation without the need for people to endure inconvenience, while at the same time reducing the environmental load placed on the planet. Concurrently, the digital connectivity can be used effectively to reduce the need for physical movement, thereby reducing the load on the physical movement infrastructure and on the environment (Hitachi, no date; Smart mobility centre, 2014; Toyota, 2014).

However, a study by Hitachi Corporation revealed that while the emerging economies are placing importance on the modal shifts towards the utilizations of appropriate modes with small environmental loads, the developing economies are faced with the question of how to maintain mobility infrastructure as the facilities age (Hitachi, no date). Further, in the modern car-centric societies, many people have given priority to their own comfort in how they move around cities by car, which has led to various problems like road congestions and vehicular traffic accidents in the local city level and carbon emissions contributing to the larger ecological problems at the global level. This scenario is both complicated and paradoxical. Because, if the vehicle access restrictions are placed in the cities, it will compromise the comfort of the people, may limit the faster movement of people and goods and the city may lose its potential for future growth as well (Hitachi, no date; Smart mobility centre, 2014). On the other hand if it is allowed unabated, the societal, infrastructural and environmental problems will become more severe. Therefore, the dilemma lies about the individual values and the perspective of society as a whole regarding selection of a means of movement. While an individual gives priority to comfort and wants to be able to move around smoothly, the society as a whole looks the transportation or movement to be managed in a sustainable way, i.e., with safety, practicality, and continuity (Hitachi, no date).

Further, in the wake of advancements in the ICT, the face of mobility has been changed. It has now two significant components in a city such as, physical movement and accessibility through ICT systems (Giffinger et al, 2007; Komminos, 2002; Lombardi, 2011). The challenge is therefore the integration of these two components to achieve sustainability in terms of striking a balance between benefits to the individual and the society, while establishing a smooth and safe transfer of people and goods, which in turn is known as smart mobility (Giffinger et al, 2007; Hitachi, no date; Komminos, 2002; Lombardi 2011; Nijkamp, & Kourtik, 2011; Shapiro, 2008; Van Soom, 2009).

Various cities across the world have tried to alleviate their mobility woes and attain sustainability and/or smartness in their mobility in many ways. The various methods employed ranges from provision of technologically advanced transportation systems like BRT, compact urbanism to introduction of congestion tax. However, most of the interventions indirectly point to one end- reduction of vehicular traffic on the roads of the cities. For example, the introduction of congestion tax in Stockholm have more positive effects on the mobility with reduced congestion and increased accessibility as well as reduced carbon emission (Facts and Results, 2006: 104). Further, while levying the tax it was envisaged that the surplus from the congestion tax would be used to build a 20 km new highway. However, according to the critics this could possibly improve the short-term efficiency of the traffic system, but it will not contribute to its long-term sustainability because persons having a small ecological footprint need increased access for their livability, health and economic activities. For this reason, it is argued that raising taxes on vehicles and energy is not an alternative alone to alleviate the mobility problems.
or attain sustainability (Thynell, Mohan & Tiwari, 2010). Further, there are arguments that compact urbanism leading to short trip distances enable walking and cycling - consequently reduced fuel consumption (Monni & Raes, 2008; Newman & Kenworthy, 1989) and, lower carbon emissions in the transport sector. Contrary to this view, Torres & Pinho (2011) argues that economic growth induces higher trip lengths, more frequent trips and a lowering of vehicles occupancy rates. As carbon emission depends of the vehicle use, trip length, occupancy rate, type of fuel used and carbon emission factor (Monni & Raes, 2008) reduction in carbon emission is not expected. It is also hypothesised that land use and urban form and availability of social and economic urban functions influence accessibility through encouraging or discouraging use of vehicles and walking trips to destinations, which could cause traffic accidents as more an individual travels, the higher the chance of being involved in an accident (Handy 1996). Consequently, traffic safety remain as an important parameter in smart mobility (Miranda-Morenoa, Morency, El Geneidy, 2011; Retting Weinstein, Williams & Preussser 2001). So while evolving solutions to vehicular accident problems, large variations in the resource-efficiency indicators need to be viewed. It should involve searching through numerous potential solutions to select one that meets the specified criteria or goals for the efficient and equitable solution to the mounting urban development and urban traffic problems. In this context, the focus is to reduce individual motor vehicle travel behaviours (Badland, Schofield, & Garrett, 2008; Chakrabarty, 2007; Daniel et al 2000; Feng Wei, Lovegrove, 2012).

The main challenge is therefore to change the tendencies of over or unnecessary vehicle use. Banister (2008) argues that the idea is not to prohibit the use of cars but rather to design cities with quality and with an acceptable scale so that people do not have the need to use the car so often. Similarly it is also proposed that by creating bus and bicycle infrastructure, local authorities can influence more people to use public transport and attract people to use bicycle through a bicycle network providing direct links to destinations without conflicting with other forms of traffic, therefore reducing transport emissions (Grazi & van den Bergh, 2008; Huwer, 2000). However, according to the literature review carried out by van der Waals (2000) no drastic reduction of car trips can be expected in future through the pursuit of compact urbanism, not only because cities are rather slow entities to change their own physical nature but also because many families prefer to live in low density areas (Breheny, 1997). Besides, the experience of cities like Stockholm (levying of congestion tax) and Delhi (introduction of BRT system) revealed that modernization leads to sustainability in mobility or alleviate the mobility problems only to a limited extent (Thynell, Mohan & Tiwari, 2010).

Despite all the arguments and ways for attaining sustainability and/or smartness in mobility, improved access in urban areas by means of sustainable transport remains an essential goal. Therefore, the question remains- are the modernisation, building transport infrastructure, bus transit system, BRT or introduction of energy or congestion tax the answers to attain sustainable or smart mobility in the cities. If it is so, despite the systems available why many European countries are struggling to reduce carbon emission and worried about its impact on climate change and why cities like Stockholm and Delhi could not succeed in alleviating their mobility woes. The basic challenge is still the need of travel and how to meet this challenge. This calls for a new paradigm to see the mobility sector in a new and holistic way and create infrastructure and use the resources to reduce the need for unnecessary travel without compromising individual comfort and societal goals (Hitachi, no date; Smart mobility centre, 2014).

3. STUDY AREA

The study area considered for this investigation is Bloemfontein city of Free state in South Africa., which is located in the latitude of 29.133 and longitude of 26.214 and almost at the centre of the country. It is one of the growing medium sized cities in the country and the largest component of the newest Mangaung Metropolitan Municipality in South Africa. It functions as the provincial capital of Free State province as well as the judicial capital of the country because of the location of judicial Appellate and
Supreme Court of the country in the city. Besides, it is well known for its educational and health facilities in the central region of the country. The city is well connected to the each parts of the country by all the three modes of communication such as, road, rail and air. One of the International airports of the country is also located in the city connecting flights to major cities of South Africa and abroad. Also, it houses a number of regional centres of business corporate houses and professional institutions. Further, because of the availability of adequate basic urban infrastructure facilities including existence of transport and communication services, presence of skilled manpower and its proximity Johannesburg- the largest city of South Africa and Pretoria- the capital city of the country, it has attracted a number of domestic and multinational industrial companies. The presence of Information and Communication sector and internet is felt in the city as most of the area in the city is connected through ICT and a number of ICT companies are involved in the development process. However, the growth of industrial activities, influx of population and enhancement of tertiary (service related) functions are increasingly creating pressure on the urban infrastructures, particularly on the physical movement sector. The major transportation concerns in the study area are observed to be lack of public transportation, access to transport services, cost of fuel, accidents and traffic safety and quality of roads in certain parts of the city (Burger, 2012; Luke and Heyns, 2013). Further, it was observed that more than 40% of the people use personal vehicles, while about 35% of the people use shared taxis, whereas only 25% people use regulated public transportation system (Toba, Municipality, and Africa, 2012), which is a major cause of concern.

However, the location advantage of the city, it being part of the newest Metropolitan Municipality of the country, and availability of other facilities, such as, higher education, skilled competent human resources, health, etc., offer opportunities to develop it as an inter(nationally) competitive and smart city. Since smart mobility is one of essentials of a smart city, it was felt relevant that an assessment needs to be done to observe the challenges and potentials of the city and develop mechanisms for necessary policy paradigms to attain smart mobility in the city.

4. METHODOLOGY, DATA AND ANALYSIS

This investigation was carried by employing survey research methodology, discussion with people involved in the urban development process in South African cities and experts, review of the Integrated Development Plans (IDPs) and related documents (literature) for understanding the problems, indicators and factors, which contribute to the development of smart mobility in the city.

Data relating to relevant variables under various sectors influencing mobility in the city such as, demographic, economic, transportation and communication, governance, environment, and living conditions of the city, which would enable evaluation of the performance of the sectors, were collected both from primary and secondary sources. Primary data was collected through systematic stratified random sampling survey method by using pre-tested schedules at household level in selected six out of the 26 suburban areas including the central area of city representing various strata of the city. The household survey was conducted from a total number of 270 selected households (surveyed households varying from 40 to 50 households in each selected suburban area) by employing unstructured direct interview method in the year 2012.

Secondary data (statistical and time series data) were collected from authentic published and unpublished literatures, reports in addition to the review of IDP (2012) of the Mangaung Metropolitan Municipality, which is the Metropolitan administrative authority of Bloemfontein city. The data collected from secondary sources were found to be scanty and were utilised only to check the correctness and adequacy of primary data wherever possible.

The data collected from the primary survey was checked for its reliability through Cronbach’s α test and then analysed through descriptive statistics. The mathematical models based on cumulative
weighted average index principles was used to evaluate the performance of the indicators, factors and smart mobility characteristic indices of the city. The general mathematical model used is as follows:

\[ WI = \frac{\sum (w_i \times X_i)}{\sum X_i} \]

Where \( WI \) = General weighted index of a parameter.
\( w_i \) = index values assigned to each indicator/factor by the respondents.
\( X_i \) = Number of respondents favoured a value of the indicator/factor

The smart indices of the indicators, factors and mobility characteristic were measured in a rating scale of –3 to +3.

This quantitative performance evaluation was followed by evolving of qualitative SD model for smart mobility of the city based on the causal relations among the various factors and indicators influencing smart mobility of the city.

While developing the causal relationships, initially the variables such as, information, decision, action variables and influence on the environment (system) (Olaya, 2012), their causal relations were identified and their relevance to the SD model was checked\(^4\). The variables are then connected with simple one way causality (El Halabi, Doolan and Cardew-Hall, 2012; Veniix, 1996) with their influence and polarity. Once the one way causalities were established, the feedback relationships were checked and established. The constructed causal feedback diagrams were then discussed with the professionals and experts in the field of urban development and transportation to check their veracity. Relevant modifications with respect to the variable names, their polarity and causal relations as need be were made as per the expert judgment and then final conceptual model(s) were built. The discussions with the experts and professionals were conducted by use of semi structured interview process before developing the model(s) and while validating the causal relations in the model(s) and developing consequent mechanisms for policy interventions.

5. RESULTS AND DISCUSSION

The survey data analysis resulted that more that 87% of the respondents needs vehicular travel to perform their daily urban functions and more than 45% use their own (individual driven) vehicles for the purpose. The reasons for such phenomena are that majority of the people live in the suburban areas and most of the urban socio-economic and civic functions are located sporadically across the city. Only about 18% of the respondents regularly use regulated public transportation available in the city. The challenges associated with the public transportation in the city are fear of crime and safety (73%), inadequate (68%), lack of quality (67%), and accessibility (57%). This challenges act as major barriers against the effective use of public transportation system in the city.

It was also revealed that more than 55% of the people have access to computers and internet connectivity in any forms through computers, tablet computers or smart phones. Among the people having computers and internet access, majority of them (35%) particularly those who are involved in the service and professional activities, which does not require regular physical presence in the work places have said that they would prefer to work online rather than travel to work every day. So it is revealed that there is a clear need for travel in the city but the condition of public transportation and forces people to travel

\(^4\) It is not necessary that every causal feedback loop will contain all the three (information, decision and action) variables. However, a causal feedback relation must contain decision and environment.
by individual vehicles in the city. However, with effective use of ICT, the need for local travel is likely to be reduced.

In terms of inter (national) accessibility; it was revealed that only about 12% of the respondents use air travel from the city for both national and international travel. The city has an international airport but more than 40% believes it is underutilized. About 45% who travel abroad use their own vehicles to travel to the international airport in Johannesburg than using air travel from the city. The major reasons are obvious - the cost of travel and local accessibility to the air port. Concurrently, according to 63% of the respondents, the travel facilities by road to other cities or other parts of the country are very poor. This indicates that although the city is connected by road and air the national accessibility by road and international accessibility by air from the city is poor.

Further, the smart mobility of the city was evaluated based on the performance of the important factors, which influence smart mobility. The factors considered are local accessibility, (inter)national accessibility, sustainable, innovative and safe transport systems, and availability of ICT-infrastructure. The indicators under respective factors are public transport network per inhabitant, access to public transport, quality of public transport; air transport of passengers (national), air transport of passengers (international), air transport of freight; green mobility share, traffic safety, and use of economical cars; computers in households, and internet access. The high Cronbach’s α value against each indicator show that the data used are reliable and suitable for the evaluation. The evaluation revealed that that six of the indicators, i.e., transport network per inhabitant (-1.5), access to public transport (-1.5), quality of public transport (-2.0), green mobility share (-2.0), use of economical cars (-1.5) and air transport of freight (-1.3) have moderate to high negative values. On the contrary, air transport of passengers–international (1.3), air transport of passengers – national (1.1) traffic safety (1.2), and availability of computers in households (1.6) have moderate to relatively high positive indices. Internet access in households (0.5) has low index value. Consequently, the performance of mobility factors such as, local accessibility (-1.65) and sustainable, innovative and safe transport systems (-0.45) are fairly negative, whereas (Inter) national accessibility through physical movement (0.95) and availability of ICT-infrastructure (1.25) have low to moderate to moderate positive indices. Overall the smart mobility index of the city is found to be very low but positive (0.05). Thus, the survey results and the performance evaluation of the mobility parameters revealed that the city lacks in mobility from both local and international accessibility point of view, however, the overall positive smart mobility index indicates the availability of opportunities for development of smart mobility in the city.

Table 1 Smart Mobility, Indicators, Factors indices of the study area

<table>
<thead>
<tr>
<th>Smart mobility indicator</th>
<th>N</th>
<th>Cronbach’s α</th>
<th>SII</th>
<th>Standard Deviation</th>
<th>Smart mobility factor</th>
<th>SFI</th>
<th>Smart Mobility Index SMI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public transport network per inhabitant</td>
<td>270</td>
<td>0.94</td>
<td>-1.5</td>
<td>0.35</td>
<td>Local accessibility</td>
<td>-1.65</td>
<td>0.05</td>
</tr>
<tr>
<td>Access to public transport</td>
<td>268</td>
<td>0.92</td>
<td>-1.5</td>
<td>0.42</td>
<td>Public transport</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality of public transport</td>
<td>270</td>
<td>0.94</td>
<td>-2</td>
<td>0.43</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 5.1 Key causal relations and conceptual SD models

Before conceptualising the models and causal relations for attaining smart mobility in the city, an attempt was made to understand the current status of the mobility and causal relations of the parameters preventing smart mobility in the city. Figure 1 presents causal relationships among the mobility parameters in the current state in the city. In the current scenario, clearly there is higher need for local vehicular travel because of the requirement of daily urban functions (socio-economic activities) and lack of effective use of ICT. However, inadequacy of quality public transportation system causes more individual driven vehicles on the roads resulting high traffic volume, high carbon emissions and vehicular accidents, leading to unsustainable local transportation. Similarly, inadequate and high cost of air transportation, inadequate connectivity in terms of public transportation by roads to other parts of the country and lack of effective use of ICT also lead to low inter (national) accessibility & embeddedness. The unsustainable transportation and low inter (national) accessibility & embeddedness together make the city lack in smart mobility.
Therefore, looking at the current status, conceptual model(s) were developed based on the interlinkage and causal relationships among the parameters, which could influence smart mobility in the city. While developing the SD model(s), the smart mobility has been categorized into two significant elements, such as, physical movement at the local level and international accessibility through ICT system and international transportation system.

The conceptualisation for smart mobility is envisaged based on dynamic hypotheses or causal relations of the parameters influencing mobility in the Bloemfontein city. As observed from the survey, it is obvious that the urban functions particularly socio-economic and civic activities in the city necessitate travel needs. If quality and adequate public transportation is available then the need for local travel will positively influence public transportation and local accessibility will be strengthened. As a result it will also reinforce the urban functions through feedback causal loop R1 (Figure 2a).

Further, it is found that ICT infrastructure is available in the city to a certain extent and people are willing to use it for their socio-economic activity needs. So if the availability of ICT infrastructure is strengthened and they are used effectively, the local travel needs by vehicles will reduce. The reduction in travel needs along with the use of economical cars (cars with high carbon emission efficiency), carbon emissions in the city will be reduced leading to green mobility. Green mobility will strengthen
A sustainable and innovative transportation system. Further, sustainable and innovative transportation induced by both public transportation system and ICT use will reduce local travel needs as a feedback (loop R2a). Similarly, reduction in travel needs will reduce the traffic volume on the roads and consequently there will be enhancement in traffic safety leading to sustainable and safe transportation system (feedback loop R2b). Thus, the feedback loops R2a and R2b reinforce the sustainable, innovative and safe transportation in the city.

**Figure 2b Causal feedback loop for sustainable, innovative and safe transportation system**

The city has an international airport. It connects to most of the major cities of the country directly or indirectly providing accessibility at national level. It provides international accessibility to cities abroad through Jhannesburg, Durban or Cape Town international airports. However, according to the survey only about 12% use the air transportation because of high cost and accessibility challenges. Thus, if inter(national) flights are augmented then international accessibility will be strengthened and vice versa (feedback loop R3a). Simultaneously, the availability of ICT infrastructure through augmentation of computers and internet connectivity in households and their effective use will cause faster information transfer at the national and international level, thereby enhancing inter(national) accessibility & embeddedness (feedback loop R3b). Thus, augmentation of inter(national) flights enabling both transfer of people and freight, and effective use of ICT by the people through availability of ICT infrastructure at both city and household level will reinforce the inter(national) accessibility in the city (Figure 2c).

**Figure 2c Causal feedback loop for international accessibility in the city**
From the causal feedback relationships of the feedback loops R1, R2 (a and b) and R3 (a and b) it is observed that sustainable, innovative and safe transportation system will enable effective local physical accessibility; and availability and effective use of ICT infrastructure will reinforce international accessibility & embeddedness. Thus, as seen in the figure 2d, sustainable, innovative and safe transportation system and local accessibility through feedback loop R4a; and availability of ICT infrastructure and international accessibility through feedback loop R4b respectively will reinforce mobility of the city making it smart. Besides, as availability of ICT infrastructure and local accessibility are interwoven feedback loop R4c will reinforce both the loops R4a and R4b and consequently strengthening smart mobility in the city.

![Figure 2d Causal feedback loop for smart mobility in the city](image)

5.2 Validation of the causal relationships

The causal relations were validated by discussing with the experts and professionals involved in the city development and urban and regional transportation planning process. The causal relations were corrected and modified and adjusted according to their judgment and suggestions and their veracity was tested qualitatively through structure verification test so as them to depict the real world behaviour.

5.3 Mechanisms for development of policy interventions

It is seen that Bloemfontein city is severely lacked in its public transport system (public transport network per inhabitant, access to public transport, quality of public transport), green mobility, use of economical cars and air transport of freight (table 1). Further, although ICT infrastructure is available in the city to certain extent, it has higher necessity in order to provide higher inter (national) accessibility and reduce local transport needs. So policy interventions are needed in these aspects to attain smart mobility in the city.

The causal relationships or causal feedback loops are the dynamic hypotheses based on which the policy interventions can be developed. As seen from the causal relations discussed above there are four major dynamic hypotheses R1, R2 (R2a and R2b), R3 (R3a and R3c) and R4 (R4a, R4b and R4c). In fact the dynamic hypotheses R1, R2 and R3 lead to the final dynamic hypotheses R4. Therefore, policy interventions need to be developed based on these four hypotheses, which can work as the mechanisms for the development of policy interventions. Analysing the cause and effects derived from the causal relations, it is observed that smart mobility in the city can be attained by reinforcing local accessibility and availability of ICT Infrastructure. Local accessibility can be reinforced through provision of adequate quality public transportation as well as sustainable, innovative and safe transportation system.
ICT infrastructure will enhance inter (national) accessibility and reduce local transportation needs, which in turn increase traffic safety and reduction in carbon emissions. As a consequence of low carbon emission- green mobility, traffic safety, use of economical cars and access to public transportation, sustainable, innovative and safe transportation system can be achieved.

Further, the causal feedback relationships clearly show how the parameters influencing smart mobility of a city are interlinked in certain mechanisms, and how the mechanisms work. So, if any problem occurs at any stage of the mechanisms or any link is broken, it can be diagnosed easily and appropriate interventions can be taken to address the problem. The causal relations also show that if any one link in any one mechanism is broken or disturbed, not only it will influence the mechanism to which it belongs to but also its effects can be felt on the other mechanisms and even on the whole mobility system of the city. Therefore, the mechanisms based on the causal feedback relationships need to be clearly understood and used to evolve policy interventions to attain smart mobility in the city.

6. CONCLUSION

As envisaged by various scholars and seen from case studies from cities like Delhi and Stockholm, it was observed that modernisation, building transport infrastructure, bus transit system, BRT or introduction of energy or congestion tax as isolated efforts will not lead to smart mobility in a city. The experience of cities from Benelux counties of Europe provides ample examples that smart mobility can be achieved if the performance of the indicators and factors influencing mobility are enhanced through appropriate policy interventions over a long period of time. Thus, holistic approach is needed to meet the challenge.

Bloemfontein city in South Africa has several challenges to meet in order to attain smart mobility. This study examined the current status of the mobility and evaluated the performances of the factors and indicators, which influence the mobility of the city. Further, causal feedback relationships using SD modelling principles were developed by interlinking the variables influencing the mobility of the city.

It is observed that local accessibility (physical movement) in the form of adequate and quality public transportation, and inter (national) accessibility particularly through air transportation are the major challenges. Besides, although the city has certain ICT Infrastructure available, yet it has important role to play in order to redress the challenges related to local physical movement and international embeddedness.

The qualitative casual feedback relations developed by using SD modelling principles show that there are four major dynamic hypotheses as discussed above (R1, R2, R3 and R4), based on which smart mobility in the city can be developed. These dynamic hypotheses- causal feedback relations provide the mechanisms for evolving policy interventions to attain smart mobility in the city. It is also seen that the mechanisms will not only able to assist in developing policy interventions but also able to diagnose the challenges adequately enabling appropriate interventions as and when the need arises.

The study has its limitations. The major limitation is that the causal feedback relationships were done qualitatively, although the basic premise behind it was to see how the variables are interlinked and how the mechanisms work. However, there is a need for the quantitative modelling to examine the extent to which the various variables influence the smart mobility of the city as well as their influence on the socio-economic and environment characteristics of the city, which provides further scope to this research. However, despite its limitations, this study can assist urban and transport planners and decision makers to analyse and diagnose the challenges of smart mobility in a city as well as to develop mechanisms based on which policy interventions can be evolved to achieve smart mobility in a city.
7. REFERENCES


Hitachi (no date). Smart Mobility for Smart Cities, (www.hitachi.com).


Huwer, U. 2000. Let’s bike – The 10 point pedalling action programme to support cycling. World Transport Policy & Practice, 6, 40–45.


Smart Mobility Centre. 2014. Spotlight on your Mobility Solutions (www.intertraffic.com).


Toyota 2014. Road to Grenoble, Report on introduction of Toyota i-Road in Japan.


Streets as Great Public Places in Tshwane: the Influence of Connectivity

Darren Nel¹, Karina Landman²

¹Assistant Lecturer, ²Associate Professor
Department of Town and Regional Planning, University of Pretoria
Private Bag X20, Hatfield, 0028, South Africa
Tel: +27 (0)12 420 3531 / Fax: +27 (0)12 420 3537
¹Email: darren.nel@up.ac.za, ²Email: karina.landman@up.ac.za

Abstract

Great places can include a range of places from large metropoles and cities to small squares and streets. This paper will focus on streets as public spaces and investigate some of the key issues that are likely to influence whether streets have become or are likely to become great places. An increasing number of studies are starting to show how the nature and use of streets can be influenced by the level of connectivity of a particular street. For example, most historical cities increased their complexity and connectivity as they grew, whereas in the Modernist City the opposite happened with an oversimplification of its morphology and a reduction of connectivity. This invariably had an influence on the activities and quality of the street and on its ability to be or become a great place. In addition, it has been indicated that the connections are the most fundamental element of creating a living, sustainable and more resilient city. When these connections are destroyed, it has a huge impact on the form and function of neighbourhoods and cities and in particular on the quality of a particular street. City plans offer valuable indicators of the type and level of connectivity, by looking at the role of the street and the intersections. This paper investigates the influence of connectivity on the making of great places and specifically streets as great public places in South Africa and particularly in the City of Tshwane. This is done by comparing four streets/roads and their levels of connectivity and then how this relates to their possible resilience, which will have an impact on whether they have become “great places” or not. This paper found that the level of connectivity differed greatly between the streets. Some of the streets were so disconnected that it inhibited the robustness of the street system against failure and did not accommodate different modes of movement, in particular pedestrians. In this way, these disconnected streets have a negative influence on urban resilience and therefore do not contribute to the making of great streets in the City of Tshwane.

Keywords: Great public places, great streets, streets as public places, City of Tshwane, connectivity.

1. INTRODUCTION

Great places can include a range of places from large metropoles and cities to small squares and streets. “Great streets are those that are markedly superior in character and quality” (Jacobs 1993:3), places that are “the terrain of social encounters and political protest, sites of domination and resistance, places of pleasure and anxiety” (Fife 1998:1). Great streets are also those places that, although they had to adapt to changing circumstances over the years, managed to sustain their greatness to some extent. However, not all streets in cities are great places. This raises the question of what the aspects are that would influence the greatness of streets within the urban environment.

An increasing number of studies are starting to show how the nature and use of streets can be influenced by the level of connectivity of a particular street. For example, most historical cities increased their connectivity as they grew, whereas in the Modernist City the opposite happened with an oversimplification of its morphology and a reduction of connectivity. This invariably had an influence on
the function and quality of the street and on its ability to be or become a great place. In addition, it has been indicated that the connections are the most fundamental element of creating a living, sustainable and more resilient city. When these connections are destroyed, it has a huge impact on the form and function of neighbourhoods and cities and in particular on the quality of a specific street. City plans offer valuable indicators of the type and level of connectivity, by looking at the role of the street and the intersections.

Although a few studies have been carried out internationally in this regard, almost nothing has been done on this in South Africa, with the exception of some older, more theoretical work in the 1990s conducted at the University of Cape Town and more recent work being carried out at the University of Pretoria. This paper will investigate the influence of connectivity on the making of great places and specifically streets as great public places in South Africa and particularly in the City of Tshwane. The first part of the paper will argue how important streets are for a well-functioning city, provided that these streets have a number of characteristics or components. One of these characteristics is connectivity. The second part of the paper will then compare four streets in the City of Tshwane in terms of a few indicators for connectivity and discuss the implications thereof for greater urban resilience and the making of great places. This will then allow one to also reflect on lessons for the layout and design of future streets in South Africa.

2. LITERATURE REVIEW

According to the literature one should distinguish between a road and a street. A road can broadly refer to the act of movement, for example riding on horseback or for travellers on foot or vehicles. It is therefore “any path, way or course to some end or journey” (Moughton and Mertens 2003:129). The emphasis is on movement between two places. The street may have some of these attributes, but it also refers to the physical context, the linear surface between buildings on which movement occurs. In this sense, streets can be defined “as an enclosed, three-dimensional space between two lines of adjacent buildings” (Moughton and Mertens 2003:129). The emphasis is thus on the quality as well.

2.1 Reconsidering the significance of streets as great public places

Streets are a very important component of cities. According to Jane Jacobs, “Streets and their sidewalks, the main public places of a city, are its most vital organs. Think of a city and what comes to mind? Its streets. If a city’s streets look interesting, the city looks interesting; if they look dull, the city looks dull” (1961:39).

According to Allan Jacobs (1993) streets are more than public utilities, including water lines, sewers and electric cables. The major purpose of the street remains that of communication and public access to property. Therefore, streets allow people to be outside, being a place of connection, but also places of social and commercial encounter and exchange (Jacobs 1993:3-4). For example, the boulevards of Haussmann in Paris had an important economic function in helping to quicken the pace of commerce, while socially providing employment to large numbers of working-class people (Ellin 1997:18-19). Yet, in the beginning of the twentieth century the role of the street was transformed by the Modernists and reduced to primarily that of movement (Ellin 1997), where the street became a space “from which to get from A to B, rather than a place to live in” (Lash and Friedmann 1992:10). In this context, the street was to be viewed as a “machine for traffic” to be used exclusively by fast-moving vehicles, with no provision for pedestrians or building fronts. The movement channels in Brasilia, for example, cannot be regarded as streets. In its place are high-speed avenues and residential cul-de-sacs, spaces that undermine particular forms of social and political life (Fife 1998). Therefore, as noted by Holsten (1989) Brasilia is a city without “street corner societies”, as there are no street corners and no streets functioning as public places. In reaction, there has been a renewed call for streets to be more than movement channels. For postmodernists the street is a place designed to foster and compliment new urban lifestyles and be a lifeworld (Fife 1998). All over the world
people are reclaiming streets as public spaces, while planners and designers are working on their recovery to be used by communities and places for social engagement (UN Habitat 2013).

2.2 Requirements of great streets

Before looking at the detailed components of great streets, it is useful to pause and consider what qualities or performance criteria are required for great streets. According to Jacobs, there are a number of qualities that are necessary. However, offering these qualities alone as in a checklist, will not give rise to great streets. It is the ‘magic of design’, putting them together as a whole in a specific context, that would lead to it and the possibilities for doing this are endless. Nevertheless, the qualities offer a useful guideline. They include: places for people to walk with some leisure, physical comfort, definition, features to engage the eyes, transparency between inside and outside, complementarity in terms of buildings and uses, maintenance and quality of construction and materials (Jacobs 1993: 270-292). A good street pattern should therefore support infrastructure development, environmental sustainability, quality of life and equity/social exclusion (UN Habitat 2013: iv).

2.3 Components of great streets

In order to achieve these requirements for great streets, a few things continuously stand out. Following from this, it is possible to summarise the main components and broad indicators for successful or great streets. These components are connectivity, activity and quality. “The life of a city comes from its connectivity” (Salat 2011:221). Connections are so fundamental for establishing a human society that by destroying them can lead to a destruction of the society and its traditions. In terms of everyday use, connections are the heart and the very essence of a city. Connectivity therefore also underpins the development of all human societies as society and its organisation is highly dependent on the way in which people interact. This interaction is partly structured by the street network (Salat 2011:213).

Related to streets, “activity is important for its vitality and, therefore, also for visual attraction” (Moughton and Mertens 2003:87). According to Schumacher, there a number of things that influence the street use, namely user density, land use mix, pedestrian-vehicular interaction, configuration and context (cited in Moughton and Mertens 2003).

Activities in streets are also influenced by the built or urban form. “The interplay of human activity with the physical place has an enormous amount to do with the greatness of a street” (Jacobs 1993:6) and it is therefore difficult to separate the two (Ibid). The configuration of the street, including the length, form and proportion plays an important role in this regard. The quality of the street is therefore influenced by the form, which can be analysed in a number of ways, including whether it is long or short, wide or narrow, enclosed or open, straight or curved (Moughton and Mertens 2003:133). “A city (or neighbourhood) can have wide streets in a very limited street network and low intersection density, which does not always imply high connectivity. For example, a lengthy network and dense intersections on very narrow streets do not also promote high connectivity” (UN-Habitat 2013b:43). What is important though is that the street is both path and place; therefore a space for movement and for rest (Moughton and Mertens 2003).

It is therefore important that these three components work together to create the possibilities for great streets to develop over time. However, due to the limited scope of this paper, it will only focus on one of these components, namely connectivity and its implications for urban resilience and therefore the making of great places.

2.4 The various aspects of connectivity
The street provides the link between buildings, within a particular street and also in the larger city. In this way it facilitates the movement of people as pedestrians and in vehicles, but also the movement of goods to sustain the wider market (Moughton and Mertens 2003:131). In the history of cities, successful urban development has been facilitated by an organised layout pattern and a system of interconnected streets. Since the earliest cities, streets performed an important role to connect spaces, people and goods, and thus facilitating commerce, social interaction and mobility (UN Habitat 2013: iii). Great streets are those that are accessible to all, easy to find and easy to get to (Jacobs 1993:8).

City plans offer valuable indicators of the type and level of connectivity, by looking at the role of the street and the intersections (Marshal 2005; Cardillo et al 2006; Salat 2012). If intersections are placed too far apart then it becomes difficult for pedestrians to move within and along the street (Behrens and Watson, 1996; Frank et al., 2006; UN-Habitat, 2013a). The street is a series of connected places and therefore according to Lynch, the liveability of the street is enhanced if there are nodes or small places at intervals of 200 to 300m (Cited in Moughton and Mertens 2003). These places can become intersections for different modes of movement.

Connectivity of a network can be measured by examining the number of links and nodes, the distances between them and their configuration. The higher the density of intersections within a network or along a given path the better connected the neighbourhood or path is and the more likely that the distances between the intersections will be shorter and the more walkable the neighbourhood or route will be (Berryman et al., 2011; Calgary Regional Partnership, 2011; Salat, 2011; UN-Habitat, 2013b). The methods used to further describe will be discussed in the sections bellow.

In addition to considering the densities of intersections it is also important to consider the type and nature of the intersections. Marshall (2005) outlines that when considering the connectivity of a network that the configurations of the intersections are an important consideration. Marshall simplifies the types of intersections into three main types. Shown in Figure 1 the three main types of intersections are X-junctions (Figure 1.a.), T-junctions (Figure 1.b.) and cul-de-sac’s (Figure 1.c.). For this study only first two will be considered. The configuration and number/proportion of these three intersection types in addition to the densities of intersections determine the connectivity of network or path. By this we mean that although an area can have a high intersection density it can still be disconnected due to the configuration of its intersections.

Marshall (2005: 107) argues that “Whatever else we say about urban patterns, we can recognise that a street pattern comprises elemental parts – streets. These relate fundamentally to paths of movement: if there is no movement, there is no street. The character of a whole street pattern will relate to the characteristics of those parts, and the way they fit together”. Marshall goes on to suggest a route structure analysis can be used to “represent, analyse and characterise streets and street patterns” (Marshall 2005:107 - 108).
According to Marshall (2005: 115) a route can be seen as a section of a path (road or street) that can continue through intersections that contain other routes (see Figure 2). The route analysis looks at three components. They are connectivity, continuity and depth. Connectivity is the number of roads that are connected by the given route. Continuity refers to the number of intersections that the route goes through. So the more intersections that it goes through the more continuous the route is. Depth measures how ‘far’ a route is from a particular datum or reference route. It is in essence an indicator of where that route falls within the hierarchy of the given network (Figure 3). By considering these three parameters Marshall (2005: 124) identifies seven different route types. These can be seen in Table 1 below.

Table 2: Various route types. Marshall (2005: 124)

<table>
<thead>
<tr>
<th>Route type</th>
<th>Structural description</th>
<th>Typical street network role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stem</td>
<td>Intermediate junctions are three-way</td>
<td>Varied, including conventional distributory networks; (Also boundary routes to grid networks.)</td>
</tr>
<tr>
<td>Spine</td>
<td>Intermediate junctions are four-way</td>
<td>Traditional connective grid networks; A spine is often the main road, locally or otherwise</td>
</tr>
<tr>
<td>Corridor</td>
<td>Both ends are pendent (usually both are externally connecting)</td>
<td>Typically the datum or main through route of a network</td>
</tr>
<tr>
<td>Cantilever</td>
<td>One end is a three-way junction, the other is free</td>
<td>Typical of suburban ‘cul-de-sac’ networks</td>
</tr>
<tr>
<td>Collector</td>
<td>All junctions are three-way</td>
<td>Typical of networks of suburban distributors connected by poorly junctions</td>
</tr>
<tr>
<td>Connector</td>
<td>All junctions are four-way</td>
<td>Typical of traditional grid networks</td>
</tr>
<tr>
<td>Cross-connector</td>
<td>A short, deep connecting street which, due to its depth and relative discontinuity, would have a high value of relative connectivity</td>
<td>Found in interior of grid networks</td>
</tr>
</tbody>
</table>

2.5 The influence of connectivity on urban resilience and sustainability

Resilience can then be defined as the ability of a [urban] system to move through periods of episodic change (prompted by an external disturbance or increased internal rigidity) without crossing a threshold into a different stability regime (and thus losing functional identity). (1) The resilience of a system, by definition, also determines the vulnerability of a system to “unexpected disturbances and surprise” (Holling and Gunderson, 2002:51). In other words, resilience refers to the amount of change a system can experience before shifting to an alternative state with different structural and functional properties. Urban resilience is therefore concerned with the dynamics within cities and their relationships to the different sub-systems that constitute the whole and particularly the distance between the existing urban system’s state and the critical threshold that would force a collapse and total transformation of the existing system (Resilience Alliance 2010).

Salat (2012:65) argues that “urban resilience can be understood as the robustness of urban structures and networks against random failures”. These failures may occur at a small scale, for example the disruption of local transport networks or energy supply, or at a larger scale (Ibid). The likelihood of these disruptions is influenced by the urban form. In the 1960s Alexander
introduced the idea that cities may reflect either a lattice - a typical tree-like structure in which no overlaps occur - or a semi-lattice containing overlapping units. He argued that the city should not resemble a tree, but needs to be a semi-lattice that allows for a social structure that is filled with overlaps (Alexander 1965). Salat (2011; 2012) takes this argument further and refers to these two paradigms as cities that resemble trees and those that are more like leaves, with the key difference that the one is open and the other closed. Trees are completely disconnected at a given scale and therefore moving from one twig to another, even if they are close, will mean going down one branch and up another to connect. Leaves on the other hand are connected on intermediate scales. So although the veins are disconnected at the two larger scales, they are entirely connected at the following three scales before presenting small tree-like structures on the finest capillary scales. Cities that resemble leaves are argued to be more resilient as they reflect fractal structures, are multi-connected and complex on all scales (Salat 2011:17).

As mentioned before, the historical city increased its complexity and connectivity as it grew, whereas in the Modernist City the opposite happened with an over-simplification of its morphology and a reduction of connectivity. An analysis of resilience need to look at form, function and connectivity and of these. Yet, the connections are the most fundamental element of creating a living and sustainable city. When these connections are destroyed, as happened in the last 30 years of city-building, a huge anti-urban product follows (Salat 2012). The resilience of a network can be understood through the level of fragmentation of the structure as related to the growing amount of fraction that occurs due to the removal of nodes (Buhl et al 2004), which relates back to the level of connectivity. A multiplicity of connections enhances resilience, which is further strengthened if these are connected in diverse ways and at a variety of scales and hierarchies. This contributes to the adaptive capacity of the structure and physical system and its ability to deal with fluctuations and perturbations, which in turn enables greater self-organisation (Salat 2012).

3. OBJECTIVES

The objective of this paper is therefore to understand to what extent connectivity influences the nature and characteristics of different types of streets in the City of Tshwane and therefore the making of great streets that would contribute to urban resilience and sustainability.

4. APPROACH & METHODOLOGY

The study utilises predominantly a quantitative approach and uses GIS to analyse the different levels of connectivity between four streets in the City of Tshwane. To carry out an analysis of the streets a mixture of qualitative and quantitative data and analysis has been used, however, the majority of the analysis has been quantitative. This is due to the limitations discussed later. The quantitative data (geospatial data) has been sourced from the City of Tshwane, OpenStreetMap as well as from Statistics South Africa. The analysis consisted of using various GIS analysis tools as well as the various other techniques, the latter to be discussed in the next section.

The paper also forms part of two NRF projects, one which focuses on the Resilience of Aspirational African cities and one that investigates the transformation of public spaces in South Africa. Both of these have as their study area and focus the City of Tshwane.

Three basic criteria were used to select the streets. The criteria being that (1) they should have some form of commercial land use; (2) should be or be part of a connector road (main or provincial road) and (3) the route must have (or have had) some residential land use along it. In addition to these criteria the routes were also selected to help illustrate different qualities or (dis)qualities of different routes within the City of Tshwane.

The four routes that were used are Atterbury Rd (M11) – Between the N1 and Solomon Mahlangu Drive (formerly Hans Strydom); Helen Joseph/ Stanza Bopape (R104) – Formerly Church Street; Lois Avenue...
and lastly a route that is located in Brooklyn and Hatfield and is comprised of Bronkhorst St., Middle/Jan Shoba St (Formerly Duncan Street) and Burnett St. This mixture of the different streets was done to show a mixture of some of the elements to be discussed along a single path. The locations of these routes can be seen in Figure 4 below. The routes lengths are between 5.3 and 3.6 km in length.

![Figure 4: Location of case study streets within the City of Tshwane](image)

As discussed connectivity can be looked at in several ways. Following is a number of indicators that was used to analyse the four roads/streets. However, before the indicators are described a brief note on the language. The two main components of any network are nodes and links (Berryman et al. 2011; Marshall 2005; Salat 2011; UN-Habitat 2013b). In the case of this study nodes will be considered as road intersections or junctions and links can be seen as the parts of the roads that fall between intersections. While a route can be seen as comprising of one or more links (Marshall 2005).

Table 2 below lists and describes the various indicators for connectivity that have been used for this study.

Table 3: List and description of indicators used to measure connectivity

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route Intersection Density</td>
<td>This measures the number of intersections per one km of road</td>
</tr>
<tr>
<td>Route Links Density</td>
<td>This measures the number of links per one km of road</td>
</tr>
<tr>
<td>Ave distance between intersections (m)</td>
<td>The mean distance between intersections on a given route</td>
</tr>
</tbody>
</table>
X-Junctions Ratio  This measures the proportion intersections that are X-
junctions along a given route. It is given in the % of
intersections.

T-Junctions Ratio  This measures the proportion intersections that are T-
junctions along a given route. It is given in the % of
intersections.

Continuity  The number of links that the route is made up of

Relative continuity  The continuity of a given route when compared to
another/other routes

Connectivity  This is the number of streets that a given route
connects

Relative connectivity  The connectivity of a given route when compared to
another/other routes

Depth  The distance of that route from a particular ‘datum’ or
target street. One can also use, for example, the
given road hierarchy of a particular municipality

Relative Depth  The depth of a given route when compared to
another/other routes

Relative Depth  The depth of a given route when compared to
another/other routes

Source: Berryman et al. 2011; Calgary Regional Partnership 2011; Marshall 2005; Salat 2011; UN-Habitat 2013b).

5. RESEARCH ANALYSIS & FINDINGS

5.1. Context

The four routes that were used are Atterbury Rd (M11) – Between the N1 and Solomon Mahlangu Drive
(formerly Hans Strydom); Helen Joseph/ Stanza Bopape (R104) – formerly Church Street; Lois Avenue
and lastly a route that is located in Brooklyn and Hatfield and is comprised of Bronkhorst St., Middle/
Jan Shoba St (Formerly Duncan Street) and Burnett St.

Atterbury Road is a rapid transport route with two lanes in each direction. Although the actual land use
tends to differ in places from the zoning, it is evident from the map (Figure 5) that the area next to the
road is zoned for a mixture of business, residential and special uses. The residential properties are,
however, turned away from the road and accessed via smaller roads on the opposite side. Consequently
the road is bordered by many walls or fences at the back of the residential properties.
Helen Joseph/Stanza Bopape (formerly Church Street) (Figure 6) also has two lanes in both directions. A short section towards the west next to Church Square has been changed into a pedestrian...
walkway recently. Being an older road in the CBD, the road is much more defined and enclosed on both sides, with residences and businesses towards the east.

Lois Avenue is located in a newer suburban area and only has one lane in each direction for most of the way. The street is primarily bounded by suburban houses that are further away from the street, however, still being accessed from Lois Avenue. There is also a small centre with business uses and a municipal office at the southern side, with a number of green spaces in between (Figure 7).

Figure 7: Zoning map of the Atterbury Road selection used as study area

Bronkhorst St., Middle/Jan Shoba St (formerly Duncan Street) and Burnett St. is located in older, well-established neighbourhoods close to the inner city and the University of Pretoria. While Bronkhorst Street only has one lane in both directions, Duncan Street has two. Burnett Street is a one-way street, only accommodating traffic moving east. The study selection is zoned for a number of uses including residential, business and educational, with a few green spaces in between (Figure 8).
Following are the findings for the various streets/roads as analysed using the indicators discussed before.

5.2. Levels of connectivity

Looking at the column for Brooklyn in Table 3 a differentiation has been made at some points with a ‘before’ and ‘after’ annotation. This annotation refers to a change along the route that had an impact on the way in which one may approach the study of the connectivity along the street. Over the last few years the part of the route that goes along Jan Shoba Street (formerly Duncan Street) has undergone some changes. The road has had a median or ‘middle man’ placed along it, see Figure 9 for an illustration. This has essentially converted the intersections from X-junctions (Figure 9(a)) to a series of T-junctions with Jan Shoba being the main route going through the intersections. This raises the question on how one should approach this particular section of the route. Should (1) we simply continue to see it as X-junction (Figure 9(b)), as the provided data from the municipality would suggest and since
pedestrians can still cross the road (although it is made more difficult and dangerous, and assuming that the differentiation between the pedestrian and motorised movement has not been made? Should (2) the intersections that join along the route be counted as one T-junction (Figure 9(c)). The parts for Brooklyn in Table 3 that are titled ‘after T-1’ refer to this scenario. Lastly, (3) should each T-junction along the route be counted as a separate intersection (Figure 9(d))? The last possibility has been created because in this scenario we can think of Jan Shoba St as two separate one-way routes (Figure 9(d)) [The parts for Brooklyn in Table 3 that are titled ‘after T-2’ refer to this alternative scenario]? And that each route creates a T-junction with each of the perpendicular streets that it crosses, as these streets cannot continue over Jan Shoba. These questions need to be further researched as the answers; as will be shown; will have an impact on the result of the connectivity.

Starting from the top of Table 3 the length of each route was given with Atterbury being the longest while the shortest route is that of Brooklyn. Because these routes are of different lengths and will therefore have varying numbers of intersections and links for this analysis where ever possible the comparison between the streets was done by comparing the streets to each other as a ratio, percentage or per km of road. This has been done to minimise the discrepancies that may occur due to the difference in route length.

A node or intersection is the point at which two or more links meet or cross (Calgary Regional Partnership 2011). Links on the other hand are the parts of a network that connect various nodes. They are the part of the street that are between intersections and where the longest distances are travelled (Victoria Transport Policy Institute 2014). The density of intersections and links reflects the number of intersections per kilometre of the route. It is calculated by dividing the number of intersections by the length of the route (in km) to give you the number of nodes/links per km. It is ideal to have a higher number of nodes per km as this means that the route better connected to other routes. Additionally the higher the number of intersections the more choice a user has and the more walkable the route is likely to be as the increased number of intersections “increases the number of possible ways [available] and reduces the distances to go from one point to another, since the traveller’s journey is closer to a diagonal” (Bourdíc et al. 2012: 599).

Considering the four routes that have been selected it is clear to see that Brooklyn (After T-2) performs the best according to this measure. However, as discussed above, this is due to the fact that on a proportion of the route along Jan Shoba St some of the intersections have been counted twice. If we remove this fact from the interpretation of this particular part of the analysis Helen Joseph/ Stanza Bopape St and Lois Ave perform the best with a score of 8.3 and 8.2 nodes per km, respectively, while Atterbury performs the worst by far with a score of 3 nodes per km. What this means is that while Helen Joseph/ Stanza Bopape St and Lois Ave connect to many other streets along their lengths, making them much more connected by this standard. Atterbury Rd on the other hand is very disconnected and only links to a few other streets. This means that it is much more difficult to get to Atterbury as you can only get to it from a limited number of streets. Additionally, this will also place extra traffic onto Atterbury as the low intersection density reduces the availability of choice, which has an impact on the diversity and redundancy of the road network which will ultimately affect the resilience of the road network (Salat and Bourdic 2012).
Table 4: The results for case studies based on the indicators for connectivity

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Atterbury</th>
<th>Brooklyn</th>
<th>Helen Joseph/ Stanza Bopape</th>
<th>Lois</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route length (km)</td>
<td>5.3</td>
<td>3.6</td>
<td>4.1</td>
<td>4.8</td>
</tr>
<tr>
<td>Nodes</td>
<td>16</td>
<td>Before</td>
<td>After (T-2)</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>26</td>
<td>34</td>
<td>35</td>
<td>40</td>
</tr>
<tr>
<td>Links</td>
<td>17</td>
<td>27</td>
<td>35</td>
<td>40</td>
</tr>
<tr>
<td>Nodes per km of road</td>
<td>3.0</td>
<td>7.2</td>
<td>9.4</td>
<td>8.3</td>
</tr>
<tr>
<td>Links per km of road</td>
<td>3.2</td>
<td>7.5</td>
<td>8.5</td>
<td>8.4</td>
</tr>
<tr>
<td>Ave distance between intersections (m)</td>
<td>529</td>
<td>179</td>
<td>142</td>
<td>132</td>
</tr>
</tbody>
</table>

**Intersection Types**

<table>
<thead>
<tr>
<th>Types</th>
<th>Before</th>
<th>After (T-1)</th>
<th>After (T-2)</th>
<th>Before</th>
</tr>
</thead>
<tbody>
<tr>
<td>X-Junctions</td>
<td>8</td>
<td>21</td>
<td>13</td>
<td>11</td>
</tr>
<tr>
<td>X-Junctions Ratio (%)</td>
<td>50</td>
<td>81</td>
<td>50</td>
<td>32</td>
</tr>
<tr>
<td>T-Junctions</td>
<td>8</td>
<td>5</td>
<td>13</td>
<td>21</td>
</tr>
<tr>
<td>T-Junctions Ratio (%)</td>
<td>50</td>
<td>19</td>
<td>50</td>
<td>62</td>
</tr>
<tr>
<td>T-Junctions (Of which are pedestrian)</td>
<td>0</td>
<td>2</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>Continuity</td>
<td>17</td>
<td>26</td>
<td>34</td>
<td>35</td>
</tr>
<tr>
<td>Relative continuity</td>
<td>39</td>
<td>68</td>
<td>87</td>
<td>100</td>
</tr>
<tr>
<td>Connectivity</td>
<td>16</td>
<td>26</td>
<td>34</td>
<td>35</td>
</tr>
<tr>
<td>Relative connectivity</td>
<td>41</td>
<td>67</td>
<td>87</td>
<td>100</td>
</tr>
<tr>
<td>Depth</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Relative Depth</td>
<td>25</td>
<td>75</td>
<td>75</td>
<td>50</td>
</tr>
</tbody>
</table>

Linked to the densities of intersections is the distance between intersections. According to Bourdic et al. (2012: 599) “The average distance between intersections is also a proxy of how pedestrian-friendly a city is. It ultimately determines the distances to be crossed and the sense of whether or not it is possible to walk to one’s destination”. Salat (2011) and Bourdic et al. (2012) argue that the distance between intersections should ideally be less than 100m in order of for a street or street network to be considered walkable. None of the streets that have been used fall under the 100m distance. Thus we can argue that because these streets have such long distances between intersections they are more likely to be used by cars than by pedestrians. Atterbury appears to be an extreme example of this as the average distance between the intersections along this route is 529m. This is far longer than the car originated Brasilia (Holsten 1989) average distance between intersections of 400m (Bourdic et al. 2012:600).
Although it is important to consider the densities of intersections it is also important to look at the type of intersections and then the densities of each type. By this we mean that a street can have many intersections yet due to the type of intersection it can still be seen as disconnected. This is done by looking at the three basic types of intersections (X-junctions, T-junctions and Cul-de-sac), as described previously. For this study only X-junctions and T-junctions will be considered as we are only evaluating a single, continuous section of road within a street network. X-junctions are the most connective type of intersection as it joins four links together. However as Sitte, cited in Marshall (2005:38), illustrates X-junctions have more points of conflict (i.e. there is a greater chance for accidents) than T-junctions. Because of this fact T-junctions are thus favoured by transportation engineers (Ibid).

An ideal example of why the difference between X-junctions and T-junctions is an important distinction to make when looking at connectivity of a street, and why we cannot just look at the number of intersections alone, is if we take the case of Brooklyn before and after the placement of the median that divided the road (See Figure 10. While the number of intersections increased from 26 to 34 after the placement of the median along Jan Shoba (due to the conversion of X-junctions into two T-junctions, See Figure 11 for an example) the section of the route can be seen as creating or rather breaking the connectivity of the network that it moves through as it now disallows the streets that run perpendicular to it cross over it.

A similar thing is the result if we look at Lois Ave. Although it has the second highest intersection density of the examples provided it has a very high ratio of T-junctions (82% of the intersections along the route are made up of T-junctions). In a somewhat contrasting manner Atterbury has a balanced ratio of X and T-junctions (50% of each) however it has a very low intersection density which means that it is still considered a disconnected street. The Brooklyn route (before the median) and Helen Joseph/Stanza Bopape St have a far better mix of intersection density and X and T-junctions making them the better overall connected streets.

Figure 10: Shows the section of the Brooklyn route along Jan Shoba. (a) Shows and example of how, before the inclusion of the median (indicated by the grey line in (b) how the street consisted of X-junctions while (b) shows how the X-junctions have been converted to T-junctions while doubling the number of intersections along the route.

Figure 11: Route types according to their locations on the on the routegram as defined by Marshall (2005:129)
As discussed previously, a route analysis consists of three components; connectivity, continuity and depth. In order for the analysis to have any meaning our case studies need to be compared to each other against these three components. To do this the relative connectivity, continuity and depth of the streets to each other has been calculated and can be displayed as a ‘Routegram’ (Figure 11) - see Marshall (2005: 107 - 131) for more detail on this. Depending on the location of the particular street on the routegram it can be described as one of seven possible route type (Marshall 2005:124-129). These types being: stem; spine; corridor; cantilever; collector; connector and cross-connector. Each of these types has its own set of structural characteristics (see Table 1). From the routegram (Figure 12 and Table 4) we can see that the four streets can be characterised by different route types. What this means is that based on the given parameters of connectivity, continuity and depth these streets are expected to perform different functions. However, some of these functions do not promote connectivity.

Table 5: Description of the route types for the case study streets.

<table>
<thead>
<tr>
<th>Street/Route</th>
<th>Route type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atterbury</td>
<td>Collector</td>
</tr>
<tr>
<td>Brooklyn (1)</td>
<td>Cantilever</td>
</tr>
<tr>
<td>Brooklyn (2)</td>
<td>Collector/Connector</td>
</tr>
<tr>
<td>Helen Joseph/ Stanza Bopape (HJ/SB)</td>
<td>Stem</td>
</tr>
<tr>
<td>Lois</td>
<td>Collector/Cantilever</td>
</tr>
</tbody>
</table>

5.3. Implications for urban resilience and the making of great places

As mentioned before, urban resilience can be understood as the robustness of urban structures or networks, such as street networks and particular streets, against failure (Salat 2012). The findings have indicated that some of the roads or streets are more connected than others, based on the number of intersections and distance between intersections per kilometre. Those that are more connected contributed to the creation of a typical leave like structure, while those that are very disconnected resemble a tree structure. As mentioned, street networks that are more like leaves are more resilient, as they are multi-connected. One of the consequences is that these tend to be more robust against failures in the system as they have greater adaptive capacity, another key criteria for resilience. If, for example, an accident occurs along Atterbury Road or the street lights fail, it causes major traffic congestion and delays as there are little alternative routes to take and because the intersections leading to these alternative roads are far apart. These delays vary between half an hour to an hour in some severe cases. However, if an accident occurs along the Brooklyn/Hatfield road selection or Helen Joseph/Stanza Bopape, resembling more of a leaf structure, there are many alternative roads to take at shorter intervals to each other.
The robustness of the system can also be linked to the opportunity to make use of alternative modes of movement. High levels of connectivity, facilitated by shorter intervals between intersections and therefore a larger number of intersections per street, also facilitate greater pedestrian movement. Again, it will be easier for pedestrians to walk in the other roads as discussed previously. It however becomes very difficult and even dangerous at some points to walk along Atterbury Road. Also due to the length between the intersections pedestrians are forced to cross midway between these in between fast moving vehicles. Given this, the low level of connectivity of many streets in the City of Tshwane has a negative influence on the resilience of these movement routes as they inhibit the robustness of the system to cope with failures in the system and the robustness to cater for different modes of movement, in particular pedestrians. Furthermore, as great streets are characterised by high levels of connectivity and accessibility, allowing opportunities for pedestrians to interact, streets with low levels of connectivity will also have a detrimental impact for the creation of great streets and places in South African cities.

6. RESEARCH CONTRIBUTION

The primary contribution of this paper is to have indicated how the levels of connectivity can influence the resilience of a particular road or street in Tshwane and through this have a negative impact on the creation of great streets and places. Although some studies around the impact of morphology and particular street patterns on urban resilience have been carried out internationally (for example Salat 2011), this has not yet been done within the South African context. Finally, this paper has also started to point towards a link between aspects that contribute to the creation of urban resilience and the making of great streets and places.

In addition, the paper has also raised many questions regarding the indicators and the application of these indicators in the study of the levels of connectivity that would add to the refinement of studies around urban morphology and the impact on urban resilience and the making of great places. The main question relates to how a road with a median/‘middle man’ should be interpreted, i.e. 1) as an X-junction; 2) as one combined T-junction or 3) as two T-junction.

7. CONCLUDING REMARKS

This paper has focussed on four different roads and streets in the City of Tshwane and indicated that these have various levels of connectivity based on a number of indicators. The four roads were Atterbury Road, Helen Joseph/Stanza Bopape (former Church Street), Lois Avenue and Bronkhorst street/Duncan and Burnett Streets. Firstly, connectivity was influenced by the number of nodes per kilometre, with Helen Joseph/Stanza Bopape (former Church Street) and Lois Avenue having the highest number of the four streets, namely 8.3 and 8.2 respectively, with Atterbury the lowest, namely 3.2. This means both streets connect many other streets, increasing their connectivity. Secondly, the distances between intersections played a role. A distance of about 100 m was said to allow optimal accessibility to pedestrians. Not one of the four streets complied with this, but again Lois Avenue (with an average distance of 132m between intersections) and Helen Joseph/Stanza Bopape (with an average of 142m between intersections) did not perform so badly. Even the Brooklyn road was somewhat negotiable with an average distance of 179m between intersections. However, the worst case was Atterbury Road with an average distance of 529m between intersections, performing even worse than Brasília’s roads planned according to Modernist principles with an average distance of 400m. Thirdly, connectivity was influenced by the type of intersection, as X junctions facilitate greater connection than T-junctions. The Brooklyn road selection had the highest percentage of X-junctions before a section of Duncan Street was retrofitted with a median, effectively changing X-junctions to T-junctions. Interestingly, Lois Avenue had the lowest percentage of X-junctions as most where T-junctions. Atterbury had the same amount of X and T-junctions, but due to the low density of intersections, it is still regarded as a disconnected road. Lastly the routegram further reflects how to look at the connectivity of streets and to then provide a means of classifying them based on their connectivity, continuity and depth.

As the findings indicated, there are a number of things that should be considered to assess the connectivity of a particular road. The number of nodes, intervals or distances between nodes and the
types of intersections all influence the level of connectivity. Not one of these streets or roads performed well in terms of all the indicators, although some of the roads performed better in terms of selected indicators. Given this, it is important to consider a number of indicators together to measure the levels of connectivity and not one alone.

The discussion also showed that level of connectivity influences the resilience of the street and ultimately that of the urban morphology and the city. The level of connectivity of the streets has an impact on the robustness of the street system against failures. In this case, Helen Joseph/ Stanza Bopape is likely to be more robust against events such as a road accident or failure of street lights, compared to Atterbury Road, as it allows greater choice of and access to alternative roads. Vehicular accidents occur from time to time in the City of Tshwane and on these particular streets, while traffic lights regularly fail to work. In these circumstances, a more connected road network would be more resilient to cope with these failures and allow motorists to adapt to the circumstances. In addition, the robustness also refers to the ability of the street/road to accommodate different modes of movement. A disconnected road makes it very difficult for pedestrians to move from one area to another. Yet, in South Africa and in the City of Tshwane, a large percentage of the population do not own cars. In addition, while there are mini-busses available, many cannot afford it and are dependent on walking to their places of work. It therefore begs the reconsideration of the type and connection of roads/streets if the aim is to plan for more resilient cities for all people in South Africa.

Great streets facilitate movement and connect people and goods. In addition, great streets are also accessible to all, including pedestrians and are easy to get to. Having investigated the level of connection of four streets in Tshwane, it was not so easy to find great streets. In fact, given the definition of streets and roads, most of the movement spaces can be regarded as roads instead of streets. However, learning from these examples can assists planners in the future to consider the influence of connectivity in the making of great streets and places.

8. RESEARCH LIMITATIONS

Among the limitations to the study was the availability of, quality data (i.e. the fact that only zoning data and not land use data is available). This is especially true for the qualitative aspects that need to be investigated. In addition to the limitations of existing data some of the data is somewhat outdated. This can be seen to be due to the fact that some of the areas have undergone large amounts of change.

9. FURTHER RESEARCH

This paper identified the components for great streets, namely connectivity, activity and quality. However, due to the scope of the paper, it was only possible to discuss and analyse the aspects of connectivity. Future research needs to take this further and also unpack the indicators for activity and quality and then analyse the roads or streets in terms all three components and the influence on each other, i.e. how connectivity would be influenced by the activity within and the quality of the street.

In addition, it is acknowledged that great streets are also influenced by the larger area and other streets in their immediate surroundings. It would therefore be useful to study a larger area, for example an 800 x 800m block, as used by Salat (2011) to study many European, American and Asian cities, to consider the number of nodes, intervals or distances between nodes and the types of intersections which influence the level of connectivity in this area and compare the findings from South Africa with those of cities in the rest of the world.

10. ACKNOWLEDGEMENTS

The financial assistance (Grant no 78649 and Grant no 81213) of the National Research Foundation toward the research is hereby acknowledged. Opinions expressed and conclusions arrived at are those of the authors and cannot be attributed to the NRF.
11. REFERENCES


UN-Habitat, 2013b. Streets as Public Spaces and Drivers of Urban Prosperity. UN-Habitat, Nairobi.


Informal Settlements as Great Places

Johru Robyn
Acting Manager: Informal Settlements
Department Informal Settlements / Stellenbosch Municipality
Town Hall Complex, Plein Street, Stellenbosch, 7600, South Africa
Email: Johru.Robyn@stellenbosch.gov.za, Tel: +27 21 808 8460

Abstract

Informal settlements will not be eradicated by 2014! Neither will it be eradicated in the foreseeable future thereafter, because according to the website World –o –Meters the world population passed the 7 billion inhabitants mark in 2011 and will reach an estimated population of 9.6 billion in the year 2050. Furthermore, 1 in every 7 inhabitants of the world resides in an informal settlement, slum or favela (ibid). If this ratio remains constant, it implies that as the world population grows, the informal population will also grow, which in turn implies that more space is required for informal settlements, which ultimately implies that many will reside in an informal settlement from cradle to death. So what?

This question although intentionally rudely constructed is actually the beginning of finding an elixir to this conundrum. The majority of the residents that were born in informal settlements in Stellenbosch immediately prior to 1994 are still residing in these areas and has effectively become the next generation of informal settlement dwellers. This is in stark contrast to the commonly held belief that the growth and proliferation of informal settlements in post-apartheid South Africa is primarily because of the migration patterns of principally labourers, which was established during the pre-1994 era. Recent demographic surveys in two of the largest informal settlements in the Stellenbosch Municipal area have indicated that whilst this perception might have held true during the period before 2000 a.d. the same cannot be said about the current informal settlement populous. It was found that the majority of the residents did not come by truck and busloads from the Eastern Cape, but were actually born in the area (Langrug and Enkanini Enumeration Reports). They, it seems are the architects, engineers and town planners of the cityscape of the present and the future (Pieterse, 2010).

Given the above, i.e. that informal settlements are here seemingly ad infinitum requires a new way of thinking, as the housing programmes in South Africa has unequivocally shown that it cannot stem the growth in or increase of informal settlements. It is therefore imperative that the way in which informal settlements are managed will have a lasting impact not only on the inhabitants of a particular settlement but the entire community, region, province and country. This renaissance in thinking, strategy and approach to informal settlement management cannot be done alone. The literature is littered with references of the almost obsession to eradicate informal settlements, not only in South Africa, but the world over. Huchzermeyer (2008) deconstructs the eradication concept as it is understood and employed in the South African context. However, of importance here is that the ambitious politically motivated target of eradicating informal settlements by 2014 will not be met. In fact, statistical information indicate that the number and size of informal settlements are increasing. Therefore, the realization and acceptance of the tenacity and longevity of informal settlements requires a new approach to how informal settlements are managed especially as how it deals with natural population growth and the advent of the nouveau planners. According to UN-Habitat (Huchzermeyer, 2006), two campaigns that have direct relevance to informal settlements, i.e. good governance and the security of tenure. This research interrogates the concept of good governance as it pertains to informal settlements. The research is informed by a case study of a demographic survey that was undertaken in Zone O, Kayamandi.

Keywords: Governance, demographic survey, smart card, in-situ upgrading, developmental local government, managing informal settlements

International Convention Centre (ICC), Durban, South Africa
ISBN: 978-0-86970-781-4

170
1. INTRODUCTION

It is now confirmed that unless a notable apocalyptic event occurs, informal settlements as politically envisaged during the early 2000’s in South Africa (Huchermeyer, 2008), will not be eradicated by 2014, or in the foreseeable future. The net result is an increase in the number of informal settlements and informal settlement dwellers. Therefore new strategies must be developed to manage and govern informal settlements (NDP, 2013), but more importantly make informal settlements great places to reside in, as the period of residence will be quite long.

Within the South African context in general, and Stellenbosch in specific the eradication of informal settlements has always been umbilically linked to the provision of formal housing in accordance with the various housing programmes of the National Department of Human Settlements. What has however emerged over the last 20 years of the housing programme was that the rate at which formal dwellings/houses were delivered never met the growing demand for subsidised dwellings created by informal settlers and backyard residents (Stellenbosch Housing Strategy). Therefore, if informal settlements are not be translated into formal housing then other housing solutions must compensate for this lack in turnover (Misselhorn, 2008). The impact of the imbalance in supply and demand resulted in the growth in the number and the size of informal settlements.

According to the website (Worldometers) the world population surpassed 7 billion inhabitants in 2011 and will reach an estimated human population of 9.6 billion by 2050. This is a 38% increase on the current human population. Translating these figures into the South African context reveals the following, i.e. the current population (ibid) 53.1 million inhabitants will increase to approximately 74 million by 2050 (at the 38% growth rate). It is also estimated that 63% of the 2050 population will be urbanised (Worldometers). Superimposing those percentages on Stellenbosch municipal area reveals the following, i.e. current population of 155 733 inhabitants and 43 000 households (Size 3.3 – household size) and 25% of the urban population is in informal settlements (Regional Development Profile: Cape Winelands District, 2013).

<table>
<thead>
<tr>
<th>TABLE 1: SUMMARY</th>
<th>2010/11</th>
<th>2050</th>
<th>Increase in population (Worldometers)</th>
<th>Informal Settlement dwellers</th>
</tr>
</thead>
<tbody>
<tr>
<td>World population</td>
<td>7 billion</td>
<td>9.6 billion</td>
<td>38%</td>
<td>1.5 – 2 billion</td>
</tr>
<tr>
<td>South Africa</td>
<td>53.1 million</td>
<td>74 million</td>
<td>38%</td>
<td>±18.5 million</td>
</tr>
<tr>
<td>Stellenbosch</td>
<td>155 000</td>
<td>243 000</td>
<td>38%</td>
<td>±61000</td>
</tr>
</tbody>
</table>

A great place conjures up a plethora of images of ideal places and destinations. An impromptu Google survey of “what constitutes great places to live in” provided approximately 45 million results. None of the first 10 pages (approximately 200 results) produced the name of an informal settlement, slum or favela as meeting these criteria. What can be deduced is that informal settlements are not generally regarded as great places. It is generally regarded as places of doom and gloom where social evils are prevalent. In fact, many of the articles and books that formed part of the literature review commence their arguments with describing the informal settlements the world over as areas that are not great and must be eradicated, i.e. “to do away with informal settlements”. (Huchzermeier, 2008) or a “a major challenge” (Barry et al, 2005) or “murder for everyone living here was a staple of daily life and horrific poverty and isolation its backdrop” (Saunders, 2010). Contrary to these believes however, informal discussions with informal settlement residents indicate that the characteristics of a great place for a middle class family are exactly the same as for a family residing in an informal settlement. These characteristics are inter alia access to good educational opportunities, health, transport and employment.
In this paper it will be argued that the local authority has a significant role to play in making informal settlements great places. This role is not arrested to improving the physical environment alone, but also the re-imagining of the manner in which informal settlements are governed. What will be illustrated is the evolution from a primordial soup of loose ideas, haphazard disaster management, unsuccessful attempts at collecting informal settlement data, the use of different technologies and disparate attempts at managing informal settlements into a pragmatic model of informal settlement management.

This model employed here is based on the adage of data collection and the use of data to the benefit of a community and the municipality. Historically the use of data has been arrested to the confines of books and the literate few that can use it. What will be illustrated is how the same data used by the communities as a bargaining tool as proposed by CORC and SDI can be used by the local authority to improve the lives of informal settlement residents. Most importantly is the use of data and technology to improve the interaction of individuals with the municipality. What will also be shown is the how this unintended management tool is used to break down the department silos.

The main objective is to revisit and deconstruct the governance methods (if any) that are employed in informal settlements management, the mainstay being eradication and to arrive at a governance model that can address the interconnectedness of the various aspects of informal settlement management. The concept of interconnectedness is imperative as informal settlements are dynamic and vibrant places: The objective therefore is to arrive at 3 outcomes:

i. Primary – to create an improved platform for interaction with the community

ii. Secondary to integrate the various institutions.

iii. To create an environment of interconnectedness and making great places – recognizing the inputs of all stakeholders in order to create a new governance paradigm

Municipal programmes

Stellenbosch Municipality’s vision is to become the Innovation Capital of the world and it premises this strategy on 5 pillars, i.e. Preferred Investment Destination, Greenest Municipality, Safest Valley, Dignified Living and Good Governance. Two of these pillars that are of key importance to this research are Dignified Living and Good Governance (Stellenbosch Municipality, 2014).

Dignified living

One of cornerstones of the Stellenbosch Municipality is its dignified living programme. This programme aims to provide a place where all citizens can experience a dignified existence. In accordance with this programme the manner in which the Municipality interacts with amongst others informal settlement residents is a of crucial importance.

Good Governance

Stellenbosch Municipality’s vision is to become the innovation capital of the world. Included in the innovation concept is the use of technology to the advantage of the inhabitants in general. Free WiFi, is one of the projects that is identified under this programme. As will be discussed the use of web and mobile technology is embedded in this innovation programme.

National Frameworks

Chapter 8 of The National Development Plan (NDP) emphasizes the need to address or eradicate informal settlements by 2030. It is one of the key actions of this plan.

Problem Statement (Record of Issues)

During March of 2013 a fire broke out in Zone O, Kayamandi, Stellenbosch (figure 1 (below)). The fire gutted approximately 1 500 structures and left thousands homeless. The immediate response by the local authority was to put all the structures in place as required by the Disaster Management Act 57, 2002. However, during and immediately after the process it was found that the actual disaster was not the fire, but rather the lack of information on the informal settlement residents. This lack of proper information on the informal settlement was emphasised in the manner in which the events in the
The aftermath of the disaster was approached even though they played a pivotal role in doing the survey. The aim of this paper is however not to elaborate on the mistakes that were made immediately after the fire. The central tenant to this positivity is the collection of informal settlement data and the use of that data.

**FIGURE 1: ZONE O**

A secondary issue that emanated from the fire was the unreasonable expectation that were placed on the structures owners as illustrated in figure 2 (below). In essence a fire victim (presumed owner) had to be in at least four places simultaneously. Which meant he/she had to trust someone to be at all the other places on his / her behalf. What transpired was that the trust relations were severely severed and Zone O was left with a host of new residents and quite a number of homeless elderly. The aim of the Municipality was therefore to avoid a repeat of the aftermath of the fire, because informal settlements by their nature are prone to disasters. The result of this was utter chaos and confusion and disarray which lead to amongst others fire/emergency kits being issued to the wrong families, individuals, people claiming to be the shack owners, the creation of multiple resident lists which could not be correlated athers.
A third issue (longer term) was that during the year, scores residents frequented the Informal Settlements Department for amongst others proof of residence and even existence and dispute resolution.

A fourth issue and the most terrible consequence of this entropy was that the elderly lost their homes and had to become borders in their own structures.

The last issue was that the community had no means to communicate with the municipality.

Timeline
What the Municipality has therefore done over the last year (figure 3) is to find ways and means to improve the lives of the inhabitants. The immediate and logical response was to undertake a survey to fill the data / information void. This decision was met with expected resistance by the community, (Seyle in Louw (2008)) however the persistence of the resistance was not anticipated.

FIGURE 3: TIMELINE

What the Municipality has done and experienced through its partnership with CORC was to develop profiles of the communities.
Partnerships
During 2010 the Stellenbosch Municipality created the informal settlements department with the explicit objective of “dealing” with issues stemming from informal settlements. From the onset the municipality realised that there are other organisations that are far better at engaging communities. Accordingly it went into partnership with the Community Organization Resource Centre (CORC) and SDI primarily to develop communication links with the informal settlement communities. That partnership with CORC and its association with the Planning Schools of Africa opened up a door to Africa and the world. In particular of interest to the Municipality were CORC and SDI’s enumeration process and upscaling.

**FIGURE 4: PARTNERSHIP MODEL**

The enumeration process was developed as a tool for local communities to use as leverage to negotiate with the municipalities. Over the years CORC has developed with City of Cape Town a residential card which captures some essential data of the structure, the household etc.


Upscaling
Another concept introduced to the Municipality by CORC was upscaling which in essence means to create a larger platform or to include a bigger community. The process that will be described hereunder is the Municipality’s attempt at piloting the project and then upscaling it to a municipal wide the process. The reason for this upscaling is to create a look and feel of access to the municipality for informal settlement residents that are uniform.

Essentially the data base that is created will be distributed to various departments in the municipality most notably electricity, finance, disaster management, housing administration and anti-land invasion unit.

Brief review
One of the things that were observed was that all information, i.e ID, SASSA card, health card, etc was destroyed in the fire, location of residence and this created confusion as indicated on Figure 2 above.

- This project entails a demographic survey of Zone O.
- The data is collected on a simplified form which was developed in the aftermath of the fire
• The form includes the capturing of all the numbers that were identified as important to the residents, such as ID number, health card number (hospital/clinic card) SASSA number, electricity box number, individuals data on the housing waiting list.
• The captured data is linked to a database that is web and mobile accessible. Access restrictions are imposed on the data. As reason: in order to reduce cost to the community and municipality.
• The information is captured on a database and common information such as emergency numbers, the individual’s ID numbers and electricity box number, is captured on a smart card.
• The facial information of the structure owner is captured in a biometrics system (reason: to avoid shaft theft)
• That data is linked to the Departments mentioned above.

Lastly improved data implies improved access to upgrading funds such as the equitable share and indigent grant, better management and ultimately governance.

Outcomes
Our expected outcome is to reduce costs for the Municipality and community. To provide security of tenure through the issuing of a smart card as a key to interact with the Municipality and to create web and mobile access to identified Departments to initially view the available data on a settlement.

FIGURE 5: SAMPLE WEBSITE
2. LITERATURE REVIEW

The literature review is centred around themes that generally makes reference to informal settlements, slums, etc. This is derived from a vast array of complementary and disparate view-points. The review is then drilled down to interconnectedness and governance in general and informal settlement management in particular. Whilst the introduction zooms in on the importance of a demographic survey the wider literature review concentrates on the connections that can be made through the demographic survey. Some of the concepts that were under scrutiny and unpacked is the community (leader) resistance to change, their conceptualisation and interpretation of public participation and acceptance of technology as a means of interaction (Seyle in Louw 2008).

Undertaking demographic surveys in informal settlements is not a new phenomenon (Barry et al, 2005, Misselhorn, 2008). Governments and organisations use surveys for all kinds of purposes. As mentioned above it is one of the key exercises of CORC and SDI is to undertake enumerations. The City of Cape Town, according to The New Age online (Accessed 31 May 2014) indicated that the city did an enumeration during 2013 of 6470 household which resulted in the city issuing tenure security certificates. However the intended outcomes of this survey fundamentally diverges from other surveys, for it is not concentrating on the direct outcomes of the survey but rather looks at the indirect outcomes.

The literature review is a premise on internet searches of the google search engine primarily for articles on informal settlements. Whilst there is a plethora of informational articles the majority of these references Huchzemeyer (2008), Bolnick (2010) and Victor (2009).

Barry & Rüther (2005) did a study of data management for informal settlement upgrades in which they explore various data collection methods in order to improve management of informal settlements.

3. THEORETICAL FRAMEWORK

The theoretical framework is premised on chaos theory in particular in how a system is initiated and how this departure impacts on the eventual outcome of the system. According to chaos theory he initial input into a system determines the outcome of the system.

What this implies was the total data collection and management system had to be revised. This meant that a fresh approach had to be taken in order to ensure that information was available and useful.
What you are doing is not so unique!

There exist a richness of models and tools that are centred around data collection and interpretation and the representation of the outcomes. CORC, SDI and City of Cape Town created the residential card for residents in Khayalitsha as a product of their joint enumeration processes. There is the internet drum that is employed by UNICEF in Uganda, the STDM Model also Uganda and the work that SDI is currently undertaking with the San Francisco Institute around data collection and recognition. Also RAPIDSMS which is a fast messaging system and STDM Model by SDI. The local government is collating all of these efforts and creating the platform where communities can speak to the local authority, web access, and card for resident’s mobile access, live and current data. Most importantly is to see how this data can be used in multiple ways to improve the lives of ordinary citizens. This platform includes transversal linking with the local authority.

4. OBJECTIVES / RESEARCH QUESTIONS

Objectives

Initially the objective of the research was to find a post disaster solution in order to avoid the mayhem that occurred. However, during the research process it was found that there are secondary and tertiary outcomes which could have a more profound effect on creating a great place than having a database alone. These objectives transcend the siloed confines of informal settlement management and enter the realm of inter-departmental and intergovernmental relations, as well as good governance. Barry & Rüther (2005) have experimented with several data representation techniques amongst others title certificates, the last method is also employed in the City of Cape Town.

As mentioned earlier, in the aftermath of the fire, the informal settlements department was overrun with requests for amongst others, proof of residence, by not only the residents, but also internal and external departments, the post office and banks. The lack of information of the population lead to all kinds of frustration for all parties concerned.

The primary objective of this research is therefore to create an environment for the inhabitants and the local authority where they can interact with the municipality without being sent from pillar to post. A second objective is to create an environment where data on a particular community is uniform and accessible throughout the municipality by using web and mobile access.

The specific objective of the research are:

i. to avoid another post disaster catastrophe as was experienced in the aftermath of the Zone O fire.
ii. to reduce the time that informal settlement dwellers have to spend at the municipality.
iii. to develop the one-stop-shop concept of enquiries at the municipality.
iv. to safeguard information against disasters, i.e office storage.
v. to access funds for the upgrading of informal settlements, e.g. the equitable share.
vi. to provide security of tenure or at least acknowledging that the residents are there.

The research will be used as a platform from which to create a municipal wide database of informal settlement dwellers. This information will be available through web or mobile access.

Finally, the objective is to create an access controlled web-based data storage system that can be remotely accessed to verify resident data by means of amongst others cell phone access. This cost and time saving experience will significantly contribute to making an informal settlement a great place.

Research Questions
The major questions that his research attempts to answer are:

i. how can the resident’s interaction with the municipality be improved?
ii. how do we avoid the chaotic situation that was experienced after any disaster?
iii. how can an abstract action to the community such as improved data collection contribute to making great places?
iv. what should be done to increase / experience the effectiveness of municipal-community interaction?
v. how do we improve the delivery of not only the tangible service such as installing pipes tapes and toilets, but also the intangible services of interaction with local authority?
vi. how do we improve the situation that the residents feel that where I am is a great place?

Current Realities (Business as usual)

Zone O is approximately 4 kilometres from where the informal settlement department is located. (Figure 6 below). This journey is either taken by taxi, but most commonly by foot regardless of the weather conditions. The travelling time and cost are therefore a serious concern for the resident. Also, many who arrive on foot have to take time off from work which means loss of income for mostly mundane and seemingly insignificant enquiries.

FIGURE 6: DISTANCE FROM ZONE O (4 KMS)
The queries that these resident have can be reduced to the following: Application or query about electricity, emergency kit, proof of resident, extension of a shack or relocation within a zone or to a particular zone, a water and sanitation issue or a safety issue. This requires the assistance of a few departments namely engineering services, housing, finance and safety and security and disaster management. (Figure 7 below).

**FIGURE 7: MULTIPLE DEPARTMENT USERS**

5. APPROACH & METHODOLOGY

The initial response and approach to dealing with the fire disaster was to combine all available data sources on the community. It became very clear that the available data was not acceptable as it came from disparate sources and did not conform to any standard collection and capturing method. In essence each department collected and captured data as it made sense to the particular department. The data was for instance collected by persons issuing the emergency kits. This impasse required a new direction in collecting data with the emphasis that it must be beneficial to the individual, the community, the local authority and the broader institutional community.

The appointment of a contractor diverted from the CORC model primarily due to time constraints and the MFMA (Act 32of 2003).

The approach was done on a tried and tested public participation procedure, i.e. arrange a public meeting, identify the key stakeholders at the meeting, usually proposals by the community. Complete the roll out strategy with the key stakeholders and report back on the strategy to the public. The first attempt at launching the programme did not progress beyond the public meeting. A revised strategy was then employed, i.e. to liaise with smaller groups. This was also unsuccessful. During this time the entire area was electrified and the shacks were numbered however a demographic survey was not allowed until it was linked to the housing project nearby. One of the main reasons why the demographic survey could not be launched was the 2014 national and provincial elections. Community leaders rallied around the survey for political brownie points.
The re-imagining of the exercise meant that the approach had to change. People had to see what benefit the survey would have. The primary method of gathering data therefore changed from collating existing data to arranging a basket of data collection methods, i.e. unstructured interviews with community members and community leaders, discussions with colleagues who were directly involved in resolving the disaster minutes of the Joint Operating Committees (JOC) sessions, questionnaire to the community, meetings and minutes and public information sessions and e-mails from other institutions involved in the process.

Method

The original intension was a door to door survey however, inclement weather made this almost impossible. As a mitigatory measure a structure of one of the inhabitants was used. This person did not hold favour with the community and the processed was almost derailed.

6. RESEARCH ANALYSIS & FINDINGS / RESULTS

The research confirmed the need for current and up to date data. It also underpinned the fact that this data must not be dormant, but must be updated if and when possible. One such strategy is to compile data through the walk-ins or the number of messages sent regarding enquiries. The number of structures were fixed at 1700 and the research variable i.e. the number of people residing in the area. The purpose of the research was also to determine if there are in fact 1700 structures or if there are more structures.

What the research has also found is that there is a definite need for cross departmental interaction. What started out as a cost cutting and time saving exercise for the communities turned into departments jockeying for access to the information.

The research also indicated that there is a real possibility that the issue of the equitable share, i.e. access and allocation at all levels must be revisited and this data can become the basis for this.

The data is also clearly indicating that contrary to common belief, i.e. that busloads of people are streaming into the urban area in a reverse apartheid migration fashion, growth of this population is spurred on by natural progression and growth of families. To put this into perspective, the local authority receives approximately 300 housing subsidies which translates into 300 housing opportunities. The housing waiting list is at approximately 20 000 applications. Added to this is that informal settlement residents and farm workers are not necessarily on the waiting list. That leads to a significant number of families that can contribute to the growth of the settlements.

The community subscribed to the concept of a card of smart card as a method of proof of security of tenure. The process was stopped a number of times, however the broader community demanded that the process be completed.

i. The collection of facial recognition data is used as an added security measure to ensure tenure.

ii. The municipality receives numerous walk-in enquiries which can now be dealt with at any of the Departments mentioned above.

iii. The information is transversally used with the Municipality and will lead to better reporting.

iv. Improved communication cell phone numbers etc.
7. RESEARCH CONTRIBUTION

As mentioned earlier the technology or the ideas employed here are not new, organisations like CORC, SDI and governments have been doing enumerations for years. Neither is the use of technology a new phenomenon. The banking industry and several other institutions have been at the technological forefront in indirect access. The City of Cape Town and other metros have structures in place to deal with security of tenure, delivery of basic services. However, much of the research thus far has been for, as in the case of the NGO (CORC) to create a platform from which to launch negotiation with the local government. In this process the response and interpretation of the data/information by the local government has not been captured or reported. What the research also investigates is how the community can benefit from this survey through mainly ease of access to the municipality. The contribution to the research is in the how we deliver a better service to a category of the population who has been regarded as the hand out community. The local authority is not the primary protector of data however in doing so it is making or creating a secure and safer environment. Data sharing within the municipality and broader community must be further investigated.

8. CONCLUDING REMARKS

The Demographic survey of Zone O started off as a response on the events that unfolded after the fire of March 2013. What has transpired was that the formal housing project was linked to the survey which sent the objective of the survey on another trajectory. The housing issue brought along jockeying for position, wrong information based on housing allocation was sent into the community by its leaders. However, the survey has opened up new ways for community-municipality interaction.

9. RESEARCH LIMITATIONS

This survey was to be done immediately after the disaster, however the funding structures were not in place at the time and provision of basic services to the level that was available before the fire was given priority.

- The survey could only be done during the day when many of the inhabitants were working.
- Also, the weather was not kind to this process as many working days were rained out.
- Mitigation measures were met with resistance from the community.
- Time / funding regime municipality.
- The public participation process was difficult because the area is characterised by strong political antagonism. Therefore the right area had to be chosen and agreed upon prior to commencement of the survey. Even then the agreed upon commencement area seemed to be right area.
- Training local labour.

10. FURTHER RESEARCH

The research has opened a plethora of research avenues and questions that can contribute to the process of developmental local government. As mentioned earlier one the key elements of this research is to ensure that the services that are delivered by the local authority address direct service delivery such as your access to basic services such as toilets and taps, but also the indirect services such as making access to municipal structures easier, making sure that the funds allocated by government area allocated to the correct settlements and in the appropriate proportions.

Public participation processes has been found wanting and needs further research. The public participation processes employed and envisaged by the Systems Act (32 of 2000) has been reduced to cosmetic, compliance processes that meets the budget and IDP process requirements. Significant community input is not necessarily always recorded, as it has a tendency time to reach consensus.

Communication with the community via modern telecommunication methods should also be investigated. One of the methods employed here is the use of cell phone messages (SMS’s), Facebook and Twitter. The use of electronic signage by school is an old phenomena, however has not been tapped into by this local authority.

The interaction between local communities and the local authority. Currently the process as described here is tedious and laborious. The use of technology in part reduces the time required for interaction for both parties concerned.

The logistics of rolling this process out en-masse needs to be further studied.

11. ACKNOWLEDGEMENTS

The local authority’s partnership with the NGO (CORC and SDI) opened upon a new canvas for interaction with communities. The emphasis of CORC is to mobilise communities through amongst others enumerations to liaise with their respective local authorities. This local authority has embraced this process and has created a platform where this can happen in a constructive manner. The insights and learnings made by the local authority through this process, partnership and interaction with CORC is invaluable.

The local communities for embracing the process of enumeration and this survey. Their input through these processes had been taken into consideration and helped streamline the processes.

Colleagues that gave their time and shared experiences in putting this paper together – thank you.

12. REFERENCES


New Age (Online) [Access 31 May 2014].


Other reference: Books.


The Bright Lights of City Regions –
Assumptions, Realities and Implications of Changing Population Dynamics: Zooming in on the Gauteng City Region

Amy Pieterse¹, Elsiona van Huyssteen², Gerbrand Mans³, Johan Maritz⁴, Willemien Faling⁵
Candidate Researcher¹, Principle Researcher², Senior Researcher³,
Senior Researcher⁴, Senior Researcher⁵
Council for Scientific and Industrial Research, Built Environment
South Africa
¹apieterse@csir.co.za, Tel: +27-12-841 2566

Abstract
It is well known that the city regions attract migrants from across the country because of their roles as economic engines and job baskets in South Africa. To address urbanisation implications it is imperative to better understand some of the assumptions about the nature and dynamics of population growth and internal migration across the South African landscape, and in particular within the Gauteng city region as the largest of the city regions. Three key issues emerged that are related to assumptions of migration and urbanisation. Firstly, even though poverty has been perceived as largely a rural issue, the urbanisation of poverty is in fact occurring at a large scale and city regions, particularly the Gauteng city region, is dealing with an enormous, and increasing number of poor people. Secondly, the attractiveness of city regions has caused a great increase in the proportion of young people and young work seekers. And lastly, that the biggest proportion of migration flows is occurring between metropolitan areas and that migration is not only a rural-urban process as generally believed. The other issues that emerged and that need further investigation is the reality of circular migration, the effect of changing household sizes and the ability of city regions and other settlements to absorb newcomers.

Keywords: Population change, poverty, migration, Gauteng city region, metropolitan areas

1. INTRODUCTION
It is has often been reiterated that Africa’s future is an urbanised future. South Africa’s urban transition during the post-apartheid period have been characterised by the role of city regions and cities, and to some extent also a range of towns, acting as major attractors of growth and migration over the last number of years. Cohen (2004) maintain that, internationally, the current urban transition differs greatly from that which was experienced in the early to middle 20th century in Europe and the United States. The scale of urban population growth is unprecedented, it is occurring at a rapid pace and it is occurring in countries where urbanisation is detached from economic development (ibid). It is estimated that by 2011 more than 70% of South Africa’s population were already living in cities, towns and settlements (Van Huyssteen et al., 2013) across the country and that the growth rate for the range of cities and towns remained relatively high, compared to the rest of the country. In a recent study on the population dynamics and growth of cities and towns conducted as part of the Regional Dynamics and Interactions (Regional DnI) Initiative by the Council for Scientific and Industrial Research (CSIR), Built Environment it has been estimated that of the 51.8 million South African population (StatsSA, 2011), about 42% reside within the four city region areas of Gauteng, Cape Town, eThekwini and Nelson Mandela Bay (Van Huyssteen et al., 2013). In addition to the estimated 57% of the formal economy
generated in the city regions (ibid), these areas also play an important role as economic engines and job baskets of South Africa, by housing large parts of the informal economy and large numbers of small businesses.

In spite of the growing urban population, the complexities of the South African urban and rural landscape and strong urban rural linkages, amongst other factors lead to a situation where migration to urban areas is often non-permanent, with evidence of rural-urban circular migration, as well as of high levels of intra-metropolitan migration (SACN, 2009; Collinson et al., 2006a; Beukes, 2013). Given the major political and policy emphasis on rural development, and the challenges of increasing rural poverty and job creation, many studies are aimed at understanding and redressing the implications of these migration patterns on rural areas (see Bank & Minkley, 2005; Scoones & Wolmer, 2003, Hemson et al., 2004 and Collinson et al., 2006b).

Whilst recognising the challenges of rural South Africa and the impact of continued migration and centralisation in rural South Africa and on the range of smaller and medium sized towns, scholars and practitioners agree that a range of key questions need to be asked about the nature of urban growth and migration in order to inform government support in urban areas and the ability of metropolitan municipalities to absorb incoming migration and changes in population dynamics. (Collinson et al., 2006b; Cross, 2001; Collinson et al., 2006a; Posel & Marx, 2011; Landau et al., 2013; Beukes, 2013; Kok et al., 2003; SACN, 2009).

Urbanisation is often cast as a ‘problem’ of the influx of people from rural areas to urban areas. Often pitched as a double sided edge of rural areas that are losing resources and capacity to urban areas, and on the other hand urban areas that are faced with limited capacity to absorb the migration, and an ever increase in service delivery backlogs. However, to address urbanisation implications it is imperative to better understand some of the assumptions about the nature and dynamics of population growth and internal migration across the South African landscape, and in particular within the city region areas.

Amidst the myriad of challenges to address issues relating to migration (especially labour migration), poverty and the youth remain central in engaging “great futures” in metropolitan areas (see Beukes, 2013; Todes, 2010; Roux, 2009 and Kok et al., 2003). As such this paper is aimed at contributing towards a more nuanced understanding of urbanisation, migration and urban growth in city regions in South Africa, specifically the Gauteng city region, by highlighting three key issues related to perceptions about migration and urbanisation:

- **ONE:** Contrary to perceptions about poverty as largely a rural issue, South Africa is seeing an ‘urbanisation of poverty’ with the result that urban areas now shoulder a larger number of poor people (in absolute terms) more than rural settlements in aggregate. Metropolitan areas/city regions in particular are experiencing an urbanisation of poverty.
- **TWO:** In accordance to perceptions that young work seekers are attracted by the bright lights and explore opportunities in cities, the percentage of entrants into the job market increased significantly since 1996.
- **THREE:** Contrary to urbanisation often being cast as a ‘problem’ of rural-urban migration, it is evident that a large portion of migration happens between metropolitan areas.

The paper highlights these three key issues by drawing on recent research and analyses by the authors that has been conducted as part of the ongoing Regional Dynamics and Interactions (Regional DnI) advanced spatial analyses by the CSIR, Built Environment and a specific study by the authors into population change, trends and dynamics across the continuum of rural to urban settlements, as input into the national Integrated Urban Development Framework (IUDF) for the South African Cities Network (SACN) and the Department of Cooperative Governance and Traditional Affairs (COGTA). The studies and analyses were made possible by the recent Statistics South Africa (StatsSA) demographic data release, the updated Geospatial Analyses Platform (CSIR, 2013a), the recently
updated typology of Functional Settlement in South Africa (Van Huyssteen et al., 2014) (which was originally developed to support the development of the national urban development framework) and the recently developed Temporal Analyses Tool (CSIR, 2013b). It is important to note that this paper only covers internal migration and international migration has not been included.

The findings highlighted in the paper clearly indicate that urbanisation to South African city region areas are indeed characterised by the urbanisation of poverty as well as an urbanisation of youth, with most migration taking place between city regions and cities. This is especially evident for the Gauteng city region, where these trends manifest most noticeably. This not only confirms perceptions about city regions as increasingly being the spaces where the future of South Africa’s youth will be determined, but also once again rings the alarm bells for urgent, focused and innovative government support to address urban poverty, development and service delivery implications.

2. BACKGROUND

The next section will provide brief background on migration, the city region areas and on the methodology and data sets used to analyse functional regions and settlements.

2.1. Issues on migration – providing context

Kok et al. (2003) differentiates between the two main types of migration in South Africa, namely permanent migration and labour or circular migration. Labour migrants will usually move on their own and form a one-person household at their new location, whereas permanent migrants will move with their entire household or parts thereof. The existing research on internal labour migration trends in post-Apartheid South Africa is incomplete at best (Posel, 2004; Beukes, 2013). The research that does exist mainly provides a cross-sectional snapshot of a subpopulation, looks at census data to examine changes in migration patterns or studies a population of a specific geographical or administrative area (Reed, 2013). Beukes (2013) also argues that these arbitrary political and administrative boundaries within which migration is measured also make meaningful analysis difficult.

The effects of circular migration such as single headed households, absent members and health implications are often experienced within the household. Circular migration also provides many households with opportunities that would have otherwise been out of reach. The migrant worker benefits directly from the opportunities that the city has to offer and shares these benefits with their rural household of origin. Households living in poverty will migrate to places where “poverty reduction is most likely to occur” (Skeldon, 2012: 48). The city offers the migrant worker with access to employment, government infrastructure and services that are not necessarily always available in the rural areas. Urban areas are popularly regarded as places of opportunity, and therefore they attract a large amount of people, including the poor.

Cross (2001) argues that the high levels of mobility are putting infrastructure planning at risk. She also identifies a myriad of possible consequences that migration can have on the country and its citizens, namely it raises the demand for land and housing through the establishment of more single person households; it destabilises traditional institutions; it damages social capital networks; and it raises the risk of corruption because weakened communities may not be able to oppose power figures. Rapid urbanisation puts immense pressures on a government’s ability to provide public services. And looking beyond our borders, the mushrooming of informal settlements and slums in the major cities of the rest of the developing world are evidence of the widespread struggle to accommodate a growing population (Buhaug & Urdal, 2013). In a study done by Perlman (2007) on the favelas in Rio de Janeiro, Brazil; she found that the persons and households that moved to the favelas, did so to move away from poverty and these informal settlements in the city of Rio de Janeiro provided them with the opportunity to integrate into the city and to access to opportunities.
It has been a central concern for policy makers in South Africa since Apartheid to determine the scale and nature of migration within the country. Since 1994 one of the major objectives of government was to alleviate poverty and provide everyone with equal access to basic services such as housing. In the context of rural-urban migration and the powerful urban-pull factors, the responsibility falls on metropolitan areas to be able to absorb migrants and to provide them with the basic services that they need to enter the urban labour market. The labour market often struggles to absorb fast-growing populations and together with the higher levels of noticeable inequality in large cities and metropolitan areas, are latent sources of urban frustration which can contribute to social unrest and disorder (Buhaug & Urdal, 2013). Some of the questions that need to be asked are do we need to improve the conditions and provide economic opportunities in the rural areas or do we need to focus our resources on improving the cities and to encourage urbanisation. These questions have some major implications for South African policy.

Government has had no consistent approach to migration because of the sensitivity of the subject and the possible negative effects on either the places of origin or destination. As a result, the growth experienced in the metropolitan and city region areas has largely been met with reactive and sometimes aggressive responses (Turok, 2012). This can especially be seen in government reactions toward informal settlements that emerge as a consequence of rapid expansion (Turok, 2012). It is important for government to understand and acknowledge the dynamics of internal migration. For government to plan properly and to achieve its developmental goals, it is required to address the social, economic and physical consequences of population movement. Government must be able to anticipate changing trends in migration and their possible consequences to ensure that policy is pro-active instead of re-active.

Migration and urbanisation have been seen as a single process, but evidence have shown that urban-urban and rural-rural migration is much more powerful than expected, even more so than rural-urban migration (Cross, 2001; Roux, 2009; Kok et al., 2003; Collinson et al., 2006a). This is reflective of the fact that migration processes needs to be monitored effectively to ensure that policy addresses the issues at hand.

2.2 Background on methodology to analyse settlement types and growth in settlements specifically

This analysis makes use of the recent update of the typology of South African settlements, which was originally developed to support the development of the national urban development framework (Van Huyssteen et al., 2014). This typology was born from a collaborative research project between the CSIR, the Presidency, SACN and COGTA in 2008/2009 aimed at providing an overview of the diverse South African urban landscape (see figure 1).

The main spatial analyses platforms, tools and research that form the foundation of the analysis include:

- The Geospatial Analyses Platform (CSIR, 2013a), which is the platform and spatial data infrastructure on which the above mentioned typology was developed;
- The Temporal Analyses Tool (CSIR, 2013b), is the tool that enables the alignment and comparison of StatsSA’s census data from the three most recent census years namely 1996, 2001 and 2011 to any spatial unit courser (larger) than the small areas layers (SAL) used by StatsSA for the collection and reporting of data for the 2001 and 2011 censuses; and
- Recent settlement growth research conducted in 2013 and 2014 by the CSIR. The body of work was funded by CSIR, and published as policy briefs within the StepSA initiative during 2013 (Van Huyssteen et al, 2013).

5Spatial Temporal Evidence for Planning South Africa (StepSA) is a collaborative initiative in support of integrated development and spatial planning across the different sectors of government and scales of planning. The purpose of the StepSA platform (http://stepsa.org/) is to develop and provide access to
From this settlement typology, city regions have been identified as a functional settlement type, together with city areas, regional service centres 1-3, service towns, local and niche towns, high density settlement areas, sparse rural areas, and dense rural areas (see figure 1). The city regions of South Africa include the Gauteng city region, Cape Town city region, eThekwini city region and Nelson Mandela Bay city region (see table 1). The Gauteng city region will be the focus of this paper.

![Spatial representation of functional settlement types for South Africa](image)

**Figure 1:** Spatial representation of functional settlement types for South Africa

<table>
<thead>
<tr>
<th>Type</th>
<th>Name</th>
<th>Province</th>
<th>Population</th>
<th>Count of type per province</th>
</tr>
</thead>
<tbody>
<tr>
<td>01CityRegion (CR)</td>
<td>Port Elizabeth CR</td>
<td>Eastern Cape</td>
<td>1 149 989</td>
<td>1</td>
</tr>
<tr>
<td>01CityRegion</td>
<td>Gauteng CR South</td>
<td>Free State</td>
<td>173 416</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gauteng CR Ekurhuleni</td>
<td>Gauteng</td>
<td>3 182 680</td>
<td></td>
</tr>
</tbody>
</table>
Table 1: The functional city regions of South Africa

<table>
<thead>
<tr>
<th>Gauteng CR Johannesburg</th>
<th>Gauteng</th>
<th>4 434 816</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gauteng CR South</td>
<td>Gauteng</td>
<td>852 968</td>
</tr>
<tr>
<td>Gauteng CR Tshwane</td>
<td>Gauteng</td>
<td>2 875 740</td>
</tr>
<tr>
<td>Gauteng CR West</td>
<td>Gauteng</td>
<td>797 770</td>
</tr>
<tr>
<td>Gauteng CR North</td>
<td>Limpopo</td>
<td>518</td>
</tr>
<tr>
<td>Gauteng CR North</td>
<td>Mpumalanga</td>
<td>316 912</td>
</tr>
<tr>
<td>Gauteng CR West</td>
<td>North West</td>
<td>525 143</td>
</tr>
<tr>
<td>01CityRegion</td>
<td>eThekwini CR</td>
<td>3 673 345</td>
</tr>
<tr>
<td>01CityRegion</td>
<td>Cape Town CR</td>
<td>3 872 895</td>
</tr>
</tbody>
</table>

The Gauteng city region is a functional region and cuts into four other provinces besides Gauteng, i.e. the Gauteng City Region relates to five provinces namely the Free State, Limpopo, Mpumalanga and the North West.

3. HIGHLIGHTING THREE KEY ISSUES RELATED TO PERCEPTIONS ABOUT MIGRATION AND URBANISATION

As set out in the Introduction, the paper is aimed at highlighting three key issues related to urbanisation and migration. In the next section each of the issues will be addressed, a brief overview will be provided of the methodology and data used to explore the issues and a summary of key findings, especially related to the city regions will be provided.

3.1 Using shifts in age cohorts to explore population movement and change

Introduction:

Here the age cohort changes are explored between 1996 and 2011. These changes provide an indication of in- and out-migration of certain age cohorts for specific settlement types or areas. Initially a national overview will be provided followed by considering the Gauteng city region specifically, and interpreting age cohort change from 1996 to 2011. In light of the delayed release of the official StatsSA migration data, the shifts that occurred in certain age cohorts between 1996 and 2011 are analysed. Also in addition to this analysis, the Independent Electoral Commission (IEC) data on voter registration has been used to provide a broad picture of patterns of population movement across the country. This analysis tracks the movement of voters between local municipalities between elections. Even though this data is at local municipality level, it provides a clearer picture of national migration patterns and the underlying trends.

Methodology:

A key indicator that is utilised as an indication of migration is the shifts in age cohorts between different years. This analysis provides an indication of in- and/or out-migrations by tracking the spatial distribution of a certain group of people between 1996 and 2011. For example comparing the spatial distribution of the cohort aged 0-9 in 1996 and where they find themselves as 15-24 year olds in 2011, provides an indication of where young adults have most likely moved to (given influences such as mortality etc.) but without the knowledge of where people are coming from or going to. This will show
whether this specific age cohort stayed the same (no in-migration) or whether it grew significantly (in-migration).

Age cohorts of ten year intervals were prepared. The change was measured over a period of 15 years calculating the change between the 1996 and 2011 censuses (see table 2). The age cohorts used for the analysis were the 0-9; 10-19; 20-29; 30-39; 40-49; 50-59; 60+ year old people of 1996. This alignment allows for a more accurate analysis of the impact of the working age population on migration trends due to the 0-9 year olds of 1996 being the entrants in the working age group in 2011, namely the 15-24 year olds. In table 2 1996 and 2011 corresponding age cohorts are shown. All descriptions refer to the 2011 age cohort, unless otherwise specified.

<table>
<thead>
<tr>
<th>CSIR cohort description</th>
<th>Entrants</th>
<th>Young adult seekers</th>
<th>Adult strivers</th>
<th>Middle age grinders</th>
<th>Transitioners</th>
<th>Retired</th>
<th>Vulnerable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>0-9</td>
<td>10-19</td>
<td>20-29</td>
<td>30-39</td>
<td>40-49</td>
<td>50-59</td>
<td>60+</td>
</tr>
<tr>
<td>2011</td>
<td>15-24</td>
<td>25-34</td>
<td>35-44</td>
<td>45-54</td>
<td>55-64</td>
<td>65-74</td>
<td>75+</td>
</tr>
</tbody>
</table>

Table 2: Corresponding age cohorts between 1996 and 2011

The IEC provided the unit record voter register in an anonymised format and the items received included person identifier, which is a unique number for every person in the data set, Gender, Four-digit birth year, and the voting district where the person was registered in 1999, 2000, 2004, 2006, 2009 and 2011. In addition to the tabular data, the voting districts were also supplied in geospatial file format for each election, namely national, provincial and municipal elections. Because voting districts differ between consecutive elections, the 2011 election period was selected as the base spatial unit and all prior election data were to relate to it. Using an area proportioning approach the 1999, 2000, 2004, 2006 and 2009 areas were apportioned to the 2011 voting districts. Then a randomisation procedure was then used to determine the most appropriate 2011 voting district for each registered voter. These allocations provided the basis for the subsequent migration trend analyses.

The greatest limitation of this data is that it only represents registered voters and excludes those who are not eligible to vote as well as those who choose not to vote or register as a voter. Despite this, a sample of 23.7 million in 2011 is adequate to be a feasible alternative source for looking at migration trends.

Key findings:

The following map (figure 2) shows the growth or decline in absolute numbers of persons aged 0 to 14 years between 1996 and 2011. It is clear that the city regions have experienced the greatest increase in the number of 0-14 year olds. Other cities and mining towns such as Rustenburg, George, East London and Makhado have also seen a net gain, as well as several small towns across the North West and KwaZulu Natal. A decrease can be found in some of the rural areas in the Eastern Cape, Limpopo and KwaZulu Natal.
Figure 2: Growth in the absolute number of population between the age of 0 and 14 years old.
Figure 3 illustrates a very different picture than the one above. Here, red indicates a significant increase in the number of persons aged 15 to 34, while blue indicates a significant decline between 1996 and 2011. There has been a considerable increase in this age cohort across all of the city regions. Cities and regional centres such as Rustenburg, Richard’s Bay, Pietermaritzburg and Mthatha have also seen a growth in the number of 15 to 35 year olds between 1996 and 2011. There has been a decrease across most parts of the country, especially in the rural parts of the Eastern Cape, Limpopo and KwaZulu Natal.
In the 35 to 64 age cohort a much less dramatic movement is noticeable (figure 4) compared to the 15 to 35 age cohort (figure 3). The movement that occurred was still significant with respect to city regions and settlements with growing mining activity.

When looking at the IEC data only three broad age categories are used namely persons of student age (18 to 24 years), persons who are economically active (25 to 55 years) and finally persons who can be part of the retirement age group (55+ years). The following map (figure 5) shows from where the economically active group has moved and the map thereafter (figure 6) shows where they have moved to. Gauteng, Limpopo, the Eastern Cape and KwaZulu Natal stand out as places of origin for the student age group while the city regions and other large employment centres, such as the mining areas of Rustenburg and Sekhukhune, seem to attract this age category. What is especially interesting is that the city region areas play an important role as a place of origin and as a destination for migrants.
Figure 5: Major flows: from Student to Economically active category - Originating LM

Figure 6: Major flows: from Student to Economically Active category – Target LM
Figure 7 below illustrates, specifically for the Gauteng city region, the percentage change in the population for each age cohort in a different colour using the 1996 age cohort as the baseline. The height of the bar indicates the percentage change over the 15 year period from 1996 to 2011. The Gauteng city region has seen a significant growth in the Young Adult Seekers cohort, meaning people who were 10-19 years old in 1996, and 25-34 years old in 2011, have increased by over 100%. Growth of this age cohort has occurred at a significant rate, higher than would be expected in terms of natural growth, indicating a high rate of in-migration. The 1996 age cohort of 0-9 (15-24 years Entrants in 2011) also increased considerably with a 65% positive change. It seems to be that the city regions, the cities and the rural areas are the places from which these groups are originating. The proportion of people over 50 years in 1996 and over 65 years in 2011, have declined significantly for the Gauteng city region. This shows that the city region mostly attract younger people. Gauteng has the lowest proportion of population aged over 65 (Peberdy, 2013), which may indicate that people are retiring elsewhere. This change can have a significant impact on the city region’s population profile.

Figure 7: Percentage (%) change per age category over 15 years for the Gauteng city region

3.2 Exploring shifts in urban poverty

**Introduction:**

South Africa has experienced an increase in the number of people and households who are living in poverty between 1996 and 2011. Here the extent and the spatial differences are explored by looking at the national picture and then at the Gauteng city region.

**Methodology:**

Firstly a poverty measure was established and then it was aligned with the CSIR settlement typology to show spatial and temporal differentiations of poverty. In a recently completed report on household income and expenditure patterns in South Africa for the year 2011 a classification on income levels per household was developed by the Bureau of Market Research (BMR) at the University of South Africa (Unisa) (BMR, 2013).
Income levels and household classification defined by the BMR were:

- **Poor** (R0 - R54 344 income per annum)
- Low emerging middle class (R54 345-R151 727 income per annum)
- Emerging middle class (R151 728-R363 930 income per annum)
- Realised middle class (R363 931-R631 120 income per annum)
- Upper middle class (R631 121-R863 906 income per annum)
- Emerging affluent (R863 907-R1 329 844 income per annum)
- **Affluent** (R1 329 845+ income per annum)

To establish the proportion of households living in poverty for this study, the *Poor* income category as defined by BMR was used. This definition cannot be directly extracted from the 2011 census income categories and these had to be adapted in order to calculate the total number of households within the *Poor* range. The first category in the 2011 census data is R0 – R48 000 per household per annum (R4000 per month). This category and a proportional number of households from the R48000 to R96000 category was added together to bring this in line with the BMR cut off of R54 355. This approach was based on the assumption that the number of households within each income bracket is equally distributed.

The 1996 census data’s first category is R0 to R24 000 per household per year. To calculate the relative 2011 income category for comparative purposes the Consumer Price Index (CPI) from 1996 to 2011 was used to inflate R24000 (1996) to establish the equivalent cut off of this group in 2011. Table 3 shows the CPI value and inflated values of R24 000. This amounts to R53 447 and is close to but slightly below the R54 344 cut off of defined by BMR. The same proportional allocation method as described above was used to add the additional amount of households to the category in order to bring it in line with the BMR categories.

<table>
<thead>
<tr>
<th>Year</th>
<th>CPI</th>
<th>Inflated value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>6.41</td>
<td>53 447</td>
</tr>
<tr>
<td>2010</td>
<td>3.37</td>
<td>50 227</td>
</tr>
<tr>
<td>2009</td>
<td>6.04</td>
<td>48 590</td>
</tr>
<tr>
<td>2008</td>
<td>9.35</td>
<td>45 822</td>
</tr>
<tr>
<td>2007</td>
<td>7.57</td>
<td>41 904</td>
</tr>
<tr>
<td>2006</td>
<td>4.82</td>
<td>38 955</td>
</tr>
<tr>
<td>2005</td>
<td>2.02</td>
<td>37 164</td>
</tr>
<tr>
<td>2004</td>
<td>2.20</td>
<td>36 428</td>
</tr>
<tr>
<td>2003</td>
<td>-1.63</td>
<td>35 644</td>
</tr>
<tr>
<td>2002</td>
<td>13.51</td>
<td>36 235</td>
</tr>
<tr>
<td>2001</td>
<td>4.59</td>
<td>31 923</td>
</tr>
<tr>
<td>2000</td>
<td>6.99</td>
<td>30 523</td>
</tr>
</tbody>
</table>
Table 3: Census 1996 household income values inflated with CPI

<table>
<thead>
<tr>
<th>Year</th>
<th>CPI</th>
<th>Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>0</td>
<td>00</td>
</tr>
<tr>
<td>1997</td>
<td>6.71</td>
<td>25 610</td>
</tr>
<tr>
<td>1998</td>
<td>8.95</td>
<td>27 903</td>
</tr>
<tr>
<td>1999</td>
<td>2.24</td>
<td>28 528</td>
</tr>
</tbody>
</table>

Key findings:

Poverty has increased nationally between 1996 and 2011, but the distribution of poverty differs significantly across space. The change in the number of households living in poverty between 1996 and 2011 are illustrated in figures 8 and 9, respectively. Blue and green indicates less than 100 households living in poverty per mesozone, while yellow indicate between 101 and 500 households living in poverty per mesozone. Orange and red illustrates areas with a very high concentration of households living in poverty, over 15 000 households per mesozone. The extent and increase in the levels of poverty can be clearly seen in the city regions. Concentrations of poverty are also seen in the Northern provinces as well as along the eastern coast of the Eastern Cape and KwaZulu Natal.

---

*Based on the CSIR mesoframe methodology, a meso-scale geoframe was developed and is the primary component of the Geospatial Analysis Platform (GAP) [http://www.gap.csir.co.za](http://www.gap.csir.co.za). The meso-scale geoframe for South Africa demarcates South Africa into a “grid” of about 25 000 mesozones of around 50km² each. They coincide with important administrative and physiographic boundaries.*
Figure 8: Number of households living in poverty per mesozone in 1996
Figure 9: Number of households living in poverty per mesozone in 2011

Figure 10 illustrates the proportion of households that were living in poverty in 1996 and 2011 for both the Gauteng city region and South Africa. The proportion of households living in poverty is higher for South Africa than for the Gauteng city region. There has been a small national increase in the proportion of households living in poverty, but the increase within the city region has been significant between 1996 and 2011.
Figure 10: Change in the proportion of households living in poverty between 1996 and 2011

Figure 11 shows the change in the number of households living in poverty between 1996 and 2011. The increase in the number of households living in poverty within the Gauteng city region is alarming. The number households living in poverty has more than tripled within only 15 years. The implications of this drastic increase of urban poverty need to be considered.

Figure 11: Number of households in the Gauteng City Region living in poverty for 1996 and 2011

The urbanisation of poverty has often been blamed on rural poverty pushing people to migrate, but even as rural poverty has declined, urbanisation has continued and urban poverty has increased. Rural poverty has generally declined and the number of rural households living in poverty is far lower than urban households living in poverty. Even though poverty is a national problem in South Africa, the Gauteng city region has experienced a drastic increase in the proportion of households living in poverty. People
living in urban areas are more dependent on cash incomes and the cost of urban living is often higher (Tacoli, 2012). South African urban settlements have complex spatial forms that further marginalised the urban poor. Urban land is often difficult to access close to economic opportunities. More affordable land and housing are located on the periphery which results in high transport costs and in long travel times (Posel et al., 2013; Turok, 2012). Those households that are living in poverty are often caught in poverty traps because of spatial inequalities and difficulties associated with entering and competing in the urban market (Tacoli, 2012; Posel et al., 2013).

3.3 Exploring shifts in inter-municipal migration

Introduction:

A general assumption has been that the dominant migrational flow is from rural to urban areas. Even though the rural-urban flow is significant, the urban-urban flow is much greater. A very large number of persons move between city regions as well as within a city region. The flows that are discussed here point toward overall migration trends.

Methodology:

Inter-municipal migration data has not been made available by StatsSA at the time of analysis, therefore to determine the extent of inter-municipal migration, data from the IEC was applied as this indicated origin and destination information. The data period represents change between 2001 and 2011. It was also decided to make a selection of only the highest flows. Using the flow data model, flow lines were created indicating all flows. Similarly origin- and destination matrices were constructed and flow lines generated to indicate only major net migration trends. It must also be noted that the IEC information only represent the migration behaviour of registered voters. It is therefore used only to understand key trends.

Key findings:

The map below (figure 12) provides an overview of national inter-municipal migration trends. The grey and blue areas signify municipalities that experienced a net outflow of population, while the orange and red signify municipalities that experienced a net gain of population through migration. Once again metropolitan municipalities stand out as net gainers of migrants. A significant migration flow occurred between the different metropolitan municipalities, most notably from eThekwini to Gauteng and from Gauteng to Cape Town. Migration flows are also strong from the rural municipalities to the metropolitan municipalities.
The analysis revealed that the largest flows of population movement occurred within and between the city regions. The various municipalities that make up the Gauteng city region (market 1 in figure 13) reflect both high in-migration and out-migration between 2001 and 2011.
Figure 13: Main inter-municipal flows (exceeding 5000) for the period 2001-2011.

Figure 14 presents a circularly composited view of municipalities with main flows exceeding 2000 people between 2001 and 2011. For the purposes of readability, the figure only represents selected flows and not the full spectrum of inter-municipal flows.
Figure 14: Circular flow diagram representing main origin and destination flows (only selected origin destination pairing municipalities with flows exceeding 2000).

In figure 14 the origin flows touch the outer ring of municipalities while flow lines stop short of destination municipalities. The number/volumes of flows are represented by the extent and numbering of the outer ring. It shows that significant migration occurs between the City of Cape Town, City of Tshwane, Ekurhuleni and the City of Johannesburg. The Gauteng city region has emerged as both a popular destination and place of origin of migrants. These high levels of inter- and intra- city region mobility warrants further investigation to explore the full extent and impact thereof.
4. OTHER CONSIDERATIONS, QUESTIONS AND IMPLICATION RELATED TO A MORE IN-DEPTH UNDERSTANDING OF MIGRATION

In addition the issues as discussed above, there are other important issues and trends to consider. Certain trends and changes have been noted and they do raise some concerns for the Gauteng city region and its role as a great place in South Africa. The changes and issues that need to be considered are changes in household size, circular migration and the ability of the city region to absorb and cope with in-moving migrants. Although the data does not provide a very clear picture, noteworthy questions are raised.

4.1 Changes in household size – a major impact

The graphs below indicate the changes in average household size between the census years of 1996, 2001 and 2011 respectively for the Gauteng city region as well as for South Africa. The average household size is has decreased slightly for the city region as well as for South Africa, but the average household size within the city region is 3 persons per household compared to the national average of 4 persons per household. It seems that average household size has stabilised in the Gauteng city region. Since the national population is still growing in size, this means that the number of households is increasing while household size is decreasing (See figures 15 and 16).

Figure 15: Change in the average household size for 1996, 2001 and 2011
The population is growing and so are the number of households, but the number of households is growing at a rate of almost double that of the population. Migration often leads to more single person households being established and that can possibly explain the decline in the average household sizes in the graph above. Youth migration is also a big contributing factor to the increase in the number of households. Previously under apartheid it was unheard of that unmarried youth moved independently from place to place, but at present this trend contributes greatly to the decline in household size (Todes, et al., 2010). The implications of this is that more housing and other supporting household infrastructure needs to be provided by government in places that attract the most labour migrants, such as the Gauteng city region. This also indicates that housing needs will differ and that appropriate typologies and forms of ownership need to be made. Entering the urban land market is especially difficult for labour migrants whom often do not have the necessary urban networks or capital to gain access to the urban land market.

4.2 The possible impact of circular migration – a big unknown

Internal circular and labour migration was associated with influx controls and the Apartheid government and it was a general assumption that circular migration would decline rapidly in the 1990s (Beukes, 2013). Since then, circular migration data needs has not been sufficiently addressed and the relationship between household of origin and destination is neglected (Posel, 2004). Understanding this relationship is essential when distinguishing between temporary and permanent migration (Beukes, 2013).

Circular migration leads to households often having a rural as well as an urban base and that an individual member of the household moves back and forth between the two. Because of the close relationship between rural and urban households, rural households are very much affected by urban social and health problems (Hemson et al. 2004). Circular migration also provides many rural households with opportunities that would have otherwise been out of reach (Beukes, 2013).

The above analyses of change in household size and numbers revealed that household sizes have generally declined between 1996 and 2011, but total population has increased. This means that the number of households has increased significantly in this time. The reasons behind the increase in the number of households are mostly unclear. One possible explanation may be that circular migration is declining because new permanent households are established by migrants. Another possible explanation may be that circular migration is increasing as more households are split up as a migrant household.
member establishes another, more temporary household in another settlement. Distinguishing between a temporary and a permanent household is very important in determining if a migrational move is circular or permanent.

In a study by Posel and Marx (2011) the relationship between urban land markets and migration patterns were investigated. They looked at how the conditions at the destination affect the nature of migration and particularly if the migration is permanent or temporary. They found that the ability of migrants to access the urban land market directly influences their decision on returning to their household of origin or not, thereby affecting the nature and form of migration. If migrants can easily access housing and services in their new settlement, they are more likely to settle there permanently. Considering the difficulty that is generally experienced by migrants in accessing the urban economy and urban land markets, it may indicate that circular migration is continuing (Posel, 2004).

Recently, the 2011 Gauteng City Region Observatory Quality of Life Survey revealed that 46% of migrants in Gauteng consider Gauteng their home (Peberdy, 2013). This may indicate that the remaining 54% of migrants in Gauteng are there only on a temporary basis and intend to return to their household of origin. This does not answer any questions, but rather reveal more around the state of circular migration. When data is limited or insufficient, research concepts are often manipulated to be compatible with the data that is available. This can lead to misinterpretation of observations and ultimately false conclusions (Morrison, as cited by Beukes 2013: 26). The need for data on circular migration is not just a local issue and the need is increasing (Skeldon, 2012) as it has been proven that this form of migration influences health, infrastructure and households; therefore a comprehensive understanding thereof is essential to the process of assembling evidence for government planning (Beukes, 2013).

4.3 The ability to absorb newcomers – a remaining question

For the Gauteng city region to be truly great and to address inequalities, it needs to be able to absorb and accommodate the people that are attracted to the region. From the analyses in the previous sections, it can be clearly seen that the city region is experiencing an influx of people, especially of young, economically active people. Providing services and jobs to these in-migrants is fundamental to their ability to make a living in the Gauteng city region. Two factors are used to check the ability of the Gauteng city region to absorb or accommodate the growth it is experiencing: (a) access to services, and (b) access to employment. The level of change in access to employment and good services was used as the absorption indicator.

A composite value for access to services was determined by calculating the average number of households who received either good or not-so-good service based on the level of access to: energy source for lighting; refuse removal; toilet facilities; and water source. The combination of variables per service type used to determine the binary classification is put forward below.

<table>
<thead>
<tr>
<th>Source</th>
<th>Electricity</th>
<th>Candles</th>
<th>Gas</th>
<th>Paraffin</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access</td>
<td>Good</td>
<td>Not-so-good</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4: Binary classification of source of lighting

<table>
<thead>
<tr>
<th>Service</th>
<th>Communal refuse dump</th>
<th>No rubbish disposal</th>
<th>Own refuse dump</th>
<th>Other</th>
<th>Removed by local authority</th>
<th>Removed by local authority less often</th>
</tr>
</thead>
</table>

ISBN: 978-0-86970-781-4
Table 5: Binary classification of type of refuse service

<table>
<thead>
<tr>
<th>Access</th>
<th>Flush or chemical toilet</th>
<th>Bucket latrine</th>
<th>Pit latrine</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not-so-good</td>
<td>Good</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 6: Binary classification of type of toilet

<table>
<thead>
<tr>
<th>Service</th>
<th>No access to piped water</th>
<th>Public tap</th>
<th>Other</th>
<th>Piped water in dwelling</th>
<th>Piped water on site</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access</td>
<td>Not so good</td>
<td>Good</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 7: Binary classification of water service

After the binary classification of all four types of services the average number of households receiving good and not-so-good services was calculated. Based on this, the change between 1996 and 2011 could be determined.

The Gauteng city region generally enjoys high levels of access to good services, where close to 90% of households have access to good services (see figure 17). The level of access to good services is also much higher for the city region than the national average. The growth in access to good services in the city region has been small at an average of 6.3% for all services between 1996 and 2011 (see figure 18). Between 1996 and 2011 households have increased by over 50% in the city region, which raises concerns about the ability of the region to accommodate and absorb the influx of households. Considering that the levels of services have increased despite the influx of households, does indicate that household service needs are being met, but that backlogs are possibly not being addressed.
In figure 19 the level of employment for the Gauteng city region is shown and compared to the national level of employment. The change in the level of employment between 1996 and 2011 for the Gauteng city region and South Africa is also shown. The city region has a higher level of employment than the national average, but the growth in level of employment for the region between 1996 and 2011 has been small.
A survey done by the Human Sciences Research Council revealed that the majority of migrants cite ‘employment-related issues’ as their main reason for moving to a certain location (Wentzel, Viljoen, & Kok, 2006). Access to opportunity remains an important factor in the decision-making process of a household or household member wanting to migrate.

People are increasingly moving to places where they can access social grants, housing, health services and education. Access to services and infrastructure is a motivating factor for some migrants (Cross, 2009). Limited access to low cost and affordable housing, together with the high cost of living in urban areas has also been argued to cause continuing circular migration (Posel & Marx, 2011). It has been found that migrants living in cities were expected to not have the same sort of access to good services as permanent or long term residents do (Bennet, et al., 2014).

However, access to basic services and employment is just two of the aspects that provide an indication of absorption capacity. Others that need to be considered include access to health, education and social amenities, to name but only a few. Using accessibility to measure the absorption ability of a settlement of region is a complex exercise and warrants further investigation.

5. CONCLUSION

This paper has clearly indicated that even though poverty has been perceived as largely a rural issue, the urbanisation of poverty is in fact occurring at a large scale and city regions, especially the Gauteng city region, are dealing with an enormous and increasing number of poor people. Also the attractiveness of city regions has caused a great increase in the proportion of young work seekers. What also emerged, from the research, is the fact that the biggest proportion of migration is occurring between metropolitan areas and not only a rural-urban process as generally assumed.

In a place such as the Gauteng city region which attracts a large proportion of migrants, the population is unlikely to be stable, given that real growth occurs over long periods of time. The population turnover is significant as the labour market forces draw in and discards labour force participants (Götz, as cited by Beukes, 2013). With a significant proportion of the population growth being within that of the economically active age cohorts, the stability of the labour market is essential. In the context of their powerful pull factors, the responsibility falls on city regions such as the Gauteng city region to be able
to absorb migrants and to provide them with basic services and an environment where the economic opportunities that they need to enter the urban labour market, can be accessed and established.

The population is continuing to increase despite the relative poverty in the region. Great concerns exist around the ability of city regions to provide sufficient opportunities to its ever increasing population. Even though the Gauteng city region has a smaller proportion of households living in poverty than what is found nationally, this proportion is increasing drastically. But in-migration to the Gauteng city region will continue for as long as relative economic issues persist in the other provinces. The opportunities that exist in the city region will continue to attract migrants from across the country.

Some issues remain uncertain and need further exploration. Much speculation is taking place on the effect of changing household size and continuing circular migration, and a better understanding is needed in order for government and policy to respond appropriately. What is also uncertain at the moment is the ability of city regions, as well as other settlement types, to absorb the in-moving population. There are many factors that influence the absorption ability of a settlement or region, and these factors need to be investigated so that an appropriate response can be formed.

This paper has illustrated that the Gauteng city region has cemented its status as a great place; people have continued to move to the region in search of opportunity and it seems that they will continue to do so in the future. The onus now rests on government to maintain this status and to ensure that the growing population of the city region has access to the opportunities they came in search of by address these issues raised in an innovate and sustainable manner.

6. REFERENCES


Beukes, A. 2013. A research synthesis of internal labour migration trends in post-Apartheid South Africa. Research report submitted in partial fulfilment of the requirements for the degree Bachelor of Town and Regional Planning in the Faculty of Engineering, Built Environment and Information Technology, University of Pretoria.


Cross, C. 2009. Migration in relation to services. Centre for Poverty, Employment and Growth. HSRC.


Measuring Access to Primary Health Care: Use of a GIS-Based Accessibility Analysis

Hunadi Mokgalaka
Candidate Researcher
Built Environment, Council for Scientific and Industrial Research
P O Box 395, Pretoria, 0001, South Africa
Tel: +27 12- 841- 4474 / Fax: +27 12- 841-4036
Email: hmokgalaka@csir.co.za

Abstract

Spatial analytical tools and analyses are key enabling instruments which can be used to efficiently plan for public-spaces such as health care facilities in a metropolitan context. Improving the levels of access to public-spaces through various planning approaches is necessary especially in light of the magnitude of development in metropolitan areas. However, planning for the provision of services in the health care sector is somewhat more complicated than planning for any other type of service. In the perfect world, health service delivery systems would be able to cater for all the health care needs of the entire population. However, realistically speaking, this has currently proven unattainable as the health care needs of people differ along many dimensions. Health care service planning requires consideration of a range of issues when looking at serving the health care needs of a spatially dispersed population. From the perspective of the provider, the challenge is therefore to optimally provide services in such a way that the health care needs of the greatest number of people are served. Recent increases in the availability of Geographical Information Systems (GIS) and associated modelling approaches have provided a good basis for the planning for the need of public services. Successful applications of these approaches have been useful in indicating average accessibility of an existing or potential service. However, it is increasingly realised that there has been a growing need for a paradigm shift in planning approaches. The spatial planning of primary health care services based on GIS accessibility analysis has only been used to a very limited extent in South Africa. In this study, facility utilisation rates in the form of headcounts are incorporated in a GIS-based accessibility analysis to assist in the spatial planning of health care services. Due to the absence of accurate patient databases and / or registers, GIS tools are used to determine three different scenarios of defining public primary health care demand. The three scenarios are tested in a GIS-based form of catchment area modelling. The results show no significant difference in the spatial extent of the catchment areas of facilities but a significant increase in the allocated demand from scenario 1 through to scenario 3. When compared to the facility headcounts, the total allocated demand in scenario 3 tends to be more strongly in line with the total number of facility headcounts recorded in the city showing a moderate positive correlation. This type of analysis promotes and facilitates the development of future facility plans in relation to actual demand and usage, and also improving current service provision access at overburdened focal points where previously not realised.

Keywords: Accessibility, Utilisation, Health Care, Services, Planning, GIS

1. INTRODUCTION

One of the primary objectives when publicly providing health care services is to achieve social and spatial equity. The concept of equity has been known to connote fairness and justice in the distribution of resources and liabilities in any society (Samuel & Adagbas, 2014:270). For instance, the distribution of health care resources must be in balance with the need of the population. But then again health care, like many services that are provided as a public good, is not equally available and accessible by all individuals.
A decision to locate any public facility in a geographic area is essentially to distribute a certain type of public service among different groups of people. Such decision making is intended, in some way, to equitably provide the services for various groups in the population. Basic to this decision making is the concept of access. Two important geographical perspectives on health care service access can be distinguished: (1) Accessibility (potential accessibility) - availability of a service and means of reaching it; and (2) Utilisation (revealed accessibility) - actual use of available services. This study mainly deals with the first perspective by particularly using a service access planning approach to determine public primary health care demand in a metropolitan context. The approach is then supplemented by incorporating the facility utilisation statistics as related to the second perspective.

Access to health care

Political changes during the past decades have increased people’s movement and this has given rise to a number of challenges about serving the basic health care needs of a dispersed population. Depending on the development context of a country, the way in which access is looked at will differ. Gulliford and Morgan (2003:1) state that in low-income countries problems of access concern the availability and accessibility of basic services such as the ability to visit a doctor or to receive health care during pregnancy and delivery for example. Whereas in affluent countries basic services are generally accessible, questions of access concern the degree of comprehensiveness that can be offered by health care systems, the extent to which equity is achieved, and the timeless and outcomes of care (Gulliford & Morgan, 2003:1).

Poor levels of access to health care services by the population have become a major concern in developing countries. In Sub-Saharan Africa one of the main problems with health care service provision is that it is often not accessible to those in need. The provision of adequate health care services, particularly in urban areas, is becoming more difficult because of the outcome of three developments; (1) the rapid growth of cities and their population, (2) urbanisation of poverty, and (3) slow economic growth (Amer; 2007:3). These continuous developments have led to increased population densities in urban areas with limited health care resources which result in, for example, shortage of resources in facilities, long queues and increased waiting times.

In South Africa people often face great inconvenience, travel long distances and visit more than one service point to obtain the health care services they need from government facilities (DPSA, 2011). This is due to the fact that some of these people form part of the low-income population who tend to reside in the more peripheral locations of the urban areas or marginalised areas of the city. This shows that while some areas of South African cities are well connected and integrated within the areas surrounding them, others are not. Besides that fact that these areas have a poor level of macro-accessibility as a result of their peripheral location in relation to major metropolitan facilities (e.g. hospitals.), these areas also generally suffer from a low level of service availability, quality and accessibility in relation to local-population serving facilities such as clinics and community health centres (Green et al., 1997:1-1). This point is also made by Samuel and Adagbas (2014:267) when they state that many urban dwellers especially in the Sub-Saharan Africa have to travel long distances within the urban space to access basic health services. In addition most low-income and marginalised people’s mobility is usually determined by their economic conditions.

Towards improved spatial access

It is widely acknowledged that the provision of services should be planned so as to effectively contribute to the development of quality living environment. While it is important for the sectors responsible for the provision of health care services to locate facilities in such a way as to serve the majority of the population, it is also important to note that metropolitan areas, however, are dynamic and continue to develop and expand with time. The last few years have seen South African metropolitan areas increase in population densities and thus putting more pressure on already overburdened service delivery systems. The challenge for health care planners is thus to adequately plan for the provision health care
services to the greatest number of people, taking into account future demand while efficiently using current deficient resources.

Service provision for publicly provided facilities with quality services and infrastructure for improved access is better approached through proper planning. The spatial planning of health care services involves aspects of resource allocation. Access to health care facilities is one of the important facets in the health care planning process. Given the spatial perspective of this study, performance is then assessed in terms of geographical access levels of the services by potential users. GIS-based accessibility analysis is a logical method which can be applied to measure the degree to which geographical access is obtained. It has recently been used to approximate the degree of health care need and/or forecast health care demand in a number of studies (e.g. McGrail, 2012; Al-Tair et al., 2010, Apparicio & Ségui, 2006, Bagheri et al., 2005 & Lin et al., 2005). Simply put, GIS-based accessibility analysis is a relational evaluation of services relative to potential user’s demand measured within a specified distance range and using a detailed road network. This type of analysis is therefore not a simple service-to-population ratio. A key advantage of measuring accessibility is that the measurements take into account service sufficiency (capacity) with respect to its location.

2. LITERATURE REVIEW

Although access is in the first instance a spatial condition, it is now a key concept in service planning. However, as current deliberations have indicated, there has been considerable confusion about what the concept of access means. It is therefore important to mention at the outset that the definition used will depend on the aim and context of the study. The aim of this research as a whole was to determine public primary health care demand. This means that the focus here was the relationship between the location of services and the location of clients taking into account travel resources, time and/or distance (Penchansky and Thomas, 1981:128). Thus access has been used here to refer to:

‘When considering people, accessibility is about “the ease with which any individual or group of people can reach an opportunity or defined set of opportunities”; this is often referred to as origin accessibility. When considering service providers, accessibility is “the ease with which a given destination can be reached from an origin or set of origins” (Simmonds et al., 1998); this is usually referred to as destination accessibility, catchment accessibility or facility accessibility.’ Halden et al. (2005:3)

Therefore the overall level of accessibility, be it potential or revealed, can be used as an indicator of the health service delivery system’s performance. Literature has highlighted that measuring the performance of a health care service delivery system has become a challenge. This challenge is compounded by the task of translating the relevant data into a format that is clear and persuasive to policymakers and funding agencies (Phillips et al., 2000:971).

Data is fundamental to any type of research. A key factor in strategic and operational planning is the availability of appropriate data and information, which can be used in decision-making (Abbot, 1996:2). The successful completion of any research depends critically on timely, organised and accurate data. But when it comes to health services research data is often unavailable or provided at different temporal and spatial scales. This is particularly true for South Africa, and Scott et al. (2002) drew attention to the limitations of existing data sources in a study that focused on creating a health information system for cancer patients in KwaZulu-Natal. Just to mention a few, the limitations include (1) privacy and confidentiality restrictions limiting access to data about health status and health outcomes especially for individuals or for small areas, (2) data on health care utilisation and treatments are often proprietary, controlled by health insurers and provider organisations, and (3) for public data, there are problems with compatibility and sharing of information among agencies (McLafferty, 2003:37).

Nevertheless, the use of GIS in South Africa for assessing service provision and developing facility plans leading to improvements in governance and equitable service delivery is well underway. There is a developing need to focus on improved measures of access to local public facilities, and the need to
find practical tools to support and improve current facility planning practice (Green et al; 1997:1-1). The traditional approach to measuring access, for years, has been the number of facilities to population ratio as a measure of availability by the distance or time travelled to the nearest or by the number of facilities in a geographic area. These measures, however, do not handle properly such peculiarities as the use of services in other communities, the failure to use the nearest facility, overlapping coverages, redundant services (Rosero-Bixby, 2004:1273). In addition, measuring accessibility using GIS is generally based on the assumption of rational behaviour that users will minimise travel distances to access services and that people will not choose to use overburdened facilities. However, depending on the type of service analysed, people’s choice of facility may not be guided by proximity alone. It can, for example, be guided by the capacity available at the facility and / or their perception regarding the quality of service they will receive.

Talen (2003, in Higgs, 2004: 123) has described a number of measures applied when measuring accessibility such as container, coverage, gravity, travel time and distance. The most basic container measures compare the supply of services with the potential demand for services in a defined area (Higgs, 2004: 122-3). Such measures look at, for example, the number of hospitals per hundred thousand people in an area while assuming that there is no cross boundary flow of people from adjoining areas. This may overestimate the actual supply of services to the population, or the other way around. To overcome such shortcomings, GIS and related network analysis tools have been used to allocate the flows from demand origins to one or more supply centres, and use this to demarcate supply centre catchment areas, or estimate the flows attracted by each supply centre (Morojele et al., 2003:6). This type of analysis is not container based, however allocation to a facility (potential accessibility) does not guarantee utilisation (revealed accessibility) of the services available. Intuitively, there could be a significant gap between potential and revealed accessibility (Lin et al., 2005:1882). This is because people may, in some instances, travel outside of their place of residence to seek the desired services elsewhere than from their closest facility. Documented empirical studies that have focused on the actual utilisation or revealed accessibility are usually much more limited (Lin et al., 2005:1881). The actual level of discrepancy has not been studied extensively, therefore it is difficult to accept or discredit a GIS-based approach.

An important facet of this study has to do with revealed access to facilities based on actual usage and origins of users at each facility. This, in a way, responds to the need of measuring access by the level of use and not simply by the presence of a facility. However, this is complex since there is no direct correspondence between need and use. McLafferty (2003:27), for example, has pointed out that although utilisation may not reflect need, it may reflect contextual and service related factors such as service affordability. It was found in the literature that research on the actual utilisation of the available health care services has not been looked into extensively. The absence of health service utilisation databases such as digital patient registers has been recognised as a gap in existing research while there is ample evidence on the need for this type of analyses that incorporate utilisation rates.

3. OBJECTIVES / RESEARCH QUESTIONS

The overall aim of this research as a whole was to determine, based on the current population, what and where the current demand for public health care is. To achieve the above aim three inter-related objectives are set within the context of GIS-based accessibility analysis:

1. To determine three public primary health care demand scenarios based on a combination on three variables.
2. To model potential catchment areas of the selected facilities using the demand scenarios.
3. To compare utilisation data available (in the form of headcounts) with the current capacity or threshold and also with the demand that has been allocated in terms of the catchment area analysis.

4. APPROACH & METHODOLOGY

Study area
The study area is the City of Johannesburg in the Gauteng province; the largest of the nine South African Metropolitan Municipalities in terms of population and local government budget and revenue. From the north side it stretches from the City of Tshwane to the south side of Emfuleni Local Municipality. Its eastern and western boundaries stretch towards Ekurhuleni Municipality and Mogale City respectively. This highly urbanised City is divided into seven administration or planning regions: A-G. The boundaries of these seven regions are shown in Error! Reference source not found.. Service delivery direction within the City is set and incorporated within these regions (Richards et al., 2006:17).

According to StatsSA 2011 Census, the City of Johannesburg had a total population of 4 434 827 people made up primarily of a young population aged between 30 and 39 years. This total population translates roughly into 1.3 million households (2011 City of Johannesburg Integrated Development Plan). The City of Johannesburg remains one of the quickest growing locations globally (Ahmad et al., 2010:5).

According to StatsSA Census, between the years 2001 and 2011 the city’s population increased by 27%. Rapid population growth in the City has been attributed to in-migration. With the inner city seen as the core of economic production, areas such as Hillbrow and Yeoville have experienced a great influx of people and rapid occupancy by migrants seeking employment. The visible results of this urban growth magnitude occur in the form of substandard housing and overcrowding. According to the Johannesburg Development Agency (2013) the City of Johannesburg is the leading metropolitan gateway for migrants from other provinces across South Africa as well as international migrant, and as an economic, is the first choice of destination by job seekers. In a context of rapidly shifting settlement dynamics, the City of Johannesburg faces the challenge of providing quality services at affordable rates to all residents (Van Rooyen et al., 2009:65). The high and middle income groups live largely in the suburbs of Randburg, Rosebank, Sandton and Midrand which are located in the centre of the municipality and towards the north. In the high dense areas of the southern suburbs and on the north periphery lives the low income population; these are areas such as Soweto, Ivory Park, Diepsloot and Alexandra. These areas host extremes of poverty, high density informal settlement and informal trade (Ahmad et al., 2010:5). Most of these informal settlements lack proper roads, access to piped water and have poor sanitation.
Figure 22: 2011 Population Distribution in the City of Johannesburg
Generic Data Collection and Preparation

City of Johannesburg:

A spatial layer of the City of Johannesburg was obtained from the Council for Scientific and Industrial Research (CSIR). This layer was used to produce spatially smaller analysis units of hexagons of 20 hectares each. In dividing the spatial layer into hexagons, the total area taken into account coincides with the city borders or boundaries. The reason for using the hexagons as analysis units is that it allows the analysis output to be produced on a more detailed level than working with, for instance sub-places, which allows the identification of problem areas more accurately (Green et al., 2012:6). Secondly, the hexagons give a better distance estimate as the radius is the same for all points on the perimeter. A set of the 2008 Eskom’s Spot Building Count (SBC) for the City of Johannesburg was also obtained from CSIR to be used as a proxy layer for the population distribution within the City.

Population data:

The population data was acquired from StatsSA and based on the Census 2011. The City’s total population served as the basis for determining the demand for health care services. When working with health care services, the data requires specific age (based on two age groupings of >5 and <5 years) and income breakdown. Following income group studies by Van Wyk and Van Aardt (2008:5), the StatsSA 2001 census income groups (R0-R9 600, R9 601-R38 400, R38 401-R153 600, R153 601-R614 400, R614 400+) were adjusted with the change in consumer price index (CPI) between 2001 and 2011. The groups therefore changed to R0-R17 200, R17 201-R68 500, R68 501-R273 800, R273 801-R1 095 200 and R1 095 200+. The adjusted income groups were then amended to coincide with the 2011 Census income groupings of R0-R19 200, R19 201-R76 800, R76 801-R307 200, R307 201-R1 228 800 and R1 229 801+. The first two groups were consolidated into the low income, the second group became middle income and the last two groups became high income.

Transport network:

A 2010 AfriGIS (Pty) Ltd version routable vector layer of the provincial and major roads, including the in-depth street centre lines of the study area was obtained from the CSIR. The road network was based on a subset of the transport network data used in an earlier accessibility study of the City of Johannesburg by the CSIR. This subset could be readily used since the attribute data was thus already cleaned and prepared when obtained. The road network was sufficiently complete and highly accurate as it covered the complete road and street network of the study area. A road network was used for the reason that it takes into consideration the natural and the built environment of the study area and can therefore accurately simulate the way in which people would travel to facilities contradictory to using straight-line distance.

Facility data:

The 2011 facility dataset was obtained from the Gauteng Provincial Health Department (GPDH). The facilities selected for the analysis were mainly those that offered primary health care services. This simply means those facilities that would act as a first point with the health care delivery system. These were facilities offering level one services of the primary health care package and thus excluded those facilities offering trauma and casualty services. The facilities were further selected on the basis of the following criteria:

1. Administered by the public sector,
2. Had a fixed geographical location,
3. Had accessible attribute data about professional nurse clinical work days, facility operating days and hours.
4. Had the total headcounts for year 2011. A database of the headcounts (actual usage rates) of the actual visits to the facilities of the study area, recorded per facility, was obtained.
All facilities that met the above selection criteria were analysed. In total they were 10 Community Health Centres (CHCs) and 106 Clinics, thus 116 in total. Using the capacity calculation equation (see Mokgalaka et al., 2014), as developed by the CSIR, each facility was separately specified a capacity, i.e. translated into the potential to accommodate visits (visits to a professional nurse in a facility).

ETR.Net data:

Since there was no residential address database of all the patients who visit the City’s primary health care facilities, a 2011 Electronic Tuberculosis Register (ETR.Net data) was considered as a good proxy or representation to serve as revealed demand data in this study. This was considered a good representative sample of actual visits because the patient register stores data from the initial visit (first contact visit before knowing health status) that people made before the TB diagnosis. Literature (Al-Taiaar et al., 2010 and Scott et al., 2002) has also highlighted the practicality of using population based cancer and TB registers as good potential patient register proxy datasets as they comprise the patient’s residential addresses. A soft-copy database of TB patient records was obtained from GPDH.

Access standard:

Access standards are of cardinal importance in an accessibility analysis as they can either determine or indicate, spatially, the level of access of a facility. In addition, if no distance is set or set too high then all demand will be counted for at all facilities. The 5km National Department of Health Standard for primary health care was applied in this study (see National Department of Health, 2011 & 2000). The 5km travel distance standard was positively applied in this study because it was also specifically tailored based of the socio-economic context of the study area in question by the CSIR together with the GPDH for an accessibility study in 2012 (see Green et al., 2012). The socio-economic aspect was taken into consideration as this has an influence on the kind of transport mode mostly likely to be available and used, which in turn influences the ease with which people can access a given facility within a given distance (Mokgalaka et al., 2011:4). This 5km travel distance standard equates to a normal walking time of a maximum of one hour.

Population Data Manipulation

The population demand for public primary health care was considered to be all the people who do not have medical aid insurance, i.e. the uninsured population. Three methods to calculate the uninsured population were derived based on a combination of three variables from the population data: (a) household income category, (b) age, and (c) average facility visits. The three methods are labelled scenarios for (ease of) reference in this paper and the following discussions specifies how they were determined.

Calculating uninsured population

In order to determine public primary health care demand in the City of Johannesburg, the target population was considered to be the uninsured population, i.e. those people without medical aid coverage. In this study it was assumed that people without medical aid coverage were most likely to use primary health care facilities provided by government as a first point of contact with the health care delivery system. Three scenario types of uninsured population were determined. These scenarios were derived using the 2011 General Household Survey (GHS) data on medical aid coverage by total annual household income and the 2011 Census population data. For the reason that the GHS data was only available on the lowest spatial level of metropolitan area and non-metropolitan area distinction, data was then acquired on a provincial level. This is because it was going to be difficult to extract only the City of Johannesburg data from the Gauteng Provincial level data since this province has three metropolitan areas, namely City of Johannesburg, City of Tshwane and Ekurhuleni Metropolitan Area. Based on the GHS data it was then determined that in 2011 75% of population in the Gauteng Province were medically uninsured and 25% medically insured. This ratios were then applied to the total
population of City of Johannesburg for the 2011 Census population data 2011: 4 434 828 * 0.25 = 1 105 841 insured population and 4 434 828 * 0.75 = 3 328 987 uninsured population. The resultant data was then manipulated accordingly for the three scenario types:

i. **Scenario 1**: the status of uninsured was proportionally allocated to the population in each income category using the uninsured population global total for the study area as the control variable. The ratios as provided by StatsSA were as follows:
   
   R0 – R19 600 = 84%
   R19 600 – R76 400 = 92%
   >R76 400 = 47%

ii. **Scenario 2**: all persons in the low income group and 50% of persons in the middle income group were assigned the status of uninsured.

iii. **Scenario 3**: persons from the highest income category were first assigned the status of “insured” (insured population estimate as determined above to be 1 105 841 people or 25% of the total population), and then people from the next highest income category and so on until the total insured population number has been assigned. Once the total number of insured population was reached, the remainder of the population was then considered to be uninsured.

The uninsured population for each scenario were then translated into potential visits likely to be generated by the population. In accordance to the information supplied by the GPDH and the eThekwini Department of Health for the Geographic Accessibility Study of Social Facility and Government Service Points for the Metropolitan Cities of Johannesburg and eThekwini by the CSIR in 2012, demand (total number of health visits) was calculated on the agreed assumption that for every child (5 years and younger): 5 visits would be generated in eThekwini and 4 visits in Gauteng per year; and for all persons older than 5 years: 3.5 visits in eThekwini and 3 in Gauteng per year were considered adequate (Green et al., 2012:9). The visits assumption for eThekwini was also applied in the 2008 study by the CSIR on Accessibility Mapping and Optimisation of Community Social Services in the eThekwini Metropolitan Area (Green et al., 2008:4-1). In this study the count of 4 annual visits for >5 years and 2 annual visits for <5 years for City of Johannesburg which emanated from the countrywide 2011 PHC Utilisation study conducted by the Health Systems Trust (2011, HST) was applied. Meaning that the >5 years uninsured population were multiplied by 4 and <5 by 2. This resulted in the following total visits for each scenario:

i. **Scenario 1** = 7 124 518 visits per annum

ii. **Scenario 2** = 7 149 055 visits per annum

iii. **Scenario 3** = 7 416 886 visits per annum

The visits per scenario were then accurately distributed on to the analysis units using the principles of dysametric mapping (see Mans, 2012). It is after this data manipulation process that the analysis was undertaken. The data was set up in such a way that the analysis procedures were rerun for each scenario.

Data Analysis

The steps taken to achieve the objectives mentioned above in Section 3 are briefly outlined. The analysis was essentially based on the iterative use of two GIS softwares; a customised GIS software known as Flowmap and ESRI’s ARCGIS. Flowmap was developed by the University of Utrecht’s Department of Geographical Sciences specifically for undertaking accessibility analysis for the strategic evaluation of sets of facilities based on both distance and capacity.

The first step in the analysis was to determine the travel distance from all the areas in the City of Johannesburg to the closest primary health care facility. This step was solely based on travel distance to each facility and thus excluded the capacity parameter. This means that the capacity of the facility to accommodate the visits was not taken into consideration. Apart from placing the study area in an accessibility spatial context, this step was done to essentially indicate (1) the distribution of the facilities within the study area, (2) the relative locations of the areas with regards to the facilities and also (3) to show the catchments areas of these facilities irrespective of distance.
GIS tools were applied to model the current situation of potential accessibility with regards to capacity and location of facilities. Using the Flowmap GIS tool, a GIS-based form of catchment allocation modelling was applied to allocate the demand from each origin area (residence) to the closest facility (destination) using a road network. Each origin location represented a value which indicates the demand (scenarios as determined in sub-section 4.3.1), and each destination location has a value which indicates its facility’s maximum capacity, or maximum amount of demand it can serve. The assignment allocates origins within a specified access range to the nearest facility with capacity, and stopping the assignment either when capacity has been reached, or when the access range (distance standard) is exceeded. Access routes to facilities are limited to access via a road network where a five km travel distance standard is set. The analysis subsequently demarcates catchment areas around each facility.

The modelled demand from the catchment area analysis results (allocated demand) from each of the three scenarios were compared with actual usage rates in the form of headcounts per facility. The headcounts or visits were recorded by the City for the 2011 calendar year. The comparison was done by using the Pearson’s correlation coefficient in Microsoft Office Excel 2010 package to determine the relationship between the two variables. That is the relationship between the modelled demand allocated to each facility and headcounts (visits) per facility. This was done fundamentally to examine whether the total demand modelled or allocated per facility correlate with the number of visits actually generated by the city population in the study year. The last task is to use the geocoded addresses from patient register and examine whether the patients used their closest the facility and also to give insight as to how far people actually travelled to seek the health services they needed.

5. RESEARCH ANALYSIS & FINDINGS / RESULTS

As set out in Section 4 above, three sets of demand scenarios were analysed. The three scenarios were analysed to assess the spatial distribution of the population demand relative to the distributions of facilities in general. Although the data and process undertook were discussed in more detail in Section 4, Table 6: Criteria and processes for primary health care analyses below summarises the criteria and processes undertaken in terms of analysing the scenarios in relation to the facilities within the study area.

Table 6: Criteria and processes for primary health care analyses

<table>
<thead>
<tr>
<th>Description</th>
<th>The facilities selected for the analysis are mainly those that offered public primary health care services and acted as first point of contact with the health service delivery system. Attached to the facility data are attribute data indicating the capacity of the facility.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilities analysed</td>
<td>116 primary health care facilities with fixed locations (Clinics and Community Health Centres)</td>
</tr>
</tbody>
</table>
| Demand                                                                     | A. Scenario 1 = 7 124 518 visits per annum  
B. Scenario 2 = 7 149 055 visits per annum  
C. Scenario 3 = 7 416 886 visits per annum                                                                                          |
| Supply                                                                     | Each facility was separately specified a capacity, i.e. translated into the potential to accommodate visits (visits to a professional nurse in a facility).                                                                 |
| Travel mode and access distance                                            | Transport via existing road network, with a distance travel standard: Facilities must be accessed within 5km (National Health Standard)                                                                 |
| Analyses undertaken                                                        | i. Model catchment areas of facilities for each scenario based on capacity and maximum travel distance standard  
ii. Compare utilisation data (in the form of headcounts) with the current capacity or threshold and also with the demand that has been allocated in terms of the catchment area analysis  
iii. Using the patient register, examine whether the patients used their closest the facility                                                                 |

International Convention Centre (ICC), Durban, South Africa  
ISBN: 978-0-86970-781-4  
226
6. RESULTS AND FINDINGS

Figure 21: Travel distance to closest primary health care facility is a travel distance map for all the population to their closest primary health care facility. Simply put, this means how far people must travel to reach their closest facility if the capacities of the facilities are not taken into consideration. This map then just indicates travel distance to the closest facility. The dark green colours in the first lowest distance bands represent locations that are closest to a facility, while the shades of lime green, yellow to red represents locations that are the furthest from facilities. The areas shaded with a white colour are in most cases areas with no population.

This map only depicts an evaluation of the distance to travel to the closest facility but does not reflect any measure of the facility size or service capacity versus demand. Since the capacity of the facilities was not considered, the travel distance map indicates that the majority of the City’s population can reach a facility within a travel distance of 5 km. The 53% of the City’s population is within 2km and 93% within 5km of a facility. This is particularly good given that the national travel distance standard for primary health care is 5km.

Looking at the travel distance map it can also be deduced that locations of primary health care facilities in the study area are in general well located. The study area has more facilities located in the high population density areas of Region G while low population density and/or sparsely areas of Region A and B have fewer facilities. This shows that the facilities are adequately distributed as they are more in line with the population growth patterns of the study area as a whole.

Figure 22: Facility catchments areas irrespective of distance is a map of the catchment areas of the facilities irrespective of distance and capacity while Figure 23: Allocated demand in distance band (capacity & access distance constrained) is the inverse. Figure 22: Facility catchments areas irrespective of distance is just a simple indication that when capacity and distance parameters are not set, all the demand in the City will be counted for at all facilities. On the other hand, Figure 23: Allocated demand in distance band (capacity & access distance constrained) indicates the catchment areas in distance bands of the facilities taking into account distance and capacity. It can be noticed that most of the facilities in Region D appear to have catchment areas up to 2km travel distance. This could be due to one of the following reasons; (1) mainly as a result of the closest facilities being technically fully allocated to people living closer to the facility and thus being in reality overburdened or (2) in high density areas, the facility being too small to cope with the local demand or there are few facilities for the total demand in the area.

Figure 24: Scenario 1 total allocated demand and catchment areas (capacity & access distance constrained), Figure 25: Scenario 2 total allocated demand and catchment areas (capacity & access distance constrained) and Figure 26: Scenario 3 total allocated demand and catchment areas (capacity & access distance constrained) indicate the catchment areas of each of the facilities for Scenario 1, 2 and 3 respectively. The catchment area analysis is the same for all the three scenarios; constrained analysis limited by facility capacity and a 5 km travel distance. There is no significant difference in the spatial extent of the catchment areas of the facilities across the three scenarios but that there is a significant demand increase in the number of allocated demand per scenario: scenario 1 (6 711 292) < scenario 2 (6 828 738) < scenario 3 (7 120 648).

The only noticeable difference between the three figures is the catchment area of Rosebank Clinic facility as indicated by the circles in Figure 24: Scenario 1 total allocated demand and catchment areas (capacity & access distance constrained), Figure 25: Scenario 2 total allocated demand and catchment areas (capacity & access distance constrained) and Figure 26: Scenario 3 total allocated demand and catchment areas (capacity & access distance constrained). The facility appears to be spatially accommodating fewer demand areas in Scenario 1 compared to Scenario 2 and 3 where it appears to be accommodating a considerable amount of demand areas for both scenarios. This is because Rosebank Clinic is located in a high income area. Therefore, because in Scenario 2 and 3 a large number of the high income population were assigned the status on medically insured and thus eliminated from the
analysis, the facility then accommodates more visits from the surrounding areas. Therefore appear spatially wider in scenario 2 and 3 than in Scenario 1. The demand in Scenario 1, which has more high income population as proportionally allocated, quickly fills up the Rosebank Clinic to its maximum capacity before it could even accommodate visits from other surrounding areas hence it appears to be covering a spatially small area in this scenario.

Overall, the catchment areas of the facilities for the three scenarios appear to follow the same pattern when spatially represented. Facilities that are in close proximity to one another have smaller catchments and therefore geographically appear to be accommodating few demand areas. On the other hand, facilities located further apart have larger catchments and geographically appear to be accommodating a large number of demand areas. The point here is that the size or extent of the catchment is spatial and thus does not equate to demand. In low income areas (Region D for example), where facilities are in close proximity to one another, catchment areas appear spatially smaller as compared to the wider catchment areas in Region B and E for example. But the facilities in these low income areas accommodate 70% of the entire city’s health care demand due to the density of the population. This explains why facilities in low dense areas only accommodate or serve 10% of the demand. The remaining 20% is allocated to facilities in the intermediate and sparsely dense areas of Region C and A.

Some facilities located in Region C for example may appear on Figure 24: Scenario 1 total allocated demand and catchment areas (capacity & access distance constrained), Figure 25: Scenario 2 total allocated demand and catchment areas (capacity & access distance constrained) and Figure 26: Scenario 3 total allocated demand and catchment areas (capacity & access distance constrained) as though no demand or visits were allocated to them as the immediate surrounding areas are shaded with white. This is however not the case as the areas allocated to them might not be within the immediate surroundings of the facilities as a result of dasymetric mapping applied to selecting analysis units with population and thus excluding non-residential area or no population.
Figure 21: Travel distance to closest primary health care facility
Figure 22: Facility catchment areas irrespective of distance
Figure 23: Allocated demand in distance band (capacity & access distance constrained)
Figure 24: Scenario 1 total allocated demand and catchment areas (capacity & access distance constrained)
Figure 25: Scenario 2 total allocated demand and catchment areas (capacity & access distance constrained)
Figure 26: Scenario 3 total allocated demand and catchment areas (capacity & access distance constrained)
The allocated demand from the catchment area analysis results from each of the three demand scenarios are compared with actual usage rates in the form of headcounts per facility recorded by the city. This was done using Pearson Correlation Coefficient in order to reflect the extent of a linear relationship between two data sets; allocated demand for each facility per scenario and actual facility headcounts. The output results indicate that the allocated demand per facility for all three scenarios have a moderate positive correlation with the facility headcounts. When compared to one another, Scenarios 2 and 3 have a slightly higher moderate positive correlation of 0.35 while Scenario 1 has moderate positive correlation of 0.34. The proportion of facilities which have a modelled demand equal to or greater than the headcounts are 53%, 54% and 55% for Scenarios 1, 2 and 3 respectively. This indicates that the approach used to determine the demand for Scenario 3 is a good approach to defining public primary health care demand.

Results from the patient register show that almost 45.26% of the patients from the register did not use their nearest facility as a first point of contact. This means that 44.26% of the patients did not reside in the catchment areas of the facilities they visited. This indicates that many facility users are able and willing to travel further than 5 km to acquire health care services. Findings show that only 1% of the patients reside outside the City’s boundary. There is noticeable trend of a considerable number of patients, from the southern suburbs, using facilities in the Central Business District (CBD) of the City of Johannesburg. Various reasons can be attached to these results but it is not possible to identify such reasoning from the data set used in this study. This may include perception of better services, availability of treatment, knowledge of capacity due to long queues at closer facilities, need for specialised procedures, mobility and transport network and workplace located next to a facility. However, it is not within the scope of this study to confirm these reasoning. From a modelling perspective, another related explanation is that the model under-predicts the use of facilities that are further away. A probability variance should be built into the model to avoid generalising rational choice or behaviour.

7. RESEARCH CONTRIBUTION

Research in South Africa over the last twenty to thirty years has added knowledge to the subject of spatial planning of health care services. However, very little seems to have been done about improved methods of determining demand for health care services. Health care planning is a demand-driven process. Therefore service provision in this sector should respond to existing or potential demand. The planning process needs to be largely seen from the perspective of the client where use becomes the most important consideration. Undertaking accessibility analysis for the strategic evaluation of primary health care services using GIS which incorporates utilisation rates has only been used to a very limited extent in South Africa. So this approach can be used to greatly assist in the formulation of district plans and in ensuring that sector facility plans are put in place based on actual demand and usage when it comes to the provision of a range of services. Another key advantage of using accessibility analysis is that it transcends the measurement of facility sufficiency or quantity with respect to its location within the administrative unit in which it is located. This makes it possible to identify spatial service backlogs with respect to residential patterns so as to improve current service access at overburdened focal points where previously not realised. In addition, the actual distance travelled by the patients are analysed to serve as input and give support to the attainment of more equitable access standards to a range of services in a metropolitan context and to test and evaluate optimal facility location, in conjunction with movement patterns.

8. CONCLUDING REMARKS

There will still be a continued need for more robust planning to achieve a more equitable distribution of services in response to the growing need for healthcare. Much work is being done from a selection of accessibility planning approaches that are continuously developed and incorporated in the GIS suite of decision support tools. The focus is on the need for improved measures of access to local (public) facilities, and the need to find practical tools to support and improve current facility planning practice based on more realistic assumptions (Green et al., 1997:4). This paper has shown that establishing the
demand profile for public services is a very important aspect in the planning process. Three different approaches to determining public primary health care demand were created and tested in the study in the absence of accurate patient databases and / or registers. The 3 demand scenarios used in this study tested did not show any significant difference in the spatial extent of each of the catchment areas of facilities but a significant increase in the allocated demand from Scenario 1 through to Scenario 3. The total allocated demand in scenario three was strongly in line with the total number of facility visits (usage rates) recorded in the city and thus had a moderate positive correlation. This indicates that the approach used to determine the demand for Scenario 3 is a good approach to defining public primary health care demand. It is important to regularly test the result outputs from the GIS-based analysis against usage rates or actual data. On an international scale, many studies have used patient registers as demand input when measuring potential accessibility. However, in South Africa, owing to the absence of accurate databases, such capabilities remain untapped.

9. RESEARCH LIMITATIONS

Only facilities with capacity variables were used in the analysis. The variables included geographical locations of all facilities, facility type, population threshold / capacity / number of staff and operation per annum (days / hours). Facilities that didn’t have these variables were excluded. The selected facilities are therefore a representative of the supply of public primary health care services in the City. This excludes hospitals that offer primary health care.

A residential address database of all patients did not exist because the majority of patients retain their medical information. The only data available with residential addresses were clinic retained cards for TB chronic patients and the ETR.Net database. The ETR.Net database was the used as a proxy of the patient residential address database.

The ETR.Net database had 23 294 TB cases or records which initially reported to primary health care facilities in the City of Johannesburg. A large amount of time was spent on geocoding the records because of issues such as errors and inconsistencies in the residential addresses. Some of the records were not geocode-able as they either did not have residential address or had incomplete addresses, and thus excluded from the analysis.

10. FURTHER RESEARCH

It was found in the literature that data on the actual utilisation of services and / or facilities is not available especially in usable formats. The absence of health service utilisation databases such as digital patient registers has been recognised as a gap in existing research while there is ample evidence on the need for this type of analyses that incorporate utilisation rates. There is also a need for tools to improve demand estimate which do not only use place of residence as the origin but as well as the workplace because increasingly sophisticated measures can be constructed by computing the measure separately for different trip purposes, different travel modes and travel times, different age, sex, and occupational groups.

11. ACKNOWLEDGEMENTS

This study was done as part of a Masters Studentship project with the CSIR and the University of Cape Town. I thank my Supervisors, Prof. Julian Smit and Mr. Gerbrand Mans, for their full assistantship and for guiding me over the development of this project. I offer my gratitude to Mr. Dave McKelly for his valuable input during the data analysis and for sharing his knowledge. I also wish to thank Mr. Francois Venter, Gauteng Provincial Department of Health and StatsSA for providing the data which was used to undertake most of the analysis for this project.

12. REFERENCES


Abott, G. 1996. Developments from the 1995/6 National Health Facilities Audit


Reblocking as an Attempt at Reconfiguring and Improving Socio-Economic Conditions in Informal Settlements: The Case of Mtshini Wam, Cape Town

Thandeka Tshabalala¹, Sizwe Mxobo

Community Organisation Resource Center (CORC)
1st Floor Campground Building, C/O Raapenberg And Surrey Road
Mowbray, Cape Town-7750, South Africa
Tel:0216899408 fax: 0216899407
Email: ¹ tshabalalatn@gmail.com

Abstract

“Blocking-out” and “re-blocking” are interchangeable terms the South African SDI Alliance uses to refer to the reconfiguration and repositioning of shacks in very dense Informal settlements in accordance to a community-drafted development plan. The aim is to better utilize the spaces in informal settlements to allow for better service provision. Moreover, re-blocking is done in clusters identified by the community, and after implementation, courtyards are created to ensure a safer environment for woman and children via neighborhood watches (all shacks face the courtyard), productive places (such as washing lines, food gardens), and generally provides space for local government to install better services.

This paper will use a case study of a reblocked settlement called Mtshini Wam, an informal settlement founded in 2006. Through partnerships between civil society organisation, NGO’s and the City Of Cape town the reblocking of Mtshini was hailed as the first successful project. In 2013, the city of Cape Town announced reblocking as a policy in the quest to making dignified and livable spaces. The paper argues that reblocking is alternative to improving living conditions in ‘well located’ informal settlements such as providing road access for emergency vehicles and ensuring the effective delivery of essential services.

Keywords: Reblocking, informal settlement upgrading

1. INTRODUCTION

We are at a period where informal settlements, by virtue of their contested location in South African cities – most are located in close proximity to the urban core and/or on valuable land – are perceived as blight by municipalities, private developers and individual property owners alike; and are perceived to be a threat to cities’ attempts at achieving competitiveness (Huchzermeyer, 2006). The onus is thus on government to reassess its Constitutional obligation to poor people’s ‘right to the city’ in its entirety - habitation, participation; access to services, amenities, economic opportunities in well-located land just like every urban citizen (Purcell, 2002).

2014 marks twenty years of South Africa’s existence in a democratic system. Yet, more than 2 million of South African citizens still live in informal settlements in ‘undesirable’ conditions (City Press, 2014). In real terms, the residents in such conditions still remain substantially outside of the new South African democracy because in many respects they continue to receive limited tangible benefits from government programs and policies. Although the South African government is internationally praised for having delivered “more than 3.3 million low-cost houses since 1994” (Bloomberg, 2013); the huge low-cost housing backlog of 2.1 million housing units – coupled with the proliferation of informal settlements in...
major cities over the years - serves as testimony to government’s inability to keep up with urbanization and/or to provide sufficient low-income housing. The housing public policy that stipulates that the poor are entitled with legal title and internal services has increased poor people’s expectations of a “free” house without realizing the government’s inability to keep the promise (Bloomberg, 2013). Furthermore, the spatial development of the new houses has enhanced rather than dismantled the segregationist apartheid urban legacy: the location - and quality - of the newly-built RDP housing has been controversial since it is typically seen as a continuation of the pre-existing ones far from city centers, reinforcing a long-standing system whereby poor people are pushed further away from the cities and further increasing their day-to-day living costs (Bradlow, Bolnick and Shearing, 2011; Rubin, 2011). This has led to some scholars arguing, “The planning of the [South African] housing scheme is not about development but developmentalism. The emphasis is on numbers, rationality of the market and political appeasement” (Karam and Sihlongonyane 2001 in Charlton and Kihato 2004) at the expense of urban integration.

The paper argues that reblocking is alternative to improving living conditions in ‘well located’ informal settlements such as providing road access for emergency vehicles and ensuring the effective delivery of essential services. Due to the rising constraints in rolling out conventional housing and the rise of service delivery protest, thus far reblocking seems to be the new relevant approach to dealing with the huge housing backlog and the complex issues in informal settlements in South Africa. Post-Apartheid housing policy is large, complex and has evolved over time, largely as a reaction to challenges and critiques associated with it (Charlton and Kihato 2006). In 2004 the Department of Housing released a new Informal Settlement Upgrading Programme, suggesting in situ upgrading of informal settlements to cause minimal disruptions to residents’ lives (Huchzermeyer 2006). The paper will use the reblocking of Mtshini Wam as a case study to showcase reblocking as incremental approach to informal settlement upgrading and also as an interim intervention to ameliorate the living conditions in informal settlements.

1.1 Reblocking Defined

Reblocking is a process that was developed by the SA SDI alliance and which is based primarily on the spatial reconfiguration of shacks in informal settlements. Shacks are rearranged and reconstructed to maximize open space in the settlement. Shacks are also often built on raised platforms and the settlements graded to prevent flooding. Reblocking is considered an in situ process due to its minimal disruption of resident’s lives throughout the duration of the project. Reblocking is only made possible by the commitment of community members where reblocking is occurring. Re-blocking also increased social cohesion whereby the scarce spaces in informal settlements are consolidated and productivity is maximized for communal purposes (safety and security, daily domestic chores) and delivering better services. The process of negotiating floor sizes, tearing down shacks and creating a community based plan is essential in building a stronger social cohesion and solidarity.

Informal settlement upgrading “represents more than a reduction of the housing deficit ... it is an explicit recognition of the right to have a decent place to live” (Denaldi, Bagnarioli and Klink 1997: 45 in Huchzermeyer, 2004). Moreover, informal settlement upgrading recognizes the importance of spatial proximity and an integrated design of urban uses and users meaning residents can access social amenities and employment without travelling longer distances hence increasing the socio economic status by spending their money and time in improving themselves. Conversely, a lack of efficient integration can stifle sustainable development and may eventually lead to an inferior growth path with poor housing, educational, employment and service opportunities. Mtshini Wam (case study below) is the best example of a well located settlement, very short travelling distance to the city of Cape Town and also located in proximity to an industrial area providing jobs to the residents.
2. LITERATURE REVIEW

2.1 Informal settlements: location and access to the city

Although the informal settlement upgrading agenda has been on the National Housing Code since 2004 informal settlements are still being criminalized and characterized as sites of illegality, and shack dwellers continue to be criminalized and/or treated in a heavy-handed and undignified manner (Tissington and Royston, 2010). The use of terms such as ‘eradication of slums’, or the ‘slum elimination’ discourse that has characterized approaches to dealing with the conditions of informal settlements, has further alienated informal settlement dwellers and created uncertainty. Such terms have created the perception that informal settlements social deviations be eliminated and their residents, by virtue of the fact that they somehow live ‘outside’ of the normal benefits of a city’s resident, are illegal (Misselhorn, 2010). Misselhorn (2010: 2) indicates that it is fundamental for city planners to work in liaison with residents to realize the importance and functionality of informal settlements for those who reside in them (Denaldi et al 1997 in Huchzeremeyer, 2004). Even though the character of all informal settlements differs from area to area, one recurring factor in their functionality is that they typically provide an initial point of access into the urban environment for incoming migrants, or for those moving from other parts of the city (city to city migration). More importantly, they afford such access at a very low financial cost and the barriers to entry are low. Informal settlements usually afford elements such as access to employment and other economic/livelihood opportunities (which are often modest or survivalist in nature); access to social facilities (for instance education and health care); potential access to housing and infrastructure through waiting lists for housing projects or through rudimentary/illegal services and connections available). Informal settlements thus serve a critical function as ‘holding places’ where people can access the urban environment at extremely low financial cost and piece together various livelihood strategies there. It is therefore critical that informal settlements are understood as being not only a housing issue (in the narrow ‘shelter’ sense of the word), but more importantly in terms of access to the urban environment as well as valuable social networks which develop over time and are generally localized and settlement-specific. Some residents remain permanently and even ultimately gain access to formal housing, whilst others might reside temporarily for specific purposes which, once fulfilled, result in them moving elsewhere in the city or returning to where they are from. Reference

The fact that informal settlements provide valuable services/functionality to those who reside in them does not mean that they are well located (although in many cases they are), and where they are not, they typically still afford a better access opportunity than the next best option (for example continuing to remain at a traditional rural homestead or at a more peripheral location on an urban boundary) (Misselhorn, 2010; Richards, o’Leary and Mutsondziwa, 2006).

Whilst facing a range of day-to-day challenges - such as flooding, lack of sanitation, pollution, to mention but a prominent few - residents are typically able to achieve better access to employment, livelihood opportunities, education, health care and other amenities than the ‘next best’ available residential option, which is typically either more costly or located at a greater distance from the urban center or with poorer access to affordable public transport.

2.2 Tracing the Housing Policy Shift in South Africa: Motivations and Reasons

The delivery of housing is at the forefront of the national agenda, and the government is taking overall responsibility for providing houses to all. In the advent of democracy, the government observed the critical housing shortage, with the 1996 Census reflecting a housing backlog of 2 202 519 (Bolnick, 2010). According to Brand and Cohen (2013) since 1994, South Africa has built about 3,3 million low cost houses providing poor people with secure homes. Yet, informal settlements keep proliferating around cities signifying the failure of the state’s program to keep pace with the urban population growth. An increase in population growth since 1994 from 13 million to 53 million is another contributing factor to the housing backlog (Bloomberg 2013).
Most of the urban population who do not have houses in South Africa is living in informal settlements in harsh living conditions that pose health and safety threats for them (Poni, 2008). People migrate from rural areas to big cities and live with relatives while they look for socio-economic opportunities; but once these opportunities have been secured they are more likely to consider getting their own space so that they can have their own privacy.

The Upgrading Informal Settlements Program (UISP) a policy that aims to eventually upgrade most informal settlements in the country. The UISP policy is a progressive step in promoting both in-situ and incremental upgrading of informal settlements – with an emphasis on integrated, sustainable development and community participation – via enhancing the capacity of urban upgrading practitioners in the public and private sector as well as non-governmental and community-based organizations. Having targeted to upgrade 400 000 informal shacks by 2014; the UISP is not only redolent of government’s transition from intolerance of informal settlements to empathy for informal dwellers, it also signifies an acknowledgment that the government cannot meet the demand for free housing (NUSP, 2012).

Even though the housing delivery policy seems to have shifted to the upgrading of informal settlements, the reality, as always, is complex. Implementation of the upgrading of informal settlements program has been slow or poorly conceived, and plagued by various obstacles, not least the lack of capacity at the local level as well as the political will to do incremental settlement upgrading for poor people on what is often very well-located land (Tissington and Royston, 2010). Fast tracking the informal settlement upgrading processes would also be easily unlocked by adjusting national policy documents which are in line with engineering standards which seem to influence budgets, mandates and targets (Massey, 2014). These standards usually paint modernist ideas of how cities should appear and function; which consequently creates settlements that have not been designed with the largely social and cultural mentality of the residents in mind.

What is also important to note with reference to the housing policy shift – and the challenges thereof – is the fact there is a lingering dispute about the availability of well-located land for the poor in cities. Some of the disputes pertain to many municipalities’ reluctance to set aside well-located land for low-income households as well as the government’s inability to provide alternative tenure opportunities, more specifically, provide serviced land for the poor to erect temporal structures which can be improved over time. The resistance is commonly related to pressure from high-income groups who wish to avoid perceived devaluation of their properties from being near housing for the poor (NIMBYism) as well as the perceived tax revenue losses when compared to other uses (in particular, up-market gated communities) (Charlton 2008; Chetty, 2012).

2.3 From Derelict Spaces to Livable Spaces

The reblocking project meant upgrading basic services within the settlement through the reconfiguration of shacks to open up access streets for services and fire access. We argue that addressing the challenges in informal settlements needs to be more rapidly augmented by a more broad –based and inclusive response that is not only complimentary to housing delivery but which also focuses on the rapid delivery of emergency relief measures and basic interim services (Misselhorn, 2010). Such an approach has a range of important advantages, including its ability to more rapidly deliver a range of tangible developmental benefits at relatively low financial costs. More importantly, it can also contribute significantly to national and international development goals, including the 2014 Millennium Developmental Goals (MDGs), for example by means of rapidly providing access to basic water and sanitation at significant scale (Misselhorn, 2010; Misselhorn, 2008).
Emergency relief and interim basic services are responses to immediate and pressing day-to-day challenges within informal settlements. Perhaps a central characteristic the new approach is that it stipulates that the responses may or may not form part of a long-term upgrade, the responses provided need to be informed by an understanding of the specific needs and conditions within each informal settlement, and would vary from one settlement to another (Misselhorn, 2010). For instance the reblocking of Mtshini Wam was a challenge to engineers and architects because there was no master plan for the upgrade yet they had to take the settlements character into consideration and make it a better livable place for the residents. The new approach also makes provision for numerous interventions, among them basic water and sanitation, fire protection measures, solid waste removal, emergency vehicular access (where possible), and footpath access (Cousins and Lagardien, 2004). Furthermore, there needs to be an effective and transparent communication between municipalities and the residents of informal settlements so that the constraints and plans relating to their settlement, as well as the (realistic) timeframes for implementation, are understood.

It can be suggested that improving access to services in informal settlements could be part of the national housing program for settlements that are queued for upgrading or be located separately as an infrastructure –led program. The reasons for this are that the intervention is about basic services and not housing, and the basic services provided may or may not link to a full housing upgrade (Misselhorn, 2010; Richards et, 2006). This approach would clearly present a practical and necessary alternative response to conventional housing delivery, which will deliver a range of tangible development benefits to informal settlement residents at a significant scale. This might also decrease the number of Service delivery protests in the country through involving residents in formulating their own community development plans and providing the necessary services with the settlements specific needs. The enumeration (household survey) and profiling (mapping of the settlements services such as toilets and taps) exercise assisted the community leadership of Mtshini Wam to understand their settlement better. By mapping the services and pathways on a map they could easily see the location of the toilets and taps thus define their immediate needs for the upgrade in the settlement.

3. REBLOCKING IN THE WESTERN CAPE: THE CASE OF CAPE TOWN’S MSHINI WAMI

3.1 Background of Mtshini Wam

Mtshini Wam informal settlement was founded in 2006 when backyarders from the broader Joe Slovo Park in Milnerton, Cape Town occupied an open space on the corner of Hlosi Drive, Ingwe Drive and Democracy Way, it is located in what used to be an open space in-between formal subsidized houses. Although the Anti-Land Invasion Unit responded with the threats of demolitions, the South African National Civic Organization (SANCO) and Informal Settlement Management Department (City of Cape Town) were able to militate against such evictions. At this time, the Mtshini Wam settlement expanded and continued to grow. The residents were paying more than R200 per month to the formal houses for access to basic service such as water, sanitation and intermittent electricity supply. After being introduced to the Informal settlements network (ISN) - a collective network of informal settlements linking informal settlement civil society groups in five cities in South Africa - conducted an enumeration. The community found that 497 people living in 250 shacks only had access to 6 chemical toilets and 2-water taps meaning that the city had a huge limitation in providing services due to the high densities and lack of access.

Established in Mtshini Wam used to be a densely populated informal settlement subject to major geographical challenges with increased vulnerability (especially for woman using toilets at night), and lack of safety, flooding and security. The settlement was characterized by narrow pathways between shacks and was prone to flooding, especially in the rainy seasons. This made it more difficult to move around; and the spread of water-borne illnesses was a daily reality. Moreover, Mtshini Wam
had already ‘self-integrated’ itself to the space through the arrangement with formal house owners around the sharing of electricity and water. The crosscutting power lines between the formal houses and shacks were a massive safety concern.

Figure 1: Mtshini Wam Informal settlement
© SA SDI Alliance, 2013

3.2 Community Development Through Partnerships

After having done a successful reblocking project in Sheffield Road (Philippi, Cape Town) the SA SDI Alliance sought to create a formal partnership with the city of Cape Town around an incremental approach in informal settlement upgrading. In April 2012, the Community Organisation Resource Centre CORC and the (ISN) signed a Memorandum of Understanding (MoU) with the City of Cape Town (CoCT) around the participatory incremental upgrading of 21 informal settlements in Cape Town. Among the settlements to be upgraded was Mtshini Wam.

A learning exchange was organized for the Mtshini Wam residents to Sheffield Road informal settlement where a reblocking project had recently been completed by the SA SDI Alliance. The community members used this as a learning opportunity to understand the importance of reblocking, the design and implementation process of the whole project. The learning exchange was meant to make the community aware of what reblocking was and how it had helped curb the challenges that the residents of Sheffield Road settlement faced. Six demonstration structures were then built in Mtshini Wam to demonstrate the expectation to the residents. The ISN/CORC used this method of demonstration because they wanted to move away from the process of informing residents to a more practical feel of what to expect.

The Reblocking of Mtshini Wam has been made possible by a multi-stakeholder partnership comprised of support NGOs, Community Organization Resource Centre (CORC) and iKhayalami who provided financial and technical support to both the partners and community. Working closely with the (ISN) the community built an effective partnership with the CoCT’s Informal Settlement Department officials, engineers and field officers. The community also worked with Touching The Earth Lightly, an NGO
focused on fire, food and flooding concept shelter upgrades for the poor, and Worcester Polytechnic Institute (WPI) from Massachusetts, USA around growing vertical vegetable gardens and have installed “the litre of light”, which amplifies natural light through a chemical-based dispenser installed in the roof of the shack. This partnership is suggestive that the government cannot do it alone but needs other institutions to map low-income places livable spaces.

3.3 Community savings: building trust

As the interaction between the alliance and Mtshini Wam residents grew stronger, FEDUP (the Federation of the Urban Poor) introduced the community to collective savings as a tool to leverage more resources (the residents contributed approximately R160 000 towards the project through daily savings). At first, the concept was not well received as the residents lacked trust in handling the finances. A group of the residents were taken to a learning exchange to learn more about community savings and, after seeing the six demonstration structures, more residents were keen to contribute towards the upgrade of the top structure. Saving together as a community brought back the sense of community, sharing space, having a collective vision towards change and a greater sense of ownership to the project. This concept of community savings is a realization that the government cannot act alone but needs a strong civil society to assist in dealing with the socio-economic challenges. By organizing in transparent savings schemes, the community started saving towards the improvement of their settlement. This built the community’s social ties, and rendered a strong community with effective structures capable of engaging the municipality (with their savings they could pay for the top structure upgrade and municipality services).

3.4 Formation of a working team

The ISN co-ordinators mobilised the community of Mtshini Wam and built the capacity of the community leadership. Community meetings with residents were held on a regular basis to discuss the forthcoming upgrading process. The team comprised 5 Mtshini wam community leaders; 14 ISN technical team members (responsible for mapping, measuring and building of the model layout); 3 ISN coordinators which mobilized the community; 2 FEDUP members (who mobilized around savings); 3 CORC technical staff members (responsible for facilitating a community survey); as well as 1 CORC enumeration co-ordinator who facilitated a community survey (SA SDI, 2013). The team worked together with the community to identify and prioritize challenges faced by the community.

3.5 Getting to know the community

An enumeration process was carried out with the community leadership and some residents volunteered to assist with the process, the ISN/CORC team monitored the whole process making sure that it was community driven. 30 community members were trained and later conducted the door-to-door data collection process. Parallel to the data collection exercise, 14 community members conducted a mapping exercise that included numbering all the existing shacks, facilities such as taps, toilets, flooding prone zones, spaza shops, sheebens and pathways throughout the settlement.

The enumeration and mapping exercise sought to enable the community to identify priority issues within the community. A development framework, out of which the reblocking project was developed at Mtshini Wam, followed an assessment exercise.

4.0 BUILDING CAPACITY, BUILDING COMMUNITIES

The re-blocking project responds to the needs of the community by promoting self-reliance and improving the living conditions in the community through the partnership with the municipality and NGOs. During the process, short-term employment opportunities were created through the Extended Public Works Programme (EPWP). The EPWP initiative therefore built on the community’s initiatives
to save towards their own development (those that could not afford to contribute towards the project earlier, were able to do so once they got employment through EPWP).

The community leaders were true champions in this process. They negotiated the everyday politics within the settlement and were hands-on in the management of the community’s expectations. They led the process from beginning to end ensuring that the best interests of the community were linked to the City programs and vice versa. This is evidence of setting a sustainable strong social infrastructure in the form of a development committee and transparent savings schemes. On a regular basis, the alliance, in conjunction with the leadership, held several ‘partnership’ meetings with the municipality to unblock other challenges such as procurement processes, engineering support and social facilitation.

Since the project placed much emphasis on the self-reliance and an asset-based approach to development, the community is now able to teach other communities how to replicate the social and technical processes that made reblocking in Mtshini Wam possible. The strength of the re-blocking process is the central participation of community members in the planning, design and implementation of their settlement upgrade, and Mtshini Wam has somewhat set a precedent for other communities who wish to pursue reblocking too.

4.1 Reblocking as an Alternative to improving living conditions

Re-blocking is an alternative to improving living conditions in informal settlements such as providing road access for emergency vehicles and ensuring the effective delivery of essential services to the community. It effectively addresses the repeated re-erecting of structures in low-lying flood-prone areas and limits the disastrous events surrounding the rainy seasons. Top-structures are improved by using high-quality Inverted Box Rib (“IBR”), galvanized steel sheets with high fire resistance ratings (Handler, 2014).

Located as part of a spatial layout plan developed by the community the reblocking process increased access to services such as toilets and water taps in the community (174 toilets and 50 taps). In this regard, re-blocking can be seen to be addressing the larger concept of spatial reconfiguration focusing on space that is used by the whole community. The created space can be used as communal space for the community thus providing a greater level of security to residents. Reconfiguration of space within a settlement can make a significant contribution to the building of social bonds and life within a settlement, as well as creating a safer environment from both crime and natural disasters.

The highly flammable building materials and high densities of dwellings significantly aid in the rapid spread of fires and limit effective response by the City’s emergency services; which often result in loss of life, homes and possessions. New fire-resistant metal structures, coupled with the creation of space between rows of shacks, greatly reduce the risk of fire. These spaces are specifically designed to allow the passage of large emergency vehicles.

The community’s soil compacting efforts and the introduction of grading to the settlement appeared to reduce the amount of standing water after rainstorms. The compacted platforms created for re-blocked shacks to stand upon prevent this pooling and have reportedly kept rats from burrowing under community shacks. Living conditions are greatly improved in re-blocked clusters and shacks, which are noticeably less damp. Creating safe spaces between structures and fostering a sense of neighborliness where children can play safely and residents are able to keep a watchful eye on public spaces “Natural Surveillance” (Newman, 1972 in Felson, 1995). Even though the socio-economic impact of the project has not yet bee assessed but it could be argued that an enhanced urban environment significantly contributes to poverty alleviation and an increased quality of life.

Residents benefitted directly from the creation of safer and more dignified public spaces, and from the improved ability to safely introduce engineering services such as sewers, water supply, household electricity and street lighting (still to be installed). Through being incorporated throughout the whole
planning process, the community was not only able to provide meaningful input to the CoCT’s planning processes, it also benefitted in the sense that the community members learnt how to be organized for a common cause and/or able to initiate and contribute to future neighborhood change/improvements.

In November 2013, the city of Cape Town adopted as a formal CoCT informal settlement upgrading strategy, and is included in the City’s IDP and Urban Settlement Development Grant (USDG) budgets for the next five years. Through the partnership between ISN/ CORC and CoCT Thus far four informal settlements in Cape Town have been reblocked, namely Kuku town, Flamingo Crescent, Mtshini Wam and Sheffield road. All the above-mentioned projects have differed from one to the next offering better learning opportunities for both the city and NGOs to engage with communities around incremental upgrading. There is a growing recognition that new ways of delivering services in informal settlements are needed. Such new approaches should be aimed at building community capacity through participatory planning, design and implementation of services. There seems to be a greater realization that new approaches are needed to effectively transform these settlements into more dignified living spaces, and working with communities is paramount for success in upgrading initiatives. Even though after reblocking the residents do not have proper tenure to the land but due to the high municipality’s investment in services they feel safer from evictions.

5. CONCLUSION

The community has demonstrated an active citizenry in remaking their settlement into more livable, safer and dignified places. The ‘pro-activeness’ and self-reliance of the community has spurred a renewed relationship with municipality, rendering a long-term and sustainable partnership for the delivery of services. With support from the CORC and the ISN, the community is networked to collectives of informal settlements in the city, and community members have been sharing their lessons and methodologies with other groups. Mtshini Wam has become a “learning center” for a rich dialogue on possibilities for upgrading in Cape Town informal settlements. Evidently, re-blocking seems to be a solution to improving service delivery in well-located informal settlements and also increasing the residents’ sense of security in the place due to high municipal investment.

The paper has argued that the government needs to look for alternatives to improve the living conditions as responses to immediate and pressing day-to-day challenges within informal settlements. The provision of these services needs to be done together with the community through the assessment of the communities needs. Perhaps this upgrading could be done as a long-term response to informal settlements, which are inline to be upgraded to housing or done separately as an interim response to service delivery.

6. REFERENCES


Planning, Anti Planning and Future of Cities- The African Context

Dr Dillip Kumar Das
Senior lecturer, Department of Civil Engineering,
Faculty of Engineering and Information Technology,
Central University of Technology, Free State, Bloemfontein, South Africa,
Email: ddas@cut.ac.za, ph. 0027515073647.

Abstract

Planners are observed to be obsessed with bringing in technical solutions to solve non technical rather more specifically social problems of the cities and to control the development. However, experiences from various cities all over the world, for example Venezuela in Latin America, Spain and Britain in Europe, India and other South Asian countries in Asia to name a few have shown that things that start off good go bad and worse, while things that start of hideously bad get better and better with time. In other words it needs to understand that urban planning is not immune to the law of nature. While anti planning does not necessarily profess that any planning is always bound to be worse than no planning, it although unproven yet necessarily argues for the need to respect the law of nature while deciding the direction of growth and devising policies of development. Instead of prescribing regimental solutions to urban problems, understanding of the natural process of growth and integrating it with the development policies is of more importance. This is more important in the context of cities of Africa for their very nature, morphological, cultural and sociological behavior. Under this premise this argumentative article examines the implications of planning process and the roles of forces of anti planning in the development of cities in Africa. This article adopts a comparative case study approach by considering the tales of three different cities with similar socio-economic and geographical but divergent morphological characteristics in Africa supported by literature and arguments. It is revealed that a better future of cities does not necessarily depend on the absolute planning and control as planners often perceive, rather cities may take their own course of growth based on the perceptions of people who live in there under the processes of law of nature. Thus, planning requires to be considered along with the forces of anti planning and instead of considering ruthless planned programmes for examining the conflicting perceptions, there is a need for gentle and judicious modifying framework for deciding the future of the cities of Africa.

Keyword:
Planning, Anti Planning, African Cities, Development, Future of Cities

1. INTRODUCTION

Urbanisation- in the sense that proportion of people living in urban areas as opposed to rural areas in Africa is on the rise, although it is less rapid than sometimes claimed (Cohen, 2004; Goodfellow, 2013; Potts, 2009, 2012). The implications of this rapid urbanisation have also been emphasized by many scholars both positively- in terms of increased economic opportunities, and negatively- in terms of spatial and environmental degeneration (Davis, 2006; Rakodi, 1997; Silva, 2012; Stren and White, 1989) in the cities of Africa. At the same time massive political, economic and social changes have occurred in Africa over the last few decades in general, and consequently the urban areas have experienced high population growth, rise of dual economies and indifferent political regimes (Hatuka and D’Hooghe, 2007). The questions arise that, can urban planning understand how do these changes affect places and how does it respond effectively to these changes.

If we consider the history of attempts to plan and regulate urban areas in Africa, it is found that there are more failures and confusion than successes (Mabogunje, 1990; Okpala, 2008; Silva, 2012; Watson, 2009). Despite major shifts in development thinking in recent years particularly after 1970, the urban
policy remedies proposed have done little to stem the ultimately ‘laissez-faire’ nature of urban growth (Beall & Fox, 2009). However, it is also not to forget that there exists wide disparity in the continent. The former settler colonies of Southern Africa exhibit relatively strong legacies of planning that have to some degree been carried through to the present. For example, less than 18% of urban-dwellers were considered to be living in slum conditions in 2005 in Zimbabwe compared to an African average of 63% (Fox, 2013). Similarly, apartheid South Africa was associated with a particularly strict planning regime, which has fed into both relatively developed infrastructure coverage and a continuing legacy of social division and segregation (Harrison, Todes & Watson, 2008; Mabin & Smit, 1997). On the other hand, in the case of Central and Eastern Africa, the development of cities is marred by the non-reinforcement of regulations to volatile political environment, although many countries have inherited similar colonial planning system of the Southern Africa (Goodfellow, 2013) for good or bad.

During the colonial period and even after that urban planning and development regulation in African countries have evolved in tandem. Land use regulations, zoning ordinances and building codes, which have the force of law (Birch, 2008: 142) were the major instruments used by colonists for developing cities in their colonized territories during the twentieth century (Home, 1990; Kanyeihamba, 1980; King, 1976; Okpala, 2008). However, in the post-colonial period, it is of impression that governments in most African countries have failed to make any appreciable impact on the problems of urban degradation through their policies and plans (Mabogunje, 1990: 121). Although, urban physical planning was very popular both among the governments of newly-independent countries and their international sponsors (Conyers & Hills, 1984; Gans, 1963) in the 1960s, it was observed that the city master planning consistently underestimated the pace of urban growth, which is evident from the fact that informal development in many cities overwhelmed the assumptions and projections of the plan (Taylor, 2004: 4).

Because of these reasons urban planning fell out of favour and instead discourses of market-friendly, day-to-day urban management and improved urban governance evolved in its place (Lee-Smith & Stren, 1991; Mabogunje, 1992; Mattingly, 1994; McGill, 1998; Stren, 1993). Further, ideological battles between those in favour of state versus market-led development solutions was fought with great vigour with respect to the questions of urban spatial form and further on arguments emerged for the reduction of the scope of public policies due to failures of top-down master planning and state-run urban development agencies (Bernstein, 1994; Dowall & Clark, 1996; Farvacque & McAuslan, 1992).

Consequent upon such issues, diverging development scenarios have emerged. As an example Ugandan capital Kampala has become renowned for haphazard development with collapsing buildings (Pelling and Wisner, 2009), shanty settlements prone to fatal flooding and disease outbreaks (Mabasi, 2009), pot-holed streets, crumbling infrastructure and crippling traffic congestion (Goodfellow, 2013). In contrast, the Rwandan capital Kigali has become a strictly planned, orderly and model internationally famous modern city as described by UN-HABITAT in 2008 and become the envy of the region (Goodfellow, 2013).

In this context, the problem of how to plan for urban development and implement regulations over the use of scarce, valuable and environmentally strained resources poses an enormous challenge. The challenge lies in to comprehensively understand what ails the cities or what ails the urban planning process. It needs to comprehend should there be planning or is the planning per se the problem. Or is there any other alternative to the conventional planning process that is being practiced – like the significant incorporation of the forces of anti planning in the development of cities in Africa?

The objective of this paper is therefore to examine the implications of the urban planning process in the development of African cities, and roles the forces of anti planning can play in their development. This article adopts a comparative case study approach by considering the tales of three different cities with similar socio-economic and geographical but divergent morphological characteristics in Africa, such as Arba Minch in Ethiopia, Bloemfontein in South Africa and Harare in Zimbabwe, supported by literature and arguments. It is revealed that a better future of cities does not necessarily depend on the absolute urban planning and control as planners often perceive, rather cities may take their own course of growth.
based on the perceptions of people who live there under the processes of law of nature. Thus, planning requires to be considered along with the forces of anti planning, and instead of considering ruthless planned programmes, there is a need for gentle and judicious modifying framework for deciding the future of the cities of Africa.

2. PLANNING AND ANTI-PLANNING

2.1 Understanding planning for urban development

Planning, since the dawn of industrial era has been dominated by the pervasive idea of efficiency. Efficiency according to the classical economics and the principle of least means is seen as a condition in which a specified task is performed with low inputs of resources (Rittel & Weber, 1973). This is a powerful idea, which has been the guiding principle of planning, engineering and management including the modern governments and industry. However, when it is attached to the planning – as it is seen as a process of designing problem-solutions that might be installed and operated economically, it becomes very dominant. Further, it is considered as a problem, which can be assigned to technically skilled personnel, who in turn could be trusted to accomplish the objective or could be relied upon the efficiency of the experts who could diagnose the problem and solve it while simultaneously reducing the resource input (Rittel & Weber, 1973). However, in later times planning has been thought in a very different way. The question is now asked – whatever is being done is the right thing to do. In other words, the questions are asked about the outputs of the actions and putting the problem statements in evaluative frameworks. Now, when the social processes are interlinked to it, the outputs from one become the inputs to the other and consequently planning becomes more complex. Besides, in the urban development process plans and urban development regulations go together. As Kaiser, Godshalk, Chapin (1995) and Neuman, (1998) put it, plans can be seen as sets of agendas, policies, designs and strategies for physical development, encapsulated in a two-dimensional layout of the physical form of the city, whereas urban development regulations are binding rules concerning ‘what is built, where it is built, and when and how it is built’. Generally, these take the form of land use regulations, zoning ordinances and building codes having the forces of law, which the city development authorities or council are bound to follow (Birch, 2008: 142). Many African countries accepted and followed this planning and regulating process for their urban development and concentrated on the physical and spatial development of the cities. These planned endeavour in the cities however, clearly brought both positive and negative socio-economic outcomes simultaneously as seen from the cities of Southern Africa (Goodfelloow, 2013; Todes, 2011). Thus, whether planning is the solution to Africa’s urban challenges or part of the problem remains much debated. However, as exemplified from the success of urban planning in the Asian late developing countries – likes of Malaysia, Thailand, and Korea and so on in the late 20th and early 21st century, the argument evolves about the growing recognition of planning as a much needed integrative mechanism (Taylor, 2004). The challenge according to Taylor (2004) is to develop more inclusive and effective forms of planning rather than give up altogether in Africa.

2.2 Planning a wicked problem

In another way we can see planning essentially as the problem of identifying the actions that might effectively narrow the gap between what-is and what need to be (Rittel and Weber, 1973). In a structural sense, it deals with defining problems (of knowing what distinguishes an observed condition from a desired condition) and of locating problems (finding where in the complex causal networks the trouble really lies). According to Rittel & Weber (1973), an idealized planning system being seen as an on-going, cybernetic process of governance, incorporating systematic procedures for continuously searching out goals; identifying problems; forecasting uncontrollable contextual changes; inventing alternative strategies, tactics, and times sequenced actions; stimulating alternative and plausible action sets and their consequences; evaluating alternatively forecasted outcomes; statistically monitoring those conditions of the public and of systems that are judged to be relevant; feeding back information to the simulation and decision channels so that errors can be corrected – all in a simultaneously functioning governing process. It is well known that such a complex set of steps leading to a planning system is
highly unattainable and likely to falter. Some even argue whether such a planning system is desirable. So, an argument arises again if planning is necessary or is planning wrong (Bernstein, 1994; Dowall & Clark, 1996; Farvacque & McAuslan, 1992; Lee-Smith & Stren, 1991; Mabogunje, 1992; Mattingly, 1994; Mcgill, 1998; Stren, 1993). The answer lies in the problem itself. In contrast to the applied science where scientists and engineers focused on the tame or benign problems, which are definable and separable, and may have solutions that are findable; the planners deal with societal problems that are inherently different from the problems that scientists and perhaps some classes of engineers deal with (Beck, Thompson, Ney, Gyawali, and Jeffrey, 2011; Hardin, 1998; Rittel & Weber, 1973). Considering planning problems as scientific problems and planners as applied scientists who could find a solution to a problem is misleading (Ritchey, 2013; Rittel & Weber, 1973). Rittel & Weber (1973) argues planning problems are inherently wicked. Wicked problems have no clear traits, and there is no definite formulation (Beck et al, 2011; Hardin, 1998; Rittel & Weber, 1973). In order to get a solution to the wicked problems there is a necessity to understand the problem comprehensively. However, in order to describing a wicked problem in sufficient detail, an exhaustive inventory of all conceivable solutions ahead of time is required. Thus, problem understanding and problem resolution are associated to each other. In case of planning problems in the urban areas, which are essentially complex social issues and like other wicked problems they have no stopping rule, there is no immediate and no ultimate test of a solution (Beck et al, 2011) and every solution to a wicked problem is a one-shot operation (Rittel & Weber, 1973). The reason is that there is no opportunity to learn by trial-and-error, they do not have an enumerable set of potential solutions nor is there a well-described set of permissible operations that may be incorporated into the plan. For example, a free way cannot be built to experiment how it influences the traffic pattern in a city. Besides, every wicked problem is essentially unique and can be considered to be a symptom of another problem (Ritchey, 2013; Rittel & Weber, 1973). The choice of explanation determines the nature of the problem’s resolution. More importantly, while dealing with such problems the planners have no right to be wrong and planners are liable for the consequences of the actions they generate; and the effects can influence significantly to all those who are influenced by those actions (Rittel & Weber, 1973). However, in contrast urban planning is simply considered as a technical and apolitical exercise (Elkin, 1985; Stone, 1993; Ward, 1996). In the African context, although the ongoing Western urban planning and management models has attracted criticisms (Balbo, 1993; Gandy, 2006; Kanyeihamba, 1980; Myers, 2003), the fact is that they are prevalent in much of Africa and so do the contrasting development of the African cities.

2.3 Urban planning – successes, failures and reinvention

Not long ago urban planning in the international development circles was seen as an irrelevant discipline obsessed with spatial ordering and control (Todes, 2011), of course, not without reasons. It has met with numerous failures than successes and examples are spread across the world. For example, in the 1950s and 1960s, fueled by the rapid economic expansion, city – infrastructure and housing development process was blossomed in Venezuela through a deliberate planned process. However, housing programme of Caracas the capital of the country with its scale was no match for the massive influx of migrant people from the country side. As a result, illegal squatter settlements and shanty towns sprang up all over, even eating out the land earmarked for other purposes (Thomson, 1983). Things also went bad in the high rise buildings that were built at the great public expenses as they could not cater to the needs of the country people having a specific style of living. Therefore, what was once started of good has turned worse (Thomson, 1983). Similar examples are plenty in Indian cities. Despite the deliberate planning system, most Indian cities present a peculiar combination of up market aristocracy (like Bangalore and Gurgaon fuelled by private investors or international financers like World Bank and the Asian Development Bank) (Goldman, 2008: 3, Roy 2009), and impregnable slums (a classic case of Mumbai) (Roy, 2009). Also, at times, planning in India has faced with social mobilization, met with rebellion and is even contested (Roy, 2009). Even in a European country like Spain, the housing development in the cities – a case of Barcelona becomes so huge as against the demand that it retarded the country’s economy (Ministry of housing Spain, 2008, www.cotizaloa.com, 2008). The instances are not few in Africa too. The infrastructure scenario in Lagos, one of the largest cities of Africa is almost deplorable. It is suggested that urban planning in Lagos was from the outset characterized by an
incomplete modernity, which was repeatedly justified through the use of cultural distinctions between modernity and tradition (Gandy, 2006). Similarly, the case of Abuja in Nigeria, in which extensive removals of informal settlements were associated with the Abuja Master Plan (UN-Habitat, 2009), and planning regulation has been used to justify the removal. In a recent case of Addis Ababa in Ethiopia, the contentious expansion of the city through the integrated development master plan eating out the hinterland farms was met with protests from the students all over the country (Mohamed, 2014). In South Africa, a number of cities are exploring links between spatial planning, infrastructure and budgets in response to the concerns that their broad spatial frameworks, which are a reaction against master planning, have been too loose to influence development. In here too, the poor integration of sustainability into planning, and the emergence of environmental management as a parallel legal and institutional system to planning resulted in duplicated development application processes (Todes et al, 2009), confusion and delay.

However, planning is being ‘revisited’ and ‘reinvented’ to play new roles in managing the growth of cities in ways that promote their sustainability, inclusiveness and livability (Todes, 2011). New approaches to planning have been evolving for some time, including in some countries in Africa like South Africa. The 2006 Vancouver Declaration developed for the World Planners Congress, ‘Reinventing Planning: A New Governance Paradigm for Managing Human Settlements’, talks of the importance of a new urban planning system (Todes, 2011). More recently, planning has been the subject of the Global report on human settlements of the UN-Habitat (2009), entitled ‘Planning Sustainable Cities’. The document provides a critical reflection on the past and present concepts and practices of planning across the world, and suggests important directions for change. According to the critics ‘master planning’ approach that dominated formal planning practice does not address the real conditions and dynamics of rapidly growing cities in developing countries, and the extent of poverty, inequality and informality (Devas, 1993; UN-Habitat 2009). Plans are static instruments, which take so long to produce that they become outdated fast, and paid little attention to implementation. Despite the criticisms, it is apparent that the scope and breadth of planning have widened. Although planning traditions vary considerably, the contextuality of planning and the need to develop locally appropriate systems of planning are important points emphasized in the Global Report. It defines planning as ‘a self-conscious collective (societal) effort to imagine or re-imagine a town, city, region or wider territory, and to translate the result into priorities for investment, conservation measures, new or upgraded areas of settlement, strategic infrastructure investments and principles of land use regulation, and so on (Healey, 2004:47; Todes, 2011).

2.4 Anti planning View

The debate continues whether planning is necessary or not. However, the failures of planning encourages for a different discourse. According to critics, plans do not take into account the possibility of changing conditions and don’t build in feedback relations to assess whether underlying conditions are met, and are therefore unhelpful and often dangerous (Bernstein, 1994; Dowall & Clark, 1996; Farvacque & McAuslan, 1992; Lee-Smith & Stren, 1991; Mabogunje, 1992; Mattingly, 1994; McGill, 1998; Stren, 1993). Further, another argument often emerges that since the world is so unpredictable there is little point to planning. Rather, flexibility and adaptability are more important than focus (Collons and Hansen, 2011; Gladwell, 2010; Harford, 2011)). Besides, science – the foundation of all planning – is itself not a monument of truth but subject to considerable change (Churchman, 1968, 1971, 1979). In Churchman’s (1968) view, it is good for planning adherents to keep in mind that anti-planning, which is a fundamental part of the systems approach has some good things going for it. According to him anti-planning comes in several forms such as the “excellent” manager (is the one who assumes leadership easily and quickly takes the right decisions due to his experience, perceptive mind, and intuition); the sceptic (who thinks we cannot understand or really improve systems); the deterministic (who believes major human decisions are not in the hands of human decision makers, but in uncontrolled sociological forces and, indeed, sometimes the decision maker is hard to find); religion (based on the belief that a cosmic mind plans all, humans should abstain from meddling with divine planning); and analysis of self (which is based on a wide variety of analyses of self). Then let us examine what anti-planning advocates in general and with respect to urban development. A normal plan
requires to figure out in advance when and how to accomplish objectives. But an anti plan advocates throwing out all such rules and just dive in, and adapting the best as possible to the circumstances. However, it entails to keep a record of the experience, capturing the thoughts, triumphs, frustrations and the achievements for later review, and learn from them to do better in future (Newport, 2013). The theory behind anti-planning is that it exposes us to a much wider swath of the productivity plan landscape. Newport (2013) argues that the journal will keep us updated on how well the things are going, which provides the selective pressure needed to drive towards some novel approaches to get the work done (Newport, 2013). In the landscape of urban development there are four things, which come out from the anti planning arguments. First, the things which start bad may end up in good and the things which start great may not necessarily end up in so great rather may go worse (Thomson, 1983). Second, the law of nature and natural growth always do not obey the theories of planning. It is not always possible to contain the natural growth and therefore it is necessary to respect the law of nature and natural growth. Third, people are the best to understand and know what is best for them and planning does not adhere to that. Fourth, from the spatial development point of view anti-planning advocates that the urban planning should first consider the land for other functions such as, agriculture, economic development and ecological environment and not for construction (Chang, Yang, Song, 2010). Thus, anti-planning is not opposing to planning or no planning as seen by many. It argues against what planning is all about- it needs to see what is not needed to do than what is needed to be done (Beck, et al, 2011; Rittel & webber, 1973). In a planning process, it is observed that what we don’t plan on doing we end up doing it. The reason is we never look back and review it. Anti planning suggests that it is critical for decision makers and planners to anticipate more, and to be confronted with the reality that something might not happen in order to facilitate the happening of another thing. It boils down priorities, respecting the law of nature, people and natural growth. It is not necessarily against planning but provides a way to plan based on the four hypotheses as discussed above so that the time consuming expensive plans do not go waste leaving the cities in peril.

3. CASE SELECTION AND RESEARCH METHODOLOGY

In recent days scholars have argued for a new phase of experimental comparative urban research (Robinson, 2011; Ward, 2010). Some of the proposed aspect of this methodology is to break down the dichotomy between ‘developed’ and ‘developing’ and compare cities with varying socioeconomic characteristics that aim to apply similar policy solutions, drawing on the literature on global policy and also to address the parallel neglect of comparison between cities (Goodfellow, 2013). This study follows a comparative analysis of selecting most similar systems, which is also referred as the ‘diverse case’ method because it aims to select cases on the grounds of their similarity in many critical aspects but marked variation regarding the outcome of interest (Abu-Lughod, 1976; Gerring 2007; Goodfellow, 2013; Ragin, 1987; Robinson, 2011). Based on this rationale, this article discusses case studies, which not only exhibit socioeconomic similarities but also belongs to the same geographic region, the Sub-Saharan Africa. For this purpose three Sub-Saharan cities Arba Minch in Ethiopia, Bloemfontein in South Africa and Harare in Zimbabwe were chosen for the investigation. These three cities have similar functions. Arba Minch is a small city but zonal capital city. Bloemfontein is a middle sized city, a part of a Metro Municipality and a provincial capital. Harare is a large city and a national capital. Another aspect of selecting the three cities besides their similarities considered was that they vary in size and scale and followed planning regimes since their inceptions, which is thought to provide critical insights to the study.

The research methods used in this study were based on the common prescriptions about case study research and the use of multiple data sources (Cresswell, 1998; Gerring, 2007; Yin, 1994). It followed an extensive literature study on issues relating to the urban planning and happenings relating to urban development in the cities considered as case studies and discussion with the experts, and stakeholders such as politicians, bureaucrats, planners, university professors involved in urban planning, investors, property developers, and members of civic associations. The discussion was conducted through semi-structured interviewing, which encompassed over fifty people in the three different cities considered for the research. The respondents were selected purposively through snowballing approach in order to get wide range of opinions and perspectives. Alongside interviewing, some archival research was

ISBN: 978-0-86970-781-4 256
undertaken in city administrations, as well as an extensive review of relevant press coverage on issues relating to urban planning, development regulation, construction, etc. The interviewing and case study research were conducted from a period of January 2010 December 2013 (in Arba Minch in 2010, in Bloemfontein from 2011-2013 and in Harare in 2013).

4. CASE STUDY ANALYSIS

4.1 Arba Minch: Lives on its own

Arba Minch is one of the emerging towns located in the Southern Nations, Nationalities and Peoples Regional State (SNNPRS) of Ethiopia at about 505 km south of Addis Ababa (at 6°04’ North Latitude and 36°40’ East Longitude). It is the capital of Gamo Goffa zone administration in SNNPRS (Arba Minch Municipality (AMM), 2006). The peculiarities of the city is that it consists of four administrative sub-cities – Secha, Sikella, Abaya and Nechsa having a total population of 74 843 and with an annual growth rate of 4.8% (CSA, 2008). These four sub cities are morphologically different from each other and are independent units. Unlike many other older towns of Ethiopia, which have been spontaneously developed, the city development process in Arba Minch is carried on through master plans since its establishment in the 1960s as a town. Initially the main aim of the first master plan in 1963 was the joining of the two separate settlements (i.e. Secha and Sikella) and creating a single town known as Arba Minch. This plan was mainly prepared for residential and administrative purposes (NUPI, 1989).

Further on, the second master plan (1967) also envisaged the same goal and the two parts (Secha and Sikella) started to be considered a sole town. The plan was modified in the year 1980 and parcelisation plan was introduced, which was mainly for areas in between the two centers and the southern part of Sikella (NUPL, 1989). This detailed plan was used for the development purposes and its important components were incorporated into the third master plan (1989), particularly concerning road network and the distribution of some residential areas. It envisaged the centre of the town to be at its geographic center but lack of detailing in the plan made it difficult to implement. As a consequence another master plan in 1995 was prepared based on the analysis of the cumulative effects, achievements and failures of the previous plans. Unlike the previous plans it included the two self-sufficient and isolated settlements located to the North and South of Kulfo river flowing through the city. According to this plan, the existing two parts of the city (Secha and Sikella) and the scattered settlements between the two were to be consolidated to form a single entity. Besides, the two sub cities were visualized to develop following the natural development. The city was also planned to have a semicircular development with settlements at the edges and the center of the town was planned to be shifted to both banks of the Kulfo river. The common civic services and administrative buildings which receive frequent visits were planned to be located within or near to the center as much as possible (Dube, 2013).

Essentially, it is observed that the planning experience is more or less top-down, which mainly focused on Survey–Analysis–Plan–Implementation approach of master planning (Dube, 2013) controlled by the federal government. Although, it was less practical, the local government (Zonal and Woreda (local) administrations) and the municipalities are given very less mandate to deal with urban development in their cities. Also, it does not provide scope for community participation or consultation in the process of planning, implementation, monitoring and evaluation (Dube, 2013). The implementation and effectiveness in managing the urban environment were limited because of the capacity constraints, inadequate or unclear institutional and legal frameworks, centralized top-down planning, and inadequate room for community participation or consultation in the preparation, implementation, monitoring and evaluation of those plans.

Consequently, despite the long planning process for development of the city, as it is seen today the envisaged goals have not been realized although the two important components of the city still kept their own identity and the centre of the city has not been established in real sense. The city follows the natural growth and lives on its own. For example, Sikela, also known as the lower town functions as the commercial area experiencing a lot of hustle and bustle, where as Secha, the upper town located on a mound is relatively quieter confining residential, educational and some civic functions. The other two
components of the city – Abaya and Nechsar have been relegated to the background and have never been taken off in reality. As put it by some of the respondents interested in the city development process that the development in the city is sketchy and mostly confined to some sporadic construction of houses, roads or cultural artifacts. The city does not possess much of the urban infrastructure and services, for example, it lacked organized water supply and sanitation system and solid water management system is absolutely absent. The transportation services are mostly managed by the private taxi operators or individuals. The road system is mostly operational along the main arterials. Besides, informal (squatter) settlements, illegal land occupation and land speculation are becoming serious challenges in the city. However, the city looks to be functioning on its own without much planning interventions. What seems working for the city is its growth following natural trend as envisaged by the master plan prepared in 1995.

4.2 Bloemfontein: East and West divide

Bloemfontein city since its foundation in 1846 has been a centre of importance in the South African history. First as the capital city of the erstwhile Orange Free State republic, and then as the site for Bloemfontein conference in 1899, which failed to prevent the outbreak of the second Boer war between Britain and South African republic, followed by building up a concentration camp by the British forces to house Boer women and children. It is also the place where the African National Congress (ANC) took birth in 1912. Later on until 1994, it was the sole judicial capital of the country. Since then it remains as the seat for Supreme Court of Appeal and known as the judicial capital of the country. Besides it functions as the capital of the Free State province. It is located at the latitude of 29.133 and longitude of 26.214 and almost at the centre of the country. Currently it is one of the growing medium sized cities in the country and the largest component of the newest Mangaung Metropolitan Municipality in South Africa.

The city was known as one of the most conservative cities of the country; however, since 1986, the scale, intensity and variety of spatial processes undoing the structures of the past are much more dynamic. The apartheid boundaries and containments of all kinds have eroded substantially. It is now governed by the institutional framework under the Mangaung Metro Municipality (erstwhile Mangaung Municipality) since 1994. The city is being planned according to the integrated development plans (IDPs) prepared for the purpose every five years under the spatial development frameworks (SDF) of the country.

Initially the spatial fabric of South African society was engineered through apartheid planning, which led to the unequal distribution of resources, low-density sprawl, the lack of opportunities in disadvantaged areas and too much emphasis on private transport (SDF, 2011). The case of Bloemfontein city was no different. After the Municipal Systems Act, Section 35(2), No 32 of 2000, the SDF has got statutory authority and accordingly once the IDP is passed by the municipal council, it becomes guiding force for all land use management and spatial planning issues within the municipal boundary.

Since 1991 the Bloemfontein city has gone though distinct changes. The city was developed around the central business district (CBD) in a sectoral form. The majority of the poor and disadvantaged communities live in the South-Eastern part of the city and the middle and affluent class live on the North and Western part of the city. The North-South railway line has created a boundary between different communities and is still acting as a barrier for the people living on the South Eastern part from the economic opportunities, which are basically concentrated to the West of the railway line. This has created transportation challenges as these people have to travel long distances to their job locations and to the CBD.

However, the spatial infilling and up gradation of informal settlements have brought changes in the spatial pattern of the apartheid era. After the repeal of the Group Areas Act, high level of desegregation have occurred in the former low-income white suburbs (viz. Hilton, Oranjesig, Lourier Park and Erhlich Park) as well as the new low-cost housing projects contributed to the settlement of Africans in such
areas. Besides, due to the changing spatial, economic, social and political dynamics, the CBD of the city has been transformed from a traditional white man's CBD to a cosmopolitan downtown.

In recent years, the city has gone through major relocation of services from the CBD area to the suburbs particularly to the West. Although, a vast majority of people reside and work in the centre or to the East of the city, the Western areas of the city have experienced rapid growth with major office and retail developments. This shift in the development has brought about the decline in the CBD area. Consequently, the built up area in the CBD is underutilized, the travel time and distance for the people from Eastern areas to job locations have increased and more importantly the surrounding areas of the CBD have also developed as transgression areas with a mixed land use. Besides, some of the respondents interviewed are observed to be critical about this development with the argument that the Western part in not designed with sufficient infrastructure appropriate to the need for neither intensive business district nor it is located at the centre of the city. According to them, allowing new development without ensuring acceptable levels of service will be detrimental to the smooth functioning of the city and will have considerable negative economic implications for the city as a whole.

Nevertheless, another distinct phenomenon is occurring in the city. The white population dominated North-Western area is stretching the resources available to develop further outwards with new retail, commercial and residential facilities. In the opposite direction, the non white population dominated traditional townships of South Eastern areas have seen linear pattern of development by consolidating the informal settlements and progressively moving further away from the economic opportunities and civic benefits of the city centre. This pattern of development is resulting into further sprawl in the city and creating a backlog in the provision of land, housing, infrastructure and services in these rapidly developing areas.

The city of Bloemfontein has clearly followed a strict planning regime since its inception although in different patterns such as, segregation before apartheid era and desegregation and consolidation after the independence. The city has a democratic governance structure and it is planned and developed according to the IDPs with statutory authority. However, the desegregation and consolidation envisaged have not been fully realized. There is a clear indication of spatial and socio-economic divide between the Western and the Eastern part of the city. The CBD, which was once the lifeline of the city has been relegated and is in the decline. The pressure on the transportation, civic infrastructure and housing is well felt. Although some of the informal settlements have been consolidated and merged with new developments, new informal settlements continue to develop. Besides, the nonwhite townships known as the “locations” around the city, which are parts of the Mangaung metro municipality have been devoid of adequate infrastructure and service facilities. Thus, the long history of planning in the city has not able to achieve the development to the desired level in the city.

4.3 Harare: is it still the Sunshine city?

Harare, for decades is known as the Sunshine city of Africa. It is the capital city of Zimbabwe and potentially one of the most important cities of Southern Africa with a total population of 2.88 millions. Administratively, Harare is a metropolitan province, which also incorporates Chitungwiza town and Epworth. It is the leading financial, industrial with mining activities, communications, commercial, and trade centre of the country. Founded in 1890 as a fort, originally it was known as Salisbury. It was declared as a municipality in 1897 and became a city in 1935 (Hoste, 1977). It is argued that in its general state it has a significant bearing on the overall socio-cultural and politico-economic organization management of Zimbabwe as a whole over the years (Strategic Plan, 2012 – 2025).

Like many other colonial cities in Africa, Harare has inherited the colonial and strict planning system. Harare was planned and developed based on the system created by the British colonists from 1890 up until 1980 (Auret, 1990; Loney, 1975; Moyo, 1991; Tickner, 1979). The Planning Acts from 1945 to 1976 did little in terms of the communal, resettlement schemes and other rural areas apart from the provisions of compensations, and urbanising through development control (Chirisa & Dumba, 2011).
However, according to critics the former colony and the city of Harare in particular were never adaptive to changes spatial planning and management require. The act was called for a revision in 1996, which occurred but without significant changes (Chirisa & Dumba 2011). Currently urban development in the city is governed by the Regional, Town and Country and Planning Act (RTCPA) (Chapter 29:12 Revised Edition of 1996, RTCP) of Parliament of Zimbabwe. The other statutory documents, which guide urban planning and development, are the Harare Combination Master Plan, Local Plans, Town Planning Schemes and Regulations.

In recent years, physical and spatial planning in the city is directed by the Department of Physical Planning (DPP), a technical arm of the government that is in charge of managing the spatial planning system. It provides technical advice for the implementation of the development planning systems (Toriro, 2007). It works as the watch dog for adherence and implementation of the provisions of the RTCPA and related legislation but according to majority of the respondents the pitfalls in the city development process are plenty, which are also linked to socio-political and economic situation of the country. The political crisis and economic downturn from 1998-2008 adversely affected the development of the city. Because of the politico-economic crisis, essential services such as, water supply and power scenario have rapidly worsened; street repairs and solid waste management were virtually non-existent. In May 2006, the Zimbabwean newspaper the Financial Gazette, described the city in an editorial as a "sunshine city-turned-sewage farm (Financial Gazette editorial, 17 May 2006). It was also voted as the toughest city to live in according to the Economist Intelligence Unit's livability poll in 2009 (Agence France-Presse, 2009). The Economist Intelligence Unit rated it as the world's least liveable city with its position of 137th out of 140 surveyed in 2012 (Liveability Ranking and Overview Report, August 2012).

Besides, in order to develop the city, the shanty towns and backward cottages in the city were demolished in 2005 in an operation called Operation Murambatsvina (“Drive out Trash”), which has attracted sharp criticism from all quarters because of lack of prior warning and alternate provisions. Operation Garikayi/Hlalani Kuhle (Operation "Better Living") followed a year later in 2006, which consisted of building concrete houses of poor quality. Later on during late 2012, plans to build a new capital district in Mt. Hampden, about twenty kilometres North-West of Harare's CBD was announced, which generated varied opinions (Newsday, 23 November 2012).

According to the Greater Harare Master Plan, it was envisaged that most of urban areas immediately outside the city will eventually be incorporated into Harare as the city expands (news.zimbabwe.com, 2009) without much evaluations about its consequences on the city. Despite the efforts the city faces urban ills from all quarters starting from poor urban infrastructure (such as, road network, water supply, sanitation, solid waste, and unreliable drainage system), dependent on toxic and non renewable energy source, housing and so on. Harare, according to critics has witnessed detrimental patterns of growth, land use and degradation of physical infrastructure.

Town planners blame legislation for all the ills the city is facing (Newsday, 2010:4). In trying to redress the impacts of apartheid policy (Yiftachel, 2008), which held during ninety years of colonialism (1890-1979), the government used a combination of instruments, ranging from technocratic-induced minimalist ideology to socialist populism. For example, in order to increase the supply of housing and encourage densification, the government formulated Circular Number 70 of 2004, which sets down the new standards for the planning and construction of infrastructure and houses in all urban areas in Zimbabwe (Chirisa, 2014). However, the bottlenecks associated with national housing provisions, particularly stringent procedures and delays in the approval of plans hold back the rate of growth in housing stands. The delay in housing development acts as a major impediment to slow down the construction of roads and water pipes before people can settle in any given area (Chirisa 2014; Toriro, 2007). Besides, the other underlying causes are lack of shared vision and an implementable strategic plan, and lack of prioritization, which are creating serious pressure on limited financial resources. Similarly, rural to urban migration straining the infrastructure designed for a much smaller population (for about 300000 people), the financial crisis (2005–2009); depleted skills base, lack of performance
monitoring systems, and poor corporate governance resulting in gross mismanagement of the city council’s assets (Chirisa, 2014, Chirisa & Dumba, 2011; ; Toriro, 2007) are major causes of concern.

Further, some critics argue that the concepts of a ‘unitary town or city’ where residential areas are not segregated (in the past, by colour) are likely to remain a pipe dream. Master plans and local plans may not able to meet the challenges and something more is required as the implementation of these plans has resulted in the current unacceptable urban morphology (Chirisa & Dumba, 2011).

Thus, it is seen from the case studies that despite reasonably and long planning efforts the cities have not been developed as desired and are in the state of peril.

5. FUTURE OF CITIES IN AFRICA, IMPLICATION OF PLANNING AND ANTI PLANING, AND CONCLUSION

More than half a century ago, cities were first formally considered as ‘systems’ having distinct collections of interacting entities, usually in equilibrium, but with explicit functions that could enable their control often in analogy to processes of their planning and management (Batty, 2009). The environment was assumed largely benign, and their functioning was assumed to be dependent on restoring their equilibrium through planning (Beck et al, 2011; Chadwick, 1971). However, in reality, it was found that cities do not exist in benign environments and cannot be easily closed from the wider world, they do not automatically return to equilibrium for they are forever changing, indeed they are far-from-equilibrium (Batty, 2009). As a result during the last half century, the image of a city as a ‘machine’ has been replaced by that of ‘organism (Berry, 1964; Batty 2009). According to Batty (2009) the functioning of cities in space and time is based on multiple processes of spatial choice in which individuals and groups in the population locate with respect to one another and their wider activities in the form of land use types. This leads to the emergence of patterns of activities and spatial patterns. Thus, cities are expected to evolve continuously. Similarly, Africa is expected to urbanise more. Cities of Africa will continue to grow and evolve (Batty, 2009; Pincetl, 2012). For example, with the availability of economic opportunities, the cities are expected to invite more people into them. However, the huge influx of people will create added pressure on all the elements of the city especially from spatial and infrastructure point of view. There will also be flow of materials in the form of inputs and outputs such as, storage of energy, water, nutrients, and wastes of urban area (Baccini, 1997; Barles, 2009; Kennedy et al., 2010; Pincetl, 2012) among others. Besides, life cycle analysis and ecology have also become integral parts of the urban metabolism (Chester 2010; Pincetl, 2012).

The future of African cities is tied with the people who are involved in giving them a direction. Grand visions for them are engendered, technological innovations and varied socio-political and economic scenarios are expected to influence them. In consonance with these phenomena urban planning will continue to hold a place of importance. The planners and decision makers will try to change the current nature of the cities through their conscious efforts for bad or good through different approaches ranging from the aping the Western or European models to indigenous local models.

However, according to Gladwell (2010) and Harford (2011), it is not the planning at fault; rather it is the poor planning or implementation that contributes to the dismal plight of cities despite planning efforts. It could be argued that if planning effort is considered as fruitful and has no role in the plight of the cities, then the first question comes why and how there shall be poor planning, and secondly, if it is planned properly what goes wrong during the implementation process. While, there is no denying that planning is absolutely necessary for the development of the cities in Africa, which is available in different forms in different countries to certain extent and is being practised, there is a necessity to look into it in a rather new way and plug the gaps – whether it is poor planning or implementation issues. Further, it is also necessary to see planning as a wicked problem, which does not have a certain set of fixed answers, each problem is unique and one problem may be a symptom of another problem, instead of considering it just as a technical and apolitical exercise.
The forces of anti planning come here into the fore. It is not to be misunderstood that anti planning is no planning or against planning. In a simplistic sense it argues for—instead of a long term vision, breaking the activities into tiny elements and keeps a journal of their performances regularly and learns from the experiences, and to give a direction to the planning and development effort. It boils down to priorities, respecting the law of nature, people and natural growth. Because people are the supreme and they know what is best for them, and nature cannot be contained and for a city to be healthy the environment matters most than the built infrastructure, which is mostly stressed. It also argues for prioritising the environment first and the land—the scarcest resource (which is limited and likely to have the least possibility to regenerate) should be first kept for purposes other than construction or buildings. Besides, if the different forms of anti planning—the excellent manager, the sceptic, the determinist, and the self analyst are integrated in the planning process, they would create regular checks and balances in the development process and allow the planners or decision makers to understand to what not to do than what to do. However, as learned from the case studies, in no case these elements have been adequately considered in the planning process, which is perhaps the reason for the non performance of the plans prepared over the years. Yet, it is also learned that allowing the Arba Minch city to follow its natural development trend—an unintentional incorporation of one of the anti planning forces somehow make the city to live despite severe resource constraints and actual planning interventions. Therefore, anti planning should be considered complement to the planning process and they should go together instead of planning for the development in the abstract form as it is being done today. As an anecdote from the parallel readings of “The Wind in the Willows (Grahamme, 1908)” and “Towards a New Architecture (Corbusier, 1985)”, it can be concluded that if contradictions occur between the philosophies of Mole’s home (tinkers myopically with the surroundings to produce a very pleasing effect) and Corbusier’s machine (remaking the whole world by grand conscious design), the current planning process specifically in Africa, is going in the later direction with no great effect, as against the requirement of the former in its own context.

6. REFERENCES


Batty Michael 2012. Building a science of cities, Cities 29, S9–S16


Chester, M. V. 2010. Systems analysis and urban sustainability, Public Interest Energy Research (PIER), Program of the California Energy Commission


Gladwell, M. 2010. *Interview with the Association for Manufacturing Excellence* that the economic crisis should remind us that “you can’t really engage& in effective prediction.”


Grahaume, K. 1908. The Wind in the Willows, Methuen, UK.


Ministry of Housing in Spain (2008). Number of new properties


Tickner, V. 1979. The Food Problem, From Rhodesia to Zimbabwe No. 8, CIIR, London.


Confronting the Power of the Babblers and the Billionaires is necessary to make South Africa a Great Place

Das Steyn (J.J.)

Professor (SACPLAN & SACAP)
Research Fellow
Department Urban and Regional Planning, Free State University
P.O. Box 339, Bloemfontein, 9300, South Africa
Tel: 027 51 4012486, Email: steynjj@ufs.ac.za

Abstract

Power corrupts but lack of power frustrates. On the local level an escalation of civil unrest and protests are escalating in South Africa. People are frustrated by the promises of a better life and the right to basic services which are not kept while politicians and the rich get richer. In planning theory Flijberg showed that planners could change the situation by exposing the misuse of power. He changed Aalborg from a city dominated by the rich and the politicians to become one of the best governed cities in Europe. Historically South Africa was dominated either by the traditional system where power was inherited or by multi-national companies or individuals who wanted to make money out of their involvement in this continent. The Dutch philosopher J.H. van den Berg developed a philosophy called Metabletica on the theory of change. According to him we are now in the era of the babblers where people talk about everything. These talkers decide what is right and wrong since values and reason are things of the past. Capitalism has moved from the hands of multi-national companies into the hands of a new type of capitalist namely the billionaires (in dollars) of the 21st century. These super rich uses their connections with the new elite babblers, the politicians, to lay their hands on the resources of the world. They are not accountable to any shareholder or governments at all. In 1960’s independence came to Africa. The people thought that democracy would bring power to them. This was an illusion. Chesterson showed that behind almost every freedom movement there was a mining company helping them to get to power. Even the process for the so called “New South Africa” was directed by Anglo American and De Beers. They made a pact with the ANC in the 1980 that they will force the National Party to agree on peace talks with the ANC if the latter will allow them to move their money from South Africa to London. Both were realised. Any policy or plan should be confronted with the question who gains and who loses. In the last 20 years more than R800 milliard rand was misused by corruption. This might only be the ears of the hippo that is visible as the neo-colonialism of the super rich put much more into their pockets. This paper will address some of these issues and give guidelines to planners on how and what to do when confronted with this abuse of power by both groups. Instead of putting the money in the hands of the babblers or the super rich it could be used to make this country a better place. If not stopped this country will be bled dry by these two groups.

Keywords: Planning, theory, power, corruption, values, metabletica.

1. INTRODUCTION

“Whether or not power corrupts, the lack of power surely frustrates” (Forester 1982:67).

At the local level an escalation of civil unrest and protests are escalating in South Africa. People are frustrated by the promises of a better life and the right to basic services that are not kept while politicians and the rich get richer. Statistics on service rendering protests vary much, but all show that in the past five years it has increased.
"The number of service-delivery protests has increased fivefold in the five years of Jacob Zuma’s presidency. Police crime statistics this week showed that violent “public-order policing incidents” also increased – by 85%, from 1 014 in 2009 to 1 882 in the past financial year. Between April 2012 and March this year, police responded to 12 399 incidents of public unrest, of which 10 517 were regarded as ‘peaceful’” (Mbanjwa, X. 2013).

This paper will show how this frustration of a large part of the people not getting out of poverty and the poor achievement of promises made by politicians are the result of the abuse of even betrayal by people with political and/or financial power. The emphasis will be on what power is and how it is influenced by values, ending by how power of these groups must be confronted. At present planners in South Africa are not between the devil and the deep blue sea but caught between the schemes of the babblers and the billionaires. These two groups are the people with power. If we can stop this we will make South Africa a better place for all. They are either exploiting the system or through corruption making themselves and their friends rich.

2. LITERATURE REVIEW

In the Cambridge Advanced Learner’s Dictionary (Walter, 2008:1109) thirteen different definitions of power exists but this paper will deal only with power as the ability to influence or control the behaviour of people. This means political power, economic power and the power of planners by means of information. Forester (1982) identifies five perspectives on the use of information by planners but also addresses several types of misinformation that can be used by those in authority as a manipulative instrument for different types of power. In sections 5, 6 and 7 this will be dealt with in detail.

3. OBJECTIVES

The objectives of this study are to show that power is a continuum from absolute power to total freedom and that on this continuum two groups of people namely the babblers (politicians) and the billionaires have grabbed too much power. Instead of using their power to reduce poverty and the chances for a revolution by the poor in this country power is used for personal enrichment. Marcusse’s (2012:37) solution for confronting power in three steps namely Expose, Propose and Politicize will then be used to solve the problem.

4. APPROACH & METHODOLOGY

The paper is based on literature review. The methodology was to view different fields of study that could shed some light on the present power situation in South Africa. It is not about pinpointing individuals or organizations but about understanding the problem at large and then for planners to be able to do something about it when they take up their personal responsibilities.

5. PLANNING THEORY ON POWER

In 1964 Beckman (1973:262) saw the planner as a bureaucrat whose power is the "power of the idea" by which they will persuade the politicians in the correct direction. The next year this was followed up by Davidoff (1973:282-283) who argued that the planner is an advocate pleading "for his own and his client’s view of a good society". This was followed by Arnstein (1969:216-217) who showed that public participation is a categorical term for citizen power while pleading for citizen control on the top of the ladder of participation. Steyn (1998) shows that participation is value driven and people with different values use different levels of participation. Low and Walter (1982: 59) contend that:

"Values are embedded in the community institutions such as family structure, religious institutions, educational systems as well as the minds of individuals ..... the greater the diversity of ethnic type, socio-economic group or religious orientation, the less likely that the values of social rules applying to one group of individuals will apply to other local individuals or groups".
Forester (1989, 1999) and Healey (1997) although talking about power do this from a communicative rationality view, thus believing that using communication as power will solve planning problems. Flyburg (2002:353) accuses them of not understanding the world of realpolitik. His methodology is phronetic planning research which “runs from Aristotles to Machiavelli to Nietzche to Foucault” (Flyburg, 2002:353). Four value-rational questions stand in the core of his research in Aalborg namely:

- “Where are we going with the planning and democracy in Aalborg?
- Who gains and who loses by which mechanism of power?
- Is the development desirable?
- What should be done?” (Flyvbjerg 2002:356)

People with different value systems will have different answers for these questions.

The role of values

The When Dorothy, the main character in The Wonderful Wizard of Oz (Baum, 1900), with her three friends, the Scarecrow, Tim Woodman and the Cowardly Lion, arrive at the gates of the Emerald City they had to wear green spectacles for the duration of their stay in the city and thus found everything green within the Emerald City. This is confirmed Rapoport’s (1977:40) work in his understanding of the filters (glasses) people use to look at life (figure 1). People are thus influenced by their parents, their upbringing and their culture to have a certain world view. This value system is their pair of “glasses” like that of Dorothy and her friends. All thinking is thus influenced by values.

![Figure 1 The world as seen through filters (Rapoport 1977:40)](image)

This correlates with Goudappel’s development of the Urbanistics concept with the aim to merge the frameworks of reflection (thought) with that of action (doing) (Steyn 2011:1-12). Goudappel [1985:180] in his Urbanistics-concept differentiates between three levels of reflection, which might help to understand what the connection is between values, theory and practice, namely thinking on:

- The ideo-structure level deals with the ideals and values which directs human activities
- The super-structure level being about theorizing and organizational thinking
- The infra-structure level deals with the physical appearance of things and phenomena

Every philosophy or world view will deal with the meaning of life, with what are man and his society as well as with his relation with the environment. These issues are interrelated as they are the product of a ideological outlook. Four main stream philosophical-anthropological approaches are found in the West namely:

- A Christian view of man where the place of man among living creature is determined by his relation with God
- An idealistic rationalistic view of man where the uniqueness of man is located in his reasonability and his intellect
- The naturalistic view of man where man is a part of nature (and nothing special)
- The Marxist view of man who is a captive in the class struggle over production and labour disputes, and where labour and freedom are a prerequisite to be truly human (Nijkamp 1980:12).

7) In other parts of the world different religious outlooks may dominate.
In our modern world two extreme views on how a society should be governed and what power is can be demonstrated on a continuum stretching from total freedom to absolute control (figure 2).

<table>
<thead>
<tr>
<th>TOTAL FREEDOM</th>
<th>ABSOLUTE CONTROL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Result: CHAOS</td>
<td>DICTATORSHIP</td>
</tr>
<tr>
<td>CAPITALISM (in theory)</td>
<td>COMMUNISM (USSR-style)</td>
</tr>
<tr>
<td>Individualism</td>
<td>communalism</td>
</tr>
</tbody>
</table>

Figure 2. Continuum of power.

Both capitalism and communism are siblings of humanism where respectively man as individual or as group is the measure for what is right or wrong. Christians perceive that all power is from God, man is just a steward who does not have absolute power, but must govern according to God’s laws. Christians accept as most other religions that the choice is not for the one or the other of the extremes as the measure for what is right or wrong is something else.

According to Hall (1989:340) most planning practitioners have little interest in philosophical approaches and for this reason they contribute little to philosophical thought “whether baffled or bored by the increasingly scholastic character of the academic debate, they (the practitioners) lapsed into an increasingly untheoretical, unreflective, pragmatic, even visceral style of planning”. While the Marxist theoreticians were “mostly academic spectators taking grandstand seats” at what was happening in the field of planning practise (Hall, 1989:340). Allmendinger (2009:105) notes that “Neo-liberal theory has been highly influential in planning and other areas of state activity over the past three decades.” These neo-liberals are the combination of liberalism and conservativism. Where “liberalism stresses the individual, freedom of choice, market security and minimal government, while conservativism emphasizes strong government, social authoritarianism, disciplined society, hierarchy and subordination”(Allmendinger 2009:105).

According to Bond (2004) in his book “Talking left, walking right” shows that the South African style of governance is in line with the neo-liberal way of thinking. Thus the politicians (the babblers) and the free market capitalist (billionaires) have the same solution for South Africa’s problems, a high growth rate that will allow the rich to make money and in return will create the jobs that will exterminate poverty.

The babblers: Metabletica the theory of change

J.H van den Berg in his book Metabletica (1974) on the theory of change, describes change as a process that people at first reject, then wondered about and finally become worldwide accepted. A new idea will only flourish when the time must is ripe as it will need philosophical acceptance, but also the needed technology to be able to develop it. The concept development and sustainability both went through this process of acceptance and today are the buzz words in a politically correct world.

This process of change does not take place in limbo, but is influenced by the spirit of a specific time and era. Van den Berg (1977) identifies two spiritual revolutions that divide western history into three eras. The first revolution took place just before 1700 and the second around 1900. The era before 1700 was characterized by a belief in God and a general acceptance that all power was God given and the government form was a theocracy (Van den Berg 1977:150). After the first revolution of 1700 the era of science where rationality was the driving force behind all thinking. Man even tried to use this approach to science in the humanities. In this era the ideal parliamentary form was a democracy. After the second revolution we entered an era where everything was politics and had to be spoken about while the opinion of the majority was the criterion. In this era the form of the state was the psycracy.
coming from the Greek word psytho which means babble (Van den Berg, 1977:157). In this time of the babblers, the opinion of man was formed by the politically correct way of thinking and not by the morals or science. Modern man is manipulated by the media, the politicians, professional advisors and even academics who think that they are objective.

Nijkamp and Nijkamp-van Doorn argues that modern man’s vision is manipulated from the cradle to the grave by the media (especially television) and this erodes his judgment. “The TV set a salesman permanently assigned to one house, and often two or three salesmen working different rooms. The task of those who program television is to capture the public’s attention and to hold it long enough to advertise a product” (Kelemen, 2006:169). “What the advertiser needs to know is not what is right about the product but what is wrong with the buyer” (Kelemen, 2006:170).

From as early as 1957 Vance Packard in his books “The hidden persuaders” (1957) and “The Wastemakers” (1960) showed how Americans are stampeded into stores by a hurricane of advertising to buy shoddy goods. To a large extent modern man is materialistically driven and individually orientated with little thought of the consequences of his behaviour.

Although all people believe in something few practice what they preach. How do Christians or other religions deal with new Marxian social justice? People rather let the talk shows, the politicians and other people including academics who are good at talking do the thinking. They do not confront these babblers with the questions stated by Flyvbjerg: “who gains and who loses by which mechanism of power? Is the development desirable? What should be done?” (Flyvbjerg 2002:356)

Modern billionaires: a new species of capitalism

Capitalism according to Adam Smith in his The Wealth of Nations (1776) is based on the consumption that in a competitive free market, no participant is in the position to dominate the market. The self-interest of market players will produce unique conditions to maximize a society’s total utility. Unfortunately externalities influence the markets where due to imperfect information or imperfect risk markets or environmental externalities governments play an important role.

Capitalism produced a large number of millionaires and later a number of billionaires owning property and businesses in their country of origin. This later developed into international capitalism where multinational companies started to dominate markets. However, in the 1980s things changed as a new kind of billionaire, the oligarchs who have no shareholders or home nation and are “internationalized beyond any nation states wildest dreams” (Armstrong 2010:230). These people “has reshaped public discourse...through well funded think-tanks and media empires, as well as increasing influence within universities” (Mcquaig & Brooks 2013:96).

Confronting Power

Poverty is the most important issue to be addressed in South Africa if we would like to prevent an Arab Spring of anti-government protests, uprisings and armed rebellions in this country. Firstly, the problem will be stated, and then the half truths will be dealt with and lastly possible ways out of the maze will be shown.

In 2013 South Africa’s Gini coefficient at 63.1 was one of the highest in the world (Donnelly 2013). The Gini coefficient is a measurement of the income distribution of a country’s residents. South Africa’s is much higher than countries such as Brazil at 54.7, China 47.4, Russia at 40.1 and India at 33.4 (Donnelly 2013). Reducing this gap should be the government’s highest priority.

8 Sometimes it feels that in South Africa we have a kleptocracy .
9 The American “air power” is not their stealth airplanes but their television and Hollywood which is overpowering the world.
In doing this Marcusse’s (2012:37) solution for confronting power is in three steps namely Expose, Propose and Politicize will be used:

“Expose in the sense of analyzing the roots of the problem and making clear and communicating that analysis to those that need it and can use it. Propose, in the sense of working with those affected to come up with actual proposals, programs, targets, strategies, to achieve the desired results. Politicize, in the sense of clarifying the political action implicated of what was exposed and proposed and the reasoning behind them, and supporting organizing around proposals by informing action.”

Expose power at work

South African history is a history of power, either traditional power, political power or financial power. Unfortunately different views exist on why this situation has developed, but it must be confronted with facts.

In the beginning of the 1970s it has been estimated that there are well over a thousand chiefdoms in South Africa\textsuperscript{10}, Botswana, Lesotho and Swaziland (Potgieter 1970:148-151). A chief is the head of chiefdom but in most cases he is not a divine king as he usually does not rule on his own. However, they have much power and can be dictators like the well known Chaka or Mzilikazi or King Mswati III of Swaziland. Traditional power is thus mostly male orientated power and traditional leaders mostly look down on women. This split between traditional power and modern political power is a hinderance for governance in this country as some people would like to rule like a chief whether at present being a democratically elected official. Furthermore history is very simplified between haves and have nots, the first being the whites and the latter blacks. Demography of people and their role in different times in history is ignored. The modern urban legend is that all whites are settlers while in truth both blacks and whites are settlers as the Khoi and the San were given the status of the first indigenous people by the United Nations (Mukundi,.2009:2). It is easy to make all history just black and white but history is more differentiated. Diamond (1999) in Guns, Germs, and Steel: The Fates of Human Societies “argues that the gaps in power and technology between human societies originate in environmental differences, which are amplified by various positive feedback loops”. The difference between seed needed to plant in a summer rainfall area and winter rainfall area for instance kept the Xhosas from moving into the Western Cape.

For the whites it was first the multi-national Dutch company, the VOC who started a refreshing station at Cape Town to supply their ships with fresh food on their way to the East. They established a system of mercantilism where everything was controlled by the company by a system of licensing. They were not colonists as they only established six towns in 154 years. When the British took over in 1806 it was colonization and 55 towns were established in the next 70 years. Of the three big ideals of the British colonial expansion were bringing Christianity, Civilization and Commerce to the colonies. Unfortunately they lied about the first two and continued with mercantilism. The Afrikaner rebellion against the VOC and against the British is well documented (Floyd 1977, Gilomee 2003, Bruwer 1988, Möller 1999, Steyn2004). Peter Hall (1990:202) shows in a chapter called “The City of Monuments” that in colonial time town planning and architecture were used as symbols of power, especially in the layout of capital cities.

“In South and East Africa ... the British ... produced a number of instant capitals: Salisbury, Lusaka, Nairobi and Kampala. In all ... plans based on the fiction that these cities were completely white with perhaps a separate Indian bazaar area at a respectful distance. Africans were either assumed not to exist, since they were officially supposed to be farmers, or were herded into squatter reservations with the aid of mass deportations and pass systems. The Europeans would get the best, ... the Indians the next best, the Africans what was left.”

\textsuperscript{10} Michael O’Donovan from Quanta Analytics estimates there are 896 chiefs in South Africa – excluding the so-called landless chiefs (City Press 2012).
Mr Mosioa Lekota (2014) in a speech on “the development of democracy 1994-2014” said that the estrangement between the Afrikaners and the Blacks in South Africa was due to the manipulation of the British. “With Unification they gave the political power to the Afrikaners while the Anglo-Americans took the wealth of the country for themselves. In this way the blame for the political dispensation was not their’s but they could exploit the riches of the land and the labour of the inhabitants.” The British practised everything that went wrong with Apartheid before the Anglo-Boer War of 1899-1902 (Marais, 1998:93). Hut tax was introduced in 1884 in the Cape Colony to make African workers available for the mines (Smit & Booyse 1981:12-15). According to Pakenham Cecil John Rhodes in 1896 “as prime minister of the Cape Colony, intervened to prevent a coloured man, Krom Hendricks, from being included in a cricket team which had been selected to tour Britain” and “in 1893 Rhodes forced racial separation in public schools” (Marais, 1998:93)

In the middle of the twentieth century the colonial powers decided to give independence to their colonies. It can be debated if it was about liberating these colonies or was it cheaper? Chesterson (1965) came to the conclusion that it was not the communist countries alone that helped the freedom movements in Africa but that there was a mining house helping to finance the struggle. In “Tiny Rowland: the Ugly Face of Neo-colonialism in Africa” (EIR, 1993) this was confirmed about Lonrho’s role in Africa while Bond (2006:74) found that “mining houses has been central to looting Africa for at least a century and a half...”. The struggle in South Africa was not won in the bush war, but it was Anglo American and De Beers that made a pact in the beginning of the 1980s that they will hand the power to the ANC if they allowed the companies to move their money to London (Roodt 2004:22-23). They used the minister of Justice Kobie Coetsee and Niel Barnard the head of National Intelligence to start talks with Mandela on Robben Island without the knowledge of P.W. Botha and this led to the new dispensation. After this P.W. was removed from office in what could be described as a coup d’état and De Klerk took over the government. Barnard got a post in the Department of Constitutional Development and Provincial Affairs under Roelf Meyer, the man to whom F.W. de Klerk said “My God, Roelf you sold us out” (Louw,2001:270). This then gives a good indication of how the country was handed over to the ANC by the puppets of the mining houses. After 1994 the first moves of these multinational companies was to relocate to London. But it is not the end of the story as George Soros in 2003 at the Davos World Economic Forum confirmed that “South Africa is in the hands of the international capital” (Bond, 2003:vii), this while the ANC thought they took over the government in 1994. According to Bond (2006:74&158) in his book Looting Africa, neo-colonialism including China is assisted by African governments and NEPAD in looting Africa11

One of the first things the ANC nationalized was minerals. Prior to this the minerals belonged to the owner of the land. Not one objection was made by any mining company. Now they did not have to deal with various landowners to obtain the mineral rights. Through Black Economic Empowerment (BEE12) the mining companies got connections to blacks with political power and thus could lay their hands cheaply on more minerals. How does the son13 of a policeman, working for the mineworkers union until 1994 now own $700 million (R 7 billion plus) in 2013? Why does the Minister of Mineral Resources14 forget about his R20 million holdings in platinum mine shares when he does the mediating between the mine workers and the mining companies? (McKune 2014). The Arms Deal is most probably South Africa’s most well-known corruption case. Crawford-Browne (2012:17) writes that although Zuma was consequently an ideal candidate for bribery, he “may have had sticky fingers in connection with the arms deal, but they were not nearly as sticky as Mbeki’s.” This might be only the

---

11 In 2003 the current account of African Citizens accounts to an estimate of $80 billion while at the same time African countries owe $30 billion to those very banks (Bond, 2006:49).
12 Instead of helping the poor BEE became “black enrichment of the elite”
14 Minister Ngoako Ramathodi whose name comes up regularly if corruption is mentioned and is known promotes an autocratic kleptocracy (De Vos,2011).
tips of the ears of the hippopotamus. “A recent report of the Auditor-General found that unauthorized expenditure of public funds amounted overall to R2.9-billion (per year), irregular expenditure a staggering R28.3-billion, while fruitless and wasteful expenditure rose to almost R1.8-billion” (Mthethwa 2013:4).

The most common form of corruption is nepotism, tender irregularities and mal-administration and can manifest in different forms such as bribery, fraud and embezzlement (Mthethwa 2013:2-3). To make a better place of South Africa professionals should have an early detection instinct to know when something is just too good to be true. There are no free meals or presents without any strings attached. The bigger the deal the bigger the chances are that somebody wants to make some money out of it.

Propose

The government has some plans in dealing with poverty. This includes building RDP houses for poor people, improving education, giving grants for among others for children and expanding the public health service. All of these are good issues if handled in the right way and have helped to prevent a revolution.

Afrikaners were urbanized about fifty years before the blacks in this country. They got political power about fifty years before the blacks in this country. A lot can be learned from their experience as a people to uplift their own people. After the depression of 1929 the Carnegie Foundation gave money to look into the Poor White Problem in South Africa and produced five reports in 1932. The recommendations were that the poor Afrikaners must be urbanized and through education will be able to empower themselves (Wilcocks 1932).

Housing is not something that reduces poverty. People need jobs and then they could provide their own housing. Housing for the poor should be a temporary situation meaning that this type of housing should be at low rentals until the poor get out of their present condition. These houses should also be built where there are jobs. It is no good to build thousands of houses in rural places such as Philippolis where there are no chances to get a job or any type of development would take place. Houses should thus not be built to satisfy poor voters in voting for the government, but should be part of a development strategy.

In the past 20 years we have lost a generation of learners as most of them will get a certificate that is not worth anything. Education in South Africa has deteriorated although the Matric results look better on paper. Five years ago 50% of the Afrikaans second year students in Architecture at the Free State University could not write a sentence in Afrikaans. In 2012 South Africa got the 140th place out of 144 countries in maths and science and this year we are the last in Africa (Rademeyer 2012). South Africa’s Matric certificate is not accepted for an entry to most overseas universities while those of Lesotho, Botswana, Namibia and Zimbabwe are accepted. The government should put the education of the children before the rights of some teachers’ unions. Some better form of discipline should be introduced at schools to improve education. Free education should be for a certain number of years for instance twelve years and if you exceed it you must pay yourself. More technical education should be made available while communities should play a bigger role in the local education system.

Although grants helped to reduce poverty levels in South Africa in some cases it proved counterproductive. Poverty can only be reduced by either improving the economic growth or lowering the birth rate. Improving the economic growth is not that easy as there are no formulae and governments are not really good at it. In some cases young girls now get pregnant in order to lay their hands on the grant. However, grants can be used to reduce the birth rate. Double the amount for the first child in order to give it a better change in life, but the second child is the only one still receiving a grant. From the third child parents get nothing. In Brazil the fertility rate went down from 6.3 in 1960 to 1.9 in 2009 through mix of female empowerment and steamy soap operas on TV usually featuring small families (Gorney 2011:102). To register a new birth not only the mothers name must be registered but also the name of the father in order for him to take responsibility for the child. With the new and cheap DNA-tests this could be done easily. Schemes to create jobs for the unemployed must not be social handouts.
but must help to improve infrastructure and each person employed must do a certain minimum of work and bonuses must be paid to those doing more. Through these jobs people must get skilled to do more. It normally takes three generations to get out of poverty if people know it is their own responsibility.

So far as the public health service is concerned the government has to build many new clinics and hospitals. They are providing the hard services but in many cases the staff to man it is not available. Furthermore, human resources to supply and manage some hospitals are not up to standard as these senior appointments are mainly politically driven. If hospitals have to work only people who are able to do the job must be appointed in the health sector.

A list of officials and politicians who cannot do their work or are corrupt should be kept. Cadre deployment should not be part of the system.

**Politicize**

In our system an old white professor is a has-been and has no influence with the government. The people who can change South Africa are the thinking black person. They can make their voice heard in quarters where influence is located. They must take up the responsibility for their people and their country to put pressure on the government to stop corruption. Today enough black people with skills to make a change in the right direction are employed in influential positions. Just think about the role that people like Thuli Madonsela and Zackie Achmat play in terms of changing things in this country.

After 20 years of ANC rule politicians cannot go on blaming apartheid or colonialism for everything that goes wrong. The blame for things going wrong could not be directed to others but look at what has been done the last past five years. Yes, there are new economic forces to deal with like the billionaires of the world who bribe politicians to do their bidding. These people want to make money and they will invest if there is a stable government and people wanting to work. In 1948 when the National Party took over the government they had the same situation as the ANC are facing today, namely strong economic powers that do not support the government of the day. New legislation or political solutions to problems in South Africa should be tested against who won and who loses. Pressure must be put on politicians to be responsible to voters, especially on local level where ward councillors work in a specific ward. The political system must not be a top down system with a president having influence in appointing premiers or mayors but bottom up system.

The super-rich are in a position to move their money around the world and it is mostly in marketable securities. Nationalizing the mines or companies will not work as it is not the person mining the product that determines the price but those buying it. Buyers of natural resources are in the market to get the product on the cheapest possible method. In a documentary film by CNN “The Congo’s tin soldiers” the nightmare of what can happen when formal mining fails and informal mining takes over. In South Africa there are about 14 000 illegal miners in an industry valued 6 billion rand ($566 million) a year (Crowley 2014). If mining strikes have the wrong effect mines will close and the number of Zama Zamas will increase to fill the gap in production. It is an egg-dance trick which government must play with the super rich to get investment but not allowing them to exploit this country. Furthermore all politicians must declare their interest in any business or other transactions while officials must not be allowed to do any private deals. This must also include their spouses and family members. Anybody failing to do so must be severely punished.

6. CONCLUSION

Doing wrong things also imply not doing the right thing. Twelve years ago Peter Hall at a symposium held in Johannesburg in 2001 said in cities with informal hyper growth “the key problem is that the urban economy fails to keep pace with the growth of people” (Hall, 2002:8). Other problems include under education, poor infrastructure, lack of credit and the failure to access global markets. The solution

---

This could be seen at [www.youtube.com/watch?v=Io8e81xHLmw](http://www.youtube.com/watch?v=Io8e81xHLmw)
to all this according to Hall is “First to get the birth rate down, which means education, above all education for girls” (Hall, 2002:8).

It is not the two children of humanism, namely capitalism or communism that will solve the problems respectively through liberalism or radicalism of South Africa. It will be a reformation of society such as in the 16th century that changed the world dominated by the church in those days. Society must not be dominated by politics but ethnic communities must take responsibility for what is happening in their own backyard. The state must learn where the boundaries of their powers are and how they must protect their citizens against the powerful. Doing this will make South Africa a better place.

According to Flyvbjerg (2002:365) “The aim is not to tell planners in the usual manner how we think they can make a difference but to understand how ourselves may make a difference with the work we do”.

7. RESEARCH LIMITATIONS

As this study looked at the roots of power and corruption in South Africa it did not try to expose people in power and how they manipulate politics, economics and planning for their own benefit.

8. FURTHER RESEARCH

Further research on how planners who act as whistle blowers when confronted by these babblers and billionaires can be protected is necessary. Once people feel safe to expose the corruption it will be exposed and then new plans could be proposed and the matter could be politicized to such an extent that the culprits could be brought to justice.

9. REFERENCES


Baum, L.F. 1900 The Wonderful Wizard of Oz, George M. Hill Company, Chicago.


16 The Reformation gave the modern world the idea of sphere sovereignty that resulted in separating the authority of one entity (the church) to rule the total society. Now the different entities that form modern society consisting of the church, the state, the business, the school, the sport club and the family, are sovereign (Kalsbeek, 1970: 89). The autonomy of each entity thus guarantees freedom. No highest authority may exist on earth (Van Riessen, 1973 : 85 – 88). Without sphere sovereignty, state power is indefinately imperative, it has the power over persons, their life, their rights, their conscience and even their faith (Kalsbeek, 1970: 89). By accepting that the Creator established laws for people and laws for the natural world the rational mind could study this ordered universe (Hammond 2006:152, Steyn 1997:3-4). The Protestant work ethics as well as education of the masses led to the “highest standards of living, the longest life expectancy and the greatest advances in industry and medicine” (Hammond 2996:155). By permitting divorce “when all conversation, affection and respect between husband and wife had irretrievably broken down” women found protection as well as freedom of abuse and were thus empowered in Western society by Protestantism (Hammond 2996:146).


17 The Carnegie Commission produced five reports in 1932 on the Poor White Problem in South Africa.
Making Great Places through the Right to the City: A South African Perspective

J. I. (Anneke) MULLER 1

1 Stellenbosch University, South Africa
jimuller@sun.ac.za

Abstract

One of the challenges of sustainable development is negotiating the sharing of limited and unequally shared resources to meet the developmental needs of present as well as future generations. The building blocks for sustainable development has been described as brown (housing, sanitation and services), green (environmental), and red (human rights) development agendas. Human rights approaches to development are important ways to create great, inclusive, sustainable and more just cities and towns; probably even more important than spatial planning is. Human rights frameworks can be used to re-orientate policies and budgets towards the poor and their livelihood and to guide the competition for resources. The Right to the City is a relatively new urban right, first mentioned by Lefebvre in 1968 and since 2004 promoted by UN-Habitat and UNESCO, with the World Charter of the Right to the City adopted in 2005. It goes beyond socio-economic rights, and is about guaranteeing permanent access to all citizens (whether unemployed, disabled, illegal or poor) to water, sanitation, waste removal, energy, health care, education, planning and other services and benefits offered by the city. It has been described as being about promoting the fair distribution of the costs and benefits of urbanisation and the right to participate and appropriate or occupy and use urban space (beyond individual property rights), including for practices of the poor not to be criminalized. These approaches challenge the dominant social, economic and political order of neoliberal capitalism and through it, all decisions that produce urban space, since they reproduce the social relations of that dominant order. It also moves beyond liberal-democratic citizenship and is about a more transformative urban politics. The Right to the City focus on who has power and who not, and how this affects policy-making.

South Africa has a very progressive Bill of Rights, with a number of socio-economic rights, as well as other progressive legislation, but still our cities and towns socially, economically and spatially exclude and marginalise the poor and recent immigrants to cities. Many are without access to land to legally occupy and without sanitation and water, and have to endure forced evictions from their homes and increasingly also the destruction of their livelihoods in the informal economy, as recent cases in Johannesburg, Cape Town, eThekwini and Stellenbosch attest to. ‘Service delivery’ protests are becoming more numerous and violent, and it is clear they are about a lot more than a lack of services. This paper explores how the Right to the City perspective can help to make Great Places in South Africa and whether it require legal changes or just better implementation of legislation, or a different mind-set regarding human rights. How does it relate to planning legislation and land use management systems and to our present political systems? What lessons can we learn from Brazil, where the Right to the City is included in their Constitution?

Keywords: Human rights, the Right to the City, sustainability, spatial justice, Just cities, South Africa.
1. INTRODUCTION

South Africa (SA) is a country with many sustainability challenges, which include environmental problems such as climate change, biodiversity loss, acid mine drainage, water pollution, and water scarcity. At the same time, developmental problems that have to be addressed include extreme poverty and inequality; urbanisation that is faster than the provision of housing and services; a high incidence of HIV/AIDS; an economy that does not create jobs for the unskilled and low-skilled poor, who are most in need of it, as well as an education system that is failing to help break inter-generational poverty. In this context, it becomes very difficult to create great places, meaning cities and towns that are not just aesthetically pleasing and liveable, but also inclusive, sustainable and more just.

Planners, urban designers and environmental managers tend to focus on creating or protecting great places (with a sense of place, place identity, specific character or quality of life) through shaping and management of physical and land use changes (Parker and Doak, 2013: 166). However, a focus on promoting human rights and the Right to the City might be even more important in creating inclusive, sustainable and more just cities and towns. Swilling and Annecke (2012: xiii) mention the need for a just transition to sustainability, which deals with inequality. In SA we live in a very unequal society, and a truly sustainable society will require much greater social and economic equity. According to Agyeman, Bullard and Evans (2002: 77) environmental quality is ‘inextricably linked’ to human equality, and countries with more equal income distributions and more civil and political rights, also tend to have higher environmental quality. In the context of environmental injustice, the poor are usually also worst affected by environmental problems (despite the fact that they often contributed less thereto). The link between equality and higher environmental quality is probably also true with regard to the built environment. Equality should therefore contribute to the making of great places, which puts the focus on how to negotiate the more equal sharing of limited (and already unequally shared) resources to meet the developmental needs of present as well as future generations, while also dealing with large developmental backlogs from the Apartheid era.

In the context of limited resources, the use of market-based solutions have the implication that those who have a higher ability to pay, will be much better served than those with a low ability (Sager, 2013: 155). In order to address inequality, the globalised neo-liberal context for urban development is especially problematic, with its one-dimensional focus on cost-recovery, efficiency (without equity), deregulation, privatisation, rolling back the state, limitations on planning, and commodification of common spaces, services and resources like water, in the belief that “virtually all economic and social problems have a market solution” (Sager, 2013: 129). Market failure is also perceived as less important than state failure (with the state often seen as the problem) (Sager, 2013; Fung & Wright, 2003: 4). Even planning’s role in addressing market failures has come under fire (Sager, 2013: 130).

Clarke (2004, as cited in Sager, 2013: 130) claims that these neoliberal policies have also led to the ‘dissolving’ of the public realm, which has led to the view that “the market should discipline politics,... contrary to the social-democratic view that politics should discipline the market” (Sager, 2013: 130). Purcell (2002) believes that the neoliberal order has led to the “disenfranchisement of urban inhabitants”, with decreasing “control over decisions that shape the city” and with “new governing institutions at supra-national scale taking on more powers”. It has also led to more competition and less redistribution. According to Harvey (2008: 23) “[w]e live, after all, in a world in which the rights of private property and the profit rate trump all other notions of rights”. This has led to cities with uneven development and socially polarised communities. It is clear that liberal-democratic capitalism will not deliver basic needs to poor people, without interventions by the state.
In order to promote a more just and inclusive sustainable development (SD), an alternative to these neoliberal ideals can therefore be found in the notion of human rights and ‘The Right to the City’. The building blocks for sustainable development has been described as green (reducing human impacts on the environment), brown (environmental health threats in poor areas, linked to lack of access to water, sanitation, housing and livelihoods) and red (human rights) development agendas (Cock, 2004; You & Allen, 2001). The United Nations General Assembly (UN, 2012) endorsed the outcome document of the 2012 UN Conference on Sustainable Development at Rio about ‘The future we want’, wherein the concept of human rights is mentioned a number of times and the concept of sustainable development is clearly linked to human rights, including “the right to development and the right to an adequate standard of living” (UN, 2012: 2). The document also acknowledges “the critical importance of water and sanitation within the three dimensions of sustainable development” (UN, 2012: 23). The Sustainable Development Solutions Network which was launched in 2012 to contribute to the design of the post-2015 global sustainable agenda, also identified the building of inclusive, productive and resilient cities, with universal access to basic urban infrastructure and services, as one of the ten priority challenges of sustainable development (UN-SDSN, 2013: 8, 18 & 19). In addition the SDSN includes human rights and social inclusion, as well as the right to development, in their list of four related normative concepts that should guide any global framework to address sustainable development (UN-SDSN, 2013: 5).

SA has a long history of dreams of development based on human rights. The Freedom Charter by the Congress of the People (1955) was adopted only a few years after the Universal Declaration of Human Rights (UDHR) by the UN in 1948. But it was more than four decades later with the interim Constitution of 1993 and the final Constitution of 1996 that the first Bill of Rights officially became part of the SA legal and political system. Within this context, the question can be asked whether South Africa can learn from the ‘Right to the City’ concept.

This paper is an exploration of the literature on human rights perspectives and the ‘Right to the City’ concept, from various perspectives. It looks at how the slogan has been used in UN-Habitat and UNESCO policies, as well as countries such as Brazil. The specific focus is on how human rights and the Right to the City can contribute to great places that are inclusive, sustainable and more just. The lens of the ‘Right to the City’ is then used to explore the actual experience of urban development as it plays out in South Africa, making use of content analysis of laws, policies, plans, court cases and the media.

2. LITERATURE REVIEW ON HUMAN RIGHTS PERSPECTIVES

2.1 Introduction and History

After the Second World War, SA played a central role in the creation of the UN and was a party to the UN Charter when it was adopted in 1945, but in 1974 the policy of Apartheid led to SA being excluded from participation in the UN General Assembly (Liebenberg & Pillay, 2000: 83). The UN Charter already required countries to respect and promote a human rights culture, although it was only in 1948 with the Universal Declaration of Human Rights (UDHR) that content was given to what was meant by human rights. Today there are a number of treaties promoting human rights, including covenants on civil and political rights and on economic, social and cultural rights, and conventions on the elimination of racial discrimination; discrimination against women; and against torture; as well as on the rights of the child. The table below gives an overview of human rights developments, internationally as well as in SA.

<table>
<thead>
<tr>
<th>TABLE 1: HISTORY OF HUMAN RIGHTS DEVELOPMENT</th>
<th>Based on various sources mentioned in this paper</th>
</tr>
</thead>
</table>

The different types of rights (see table below) have been described as first generation, second generation and third generation rights (Vasak, 1977: 29). Civil and political rights are sometimes seen as the only genuine or first class rights, while the other rights are viewed as second or third class. Some Constitutions, like that of the United States, only include first generation rights. Socio-economic rights have been criticised for being “costly, programmatic, time-consuming and vague, leading to cases where the courts are unlikely to give clear and precise enforceable orders” (Pienaar & Muller 1999: 374). During the Certification of the 1996 RSA Constitution, the objection was also raised that these right allow the judiciary to encroach on the terrain of the legislature and the executive, since they will have budgetary implications, but the Constitutional Court argued that first generation rights could also have budgetary implications (Pienaar & Muller, 1999: 374).

**TABLE 2: THREE GENERATIONS OF HUMAN RIGHTS**

<table>
<thead>
<tr>
<th>GENERATION OF RIGHTS</th>
<th>Also called</th>
<th>Stand for</th>
<th>TYPES OF RIGHTS</th>
<th>OF OBLIGATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st generation</td>
<td>Blue rights</td>
<td>Liberty</td>
<td>Civil &amp; political rights</td>
<td>Negative–State should not interfere with individual liberties</td>
</tr>
<tr>
<td>2nd generation</td>
<td>Red rights</td>
<td>Equality</td>
<td>Social, economic &amp; cultural rights</td>
<td>Positive action required by State</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1945</td>
<td>United Nations Charter</td>
</tr>
<tr>
<td>1948</td>
<td>Universal Declaration of Human Rights (UDHR)</td>
</tr>
<tr>
<td>1955</td>
<td>Freedom Charter (SA)</td>
</tr>
<tr>
<td>1959</td>
<td>Declaration on the Rights of the Child</td>
</tr>
<tr>
<td>1960</td>
<td>Covenant against Discrimination in Education (UNESCO)</td>
</tr>
<tr>
<td>1961</td>
<td>European Social Charter</td>
</tr>
<tr>
<td>1966</td>
<td>International Covenant on Economic, Social and Cultural Rights</td>
</tr>
<tr>
<td></td>
<td>(came into force 1976); International Covenant on Civil and Political</td>
</tr>
<tr>
<td></td>
<td>Rights and International Convention on the Elimination of All Forms</td>
</tr>
<tr>
<td></td>
<td>of Racial Discrimination</td>
</tr>
<tr>
<td>1968</td>
<td>Henri Lefebvre’s book ‘Le droit a la ville’ (The Right to the City)</td>
</tr>
<tr>
<td>1973</td>
<td>David Harvey’s book ‘Social Justice and the City’</td>
</tr>
<tr>
<td>1975</td>
<td>Declaration on the Rights of Disabled Persons</td>
</tr>
<tr>
<td>1979</td>
<td>Convention on the Elimination of All Forms of Discrimination against Women</td>
</tr>
<tr>
<td>1986</td>
<td>Declaration on the Right to Development</td>
</tr>
<tr>
<td>1990</td>
<td>Cairo Declaration on Human Rights in Islam</td>
</tr>
<tr>
<td>1993</td>
<td>Vienna Declaration and Programme of Action (World Conference on Human</td>
</tr>
<tr>
<td></td>
<td>Rights) and Interim SA Constitution</td>
</tr>
<tr>
<td>1994</td>
<td>SA signed international Human Rights treaties</td>
</tr>
<tr>
<td>1996</td>
<td>Final SA Constitution adopted</td>
</tr>
</tbody>
</table>
2.2 Advantages of Human Rights approaches

Human rights create entitlements which can be claimed, and human rights frameworks can be used to transform and re-orientate policies and budgetary priorities towards the poor and their livelihoods struggles. The SA Constitution and the Bill of Rights can be used both as a sword (to attack) and as a shield (to protect), as has been done by various social movements, such as the Treatment Action Campaign (TAC), Shack Dwellers International (SDI) and Abahlali base Mjondolo (AbM) (Vartak, 2009; Business Day, 2012; Losier, 2009). However, this has been done in the knowledge that law mostly tends to serve the interests of those that can pay for their rights (Anderson, 2003). The law and courts can therefore also be viewed as problematic for building out human rights, since they are inherently conservative, being made up of elites. What is important is that the state has a very important role in building out human rights. Windfuhr (2000: 25, as cited in Uvin, 2007: 600) claims that “[a] rights-based approach means foremost to talk about the relationship between a state and its citizens”. Human right approaches therefore create certain obligations or duties for the state.

Conway et al (2002) also claim that “a [human] rights perspective draws attention to who does and who does not have power, and how this affects the formulation and implementation of policy”. According to Ho (2007), the unequal share of power to decide over the distribution of resources is the central cause of structural inequalities. These inequalities can be viewed as structural violations of human rights that systematically deny some people their basic human needs, and a form of structural violence (Ho, 2007). According to Ibhawoh (2011: 80) “human rights language is increasingly deployed for purposes of legitimizing, opposing, and negotiating power”. However, as much as they can promote transformative processes, human rights discourses can also “serve to insulate and legitimize power” and protect the status quo (Ibhawoh 2011: 80).

2.3 The Right to Development (RTD)

The right to development (RTD) is one of the third generation rights, adopted in 1986 by the UN. It was not adopted as a treaty, and is therefore without any binding force (Uvin, 2007: 598). It was also opposed by the USA, while eight other developed countries abstained from voting. According to Uvin (2007: 598) the idea originally came from the Sengalese jurist M’Baye in 1972 during the debates on the New International Economic Order (NIEO), when the developing countries was trying to (unsuccessfully) negotiate a reformed and more equal global economic order for trade, finance and aid. It was used as a claim by developing countries for equitable development and an international redistribution of resources, as a counterargument to the developed countries exclusive focus on first generation human rights. Ibhawoh (2011: 84) views this perspective as “a useful means of challenging Western economic hegemonies in a globalizing world and to claim development assistance and cooperation as a human rights entitlement”. Despite not being enforceable, this RTD has also been included in the Rio Declaration of 1992, the Johannesburg Plan of Implementation of 2002 and in the 2012 Rio +20 Vision, together with other green environmental rights. What it does illustrate is that the international community is bound into this global pact for development, as can also be seen in the Millennium Development Goals, soon to be replaced by Sustainable Development Goals (UN, 2012; UN-SDSN, 2013). To date it has however not greatly affected the unequal international economic order and has been relatively toothless (Uvin, 2007: 598).
In the preamble to the Declaration on the Right to Development, development is defined as “a comprehensive economic, social, cultural and political process, which aims at the constant improvement of the well-being of the entire population and of all individuals on the basis of their active, free and meaningful participation in development and in the fair distribution of benefits resulting therefrom”. The RTD has been described as all-encompassing and recognising “the interrelatedness and interdependencies of all aspects of human rights”; and that it is both an individual and collective right (Ibhawoh 2011: 84). In the context of this right, the Centre on Housing Rights and Evictions (COHRE, 2009), with reference to the Constitutional Court case of the Residents of Joe Slovo Community, Western Cape vs. Thubelisha Homes and Others (CCT 22/08) [2009] and the N2 Gateway project in Cape Town, questions whether one can view projects that violate housing and human rights, as ‘development’.

2.4 ‘The Right to the City’

This section looks at how the ‘Right to the City’ perspective has been used by various writers, in UN-Habitat and UNESCO policies, as well as how it has been implemented in countries such as Brazil. The specific focus is on the techniques and policies that are used to promote the Right to the City (including deepening democracy and participation).

The Right to the City is an important right for SA, where during Apartheid most Black families were denied the right to live in cities. Although influx control has been scrapped, cities now use the management of informal settlements (though anti-land invasion units) as a method to keep new poor arrivals out of these areas (Huchzermeyer, 2009) often without making available alternative legal spaces.

The ‘Right to the City’ dates back to 1968 when a quite radical version of the concept was first used by the French Marxist philosopher Henri Lefebvre. The late 1960s were associated with student and civil rights protests in the USA and in Paris (Harvey, 2008), reminding one of similar protests all over the planet since the financial crisis. Lefebvre stated that producing urban space involves reproducing the social relations that are bound up in it (Purcell, 2002: 102). To change these urban spaces, urban inhabitants therefore needed to be involved in all decisions that produce urban space. Lefebvre defined the Right to the City as “like a cry and a demand” (Lefebvre 1967, as cited in Marcuse 2009a: 189; Coggin & Pieterse, 2012). According to Purcell (2002: 100) Lefebvre created a “more radical ... and more open-ended vision of urban politics” than can be found in contemporary visions from the literature. He viewed the Right to the City as “a truly democratic challenge to marginalization, oppression [and] new forms of domination”. Purcell (2002: 100) views this approach as exciting because it radically “challenges and rethinks the current structure of both capitalism and liberal-democratic citizenship”. But he also as saw it as disturbing “because we do not know what kind of city these new urban politics will produce” (Purcell, 2002: 100).

In 1973 David Harvey published a book ‘Social Justice and the City’, which has also been quite influential. This was followed by a number of books and articles by him on the Right to the City (Harvey, 2008). According to Huchzermeyer (2009) the works of Henry Lefebvre and David Harvey on the Right to the City have filled the gap “derived from the Marxist ideology of nothing but a revolution”. Harvey (2008) discusses the city under capitalism as one that promotes inequality. According to him the neoliberal project over the last thirty years has been oriented towards privatising control and legitimizing neo-liberalism and the status quo. Harvey (2008: 34) claims that “a process of displacement and ... ‘accumulation by dispossession’ lie at the core of urbanization under capitalism”. The neoliberal city also illustrates a lack of democracy and a “political withdrawal from collective forms of action” (Harvey, 2008: 32). Harvey states that the democratization of the Right to the City, and the construction of a broad social movement to enforce it, is imperative “if the dispossessed are to take back
the control which they have for so long been denied, and if they are to institute new modes of urbanization”. Harvey also argues that attempts to achieve more just cities within the bounds of capitalism, without major structural changes to society, would be futile and destined to failure (Marcuse, 2009b:50).

Görgens and van Donk (2012) see the Right to the City as the struggle “against all causes of exclusion: economic, social, territorial, cultural, political and psychological”. For them the Right to the City is about guaranteeing permanent access to all citizens (whether unemployed, illegal, disabled or poor) to water, sanitation, waste removal, energy, health care, education, and other services.

2.5 Development in Brazil

South Africa can learn a lot from developments in Brazil, the poster child of the Right to the City. Brazil also has some similarities to South Africa. Both countries have a history of inequality and oppression. Brazil was a military dictatorship until 1985 and in 1988 promulgated its present constitution, while South Africa held its first democratic elections in 1994 and adopted its final democratic constitution in 1996. According to the 2013 Human Development Report and the World Bank’s databank, both countries are very unequal societies, and in 1993 the income Gini index of Brazil was 60.8 and South Africa 59.3. Brazil has since brought their Gini index down to 54.1, but SA’s index has increased to 63.1 (2009 data) (World Bank, 2013; UN, 2013: 153 & 154). In 1980, Brazil had a Human Development Index (HDI) of 0.522, which was lower than SA’s index of 0.57 (UN, 2013: 149). By 2012 Brazil’s HDI had increased to 0.73 (making it a high human development country), while that of SA increased to 0.629, a medium level of human development (UN, 2013: 149). In 2012 Brazil’s total population was nearly 4 times the size of that of South Africa and Brazil was 84.9% urbanised, compared to SA’s level of 62.4% (UN, 2013: 195 & 196).

Brazil has incorporated the Right to the City into its legal framework, in the form of the 2001 City Statute (Federal Law 10.257) which builds out sections 182 and 183 of the 1988 Brazilian Constitution, which deals with urban policy. This City Statute, adopted after pressure from social movements, promotes the collective and social (and user) value of land over the exchange (or commercial market) value thereof (as does section 182 of their Constitution). The “common good, safety and well-being of all citizens, as well as environmental equilibrium” is therefore prioritized (POLIS, 2002: 40, cited by Brown-Luthango, 2010) and individual and collective interest over land is also balanced. Section 183 of the Constitution makes it possible for people, who do not own any other land, to claim land of not more than 250m$^2$ on which they have lived for more than five years without interruption or opposition. The City Statute also makes possible the designation of special zones of social interest (ZEIS for ‘zonas especiais de interesse social’) to protect land in certain areas from real estate speculation. The City Statute therefore provides for a number of collective rights, including “the right to urban planning, the social right to housing, the right to environmental preservation, the right to capture surplus value and the right to the regularization of informal settlements” (Fernandes, 2007: 211). According to Fernandes (2007: 211 & 213) this new legal-urban order is based on the integration of urban planning, urban law and urban management, and on three interlinked processes of legal-political reforms: revival of representative democracy and wide participation; decentralisation of decision-making, and a new legal-administrative framework setting out the changing state-society relations. The two core pillars of Lefebvre’s Right to the City (right to habitation and right to participate) therefore forms the basis of these legal reforms (Fernandes, 2007: 211).

---

18 The Gini index is the Gini coefficient (between 0 and 1), indicated as a percentage. The higher the percentage, the higher the inequality.
The right to participate is another aspect of Brazilian policy that has been much admired, as in the system of participatory budgeting found in Porto Alegre, Belo Horizonte and more than 80 other municipalities in Brazil (World Bank, 2003; Baiocchi, 2003). From here, participatory budgeting has spread all over the world, to the UK, Europe, Canada, other Latin American countries, India and even Africa. Porto Alegre started their participatory budget in 1989 and over time the number of people involved in the budgeting process has steadily increased. One of the outcomes of this process is that access to water increased from 75% in 1988 to 98% in 1997, while access to the sewage system and sanitation increased from 46% in 1989 to 85% in 1997 (UNESCO, undated; World Bank, 2003). Further improvements included a quadrupling in the number of schools (together with a policy of participative and critical education - see Gandin & Apple, 2012); increased public housing, an increase in the budgetary allocation for health and education from 13% in 1985 to 40% in 1996; greater transparency and even increased municipal income as more people started paying taxes (World Bank, 2003). According to Goldsmith and Vaïner (2001: 2) “the reconfiguration of power in Porto Alegre is beginning to reduce spatial inequalities”. Unfortunately the poorest of the poor did not participate satisfactorily during the early years (inter alia because they did not have legal title to the land they lived on and they were afraid of being evicted), while the working poor and legal residents were well represented (Goldsmith & Vaïner, 2001; World Bank, 2003; Walker, 2013: 206). Another challenge is that the participative budgeting process was not constitutionally guaranteed, but was a mayoral initiative (World Bank, 2003). After 2005, when a coalition of centre-right political parties took office, the participatory budgeting process was moved from the mayor’s office to a newly created Local Solidarity Governance department, and the feeling of organisations of landless people were that tenure security was thereafter more difficult to obtain and that forced and even violent evictions became more common than under the previous Worker’s Party and their coalition of left-wing parties, who governed the city from 1989 to 2004 (Walker, 2013: 204 & 205; Gandin & Apple, 2012: 621). However, some land occupation groups, such as the ‘Three Women Land Occupation’ still obtained slum-upgrading projects through the participatory budget (Walker, 2013: 214).

2.6 The Right to the City and Participation

The focus within the Right to the City is therefore very much on real public participation and real democratic processes. The concepts of deep democracy and deliberative democracy (Appadurai, 2001, Fung & Wright, 2003; Gaventa, 2006a) are very relevant here. Appadurai (2001: 25) defines ‘deep democracy’ as the actions of movements of the poor (such as National Slum Dwellers Federations,) trying to claim voice and space, within cities with large numbers of very poor and disenfranchised, alongside large numbers of wealthy. Gaventa (2006a) contrasts various forms of deep democracy with “thinner forms of democracy associated with liberal and neoliberal thinking”. Similarly, Fung and Wright (2003) also views deepening democracy (which they call Empowered Participatory Governance) as an alternative to the liberal viewpoint of reducing the role of the state and politics. They give a number of examples of Empowered Participatory Governance all over the world, including the Porto Alegre case. They then mention six normative principles of this model (Fung & Wright, 2003: 30), namely that decision-making processes should be genuinely deliberative; decision should be translated into action and be effectively monitored by deliberative bodies; reforms should “incorporate recombinant measures that coordinate the actions of local [devolved] units [with some form of centralised coordination and power] and diffuse innovations amongst them”; these processes should be “schools for democracy”, where the actual outcomes should be better than under prior institutional systems.

The concept of deliberative democracy is similar to that of ‘planning by debate’ (Healey, 1992), also known as communicative or collaborative planning or critical planning theory (CPT), which has been
described “as a critical theory inspired by pragmatism and Jürgen Habermas’s theory of communicative action” (Sager, 2013: xi). According to Sager (2013) CPT is often criticised for not being able to deal with problems of clashing rationalities or differences in power and being open to manipulation, thereby being used to support and serve neo-liberalism (Sager, 2013: xviii). Sager (2013) however, focuses on how to revive CPT and to counter the problem that the rich are often served better by the neoliberal system.

In line with the concept of claimed spaces for participation (Gaventa, 2006b), the more radical versions of the Right to the City as developed by Lefebvre and Harvey would include, if deep participatory processes do not exists, for social movements to claim the rights of habitation and participation. Even the preamble of the UDHR accepts that human rights might, as a last resort, have to be claimed through rebellion:

“Whereas it is essential, if man is not to be compelled to have recourse, as a last resort, to rebellion against tyranny and oppression, that human rights should be protected by the rule of law”.

2.7 World Charter and other documents on the Right to the City

In 2005 the ‘World Charter of the Right to the City’ was adopted by the World Social Forum, with the support of UN-Habitat and UNESCO. It was developed in Quito, Barcelona and in Porto Alegre by networks associated with the World Social Forum. This version of the Right to the City guarantees access to all inhabitants of cities to progressively make effective the enjoyment of universal economic, social, cultural and environmental rights, based on the right that all citizens have to participate in urban planning, policy-making, budgets, regulation, management, a healthy environment (which includes the rehabilitation of degraded areas and facilities), historical and cultural heritage, and the renovation and improvement of cities (World Social Forum, 2005). Cities should guarantee citizens the right to access to public information, justice, public security, work, development, water, sanitation, waste removal, energy, health care, education, telecommunications, public transport and mobility, housing, an integrated and equitable city and a healthy and sustainable environment, based on participative planning. This charter unpacks and provides further detail for all these rights. A number of cities have since aligned them to this Charter.

UN-Habitat (2010) and UNESCO (2006 & 2011) have also brought out documents that promote the Right to the City. The concept of the Right to the City is becoming more and more popular and even the World Bank has published some documents about it, including recently (January 2014) organising a workshop about Inclusive Cities and the Right to the City. Huchzermeier (2009), however, describes the mainstreaming of the Right to the City within UN-Habitat and other organisations as “something of an empty buzz word, where the concept of grassroots autonomy and meaningful convergence is completely forgotten”. However, a number of these documents include very useful research and policy suggestions with regard to making great places. The UN-Habitat’s State of the World’s Cities report (2010: 21) for example proclaims:

The right to the city calls for a holistic, balanced and multicultural type of urban development. Therefore, it must pervade all policy areas, including land use, planning, management and reform, and it must do so in close cooperation with government agencies and civil society.

According to the UN-Habitat report (2010: 26) there are 5 strategic and practical steps required “to bridge the urban divide” and create more inclusive cities. These are:

(1) assessing the past and measuring progress; (2) establishing new, more effective institutions, or strengthening existing ones as needed; (3) building new linkages and
alliances among various tiers of government; (4) developing a sustained, comprehensive vision to promote inclusiveness; and (5) ensuring an equitable redistribution of opportunities.

2.8 The Right to the City and Spatial Planning

Spatial Planning has in the past been complicit in “sweeping the poor into the sea” (Watson, 2009). Planning legislation, with concepts such as land use and ethnic zoning, master planning, and modernist visions of the ideal city, has been shaped by ideas borrowed from the global North which does not suit the context of poverty, inequality, rapid growth and informality (Watson, 2009: 172). In Africa these laws have also been misused to motivate evictions from informal settlements and the destruction of livelihoods (Berrisford & Kihato, 2006; SERI, 2013). An alternative to this can be found in spatial concepts, such as the ‘Just City’ and ‘Spatial justice’, which have analogies to the Right to the City concept. The Just City concept can be traced back to Susan Fainstein, who in 1997 wrote about Amsterdam as an Egalitarian city, and later as a Just City (Fainstein, 1997, 2006 & 2010). She discussed the ideal of a good city that gave birth to the planning profession, specifically “the progressive/LEFTIST ideal of a revitalized, cosmopolitan, just, and democratic city”. She herself has defined the good city with reference to the concepts of “democracy, equity, diversity, growth, and sustainability” (Fainstein, 2006). Marcuse (2009a: 193) added to this list a city that promotes the full development of human capabilities and potentials. Others have also illustrated how the shape of the city, access to the public realm, or rights to citizenship, contribute to a good city.

Fainstein (2006) discusses the fact that a just city requires just means as well as just ends, meaning just social movement strategies and democratic processes, as well as just public policies. Open and democratic processes do not automatically lead to just outcomes, but according to I.M. Young (2000, as cited in Fainstein: 2006: 21) more democracy will lead to more equality. Justice also requires all levels of governance to support each other, since justice cannot just be attained by the local or city level alone (Fainstein, 2006). Fainstein (2006: 4) also discussed Dahl’s (1967) Chinese box problem of power versus participation: more participation and democracy is possible at the local level, but less power is available to be able to affect higher level outcomes; and more power is found at higher levels, but less democracy and participation of local communities is possible.

In her discussion of Amsterdam as an egalitarian city, Fainstein (1997) mentions a number of policies that promote a high level of equality, such as physical planning (with the goal of a compact, mixed-income city), excellent public infrastructure, high social welfare expenditure, a redistributive national state, the fact that the municipality owns most land within its boundaries and can decide what development happens where, promoting a specific socio-spatial mix through subsidised housing scattered throughout the city and discouraging displacement usually found with gentrification, public-non-profit partnerships, low rents, cross-subsidies for social housing, and some tenure rights for squatters. These policies went side by side with a very active civil society. She compared these policies to the pro-growth, pro-market policies of London and New York, which lead to exclusion and unjust development.

In an article ‘An in memoriam for the Just City of Amsterdam’, Uitermark (2009) claims that Amsterdam was never a just city, only a city that for a period aspired to be just, but which very quickly lost momentum. Uitermark (2009) mourns the death of the (aspirations to be a) just city and the social movements that fought for it, as neoliberal policies increasingly took over during the late 1990s. The original push for the just city came from social groups that protested against “the imposition of modernist fantasies on urban space”, the destruction of affordable housing and the lack of participation in planning. According to Uitermark (2009: 350) there are two essential preconditions for a just city, namely methods to ensure an equitable distribution of scarce resources (regardless of people’s
purchasing power) and methods to include and give residents control over the creation of their living areas.

A more recent concept is that of ‘spatial justice’ (Marcuse 2009b; Soja, 2009 & 2010). Soja (2009: 31) distinguishes spatial justice from other concepts such as environmental or territorial justice, regional inequalities and the urbanisation of injustice, stating that a critical spatial perspective has become widely recognised and applied as in the “spatialization of our basic ideas of democracy and human rights” and “in the revival of Lefebvre’s notion of the right to the city”. The socio-spatial dialectic means that space shapes the social, while the social also shapes space. Since space is socially produced, it can be socially changed. Soja (2009: 33) refers to Foucault who illustrated that “the intersection of space, knowledge and power can be both oppressive and enabling”. Soja views spatial injustice as both an outcome and a process, with class, race and gender as forces that shape spatial discrimination, as well as the political organisation of space (for example the identification of electoral districts, redlining of areas by withholding investments, exclusionary zonings, segregation, as in former group areas and homelands in SA, and the effects of colonial policies).

According to Marcuse (2009b: 52 -55) spatial justice is a derivative of social justice in a society, and there are two main forms of spatial injustice – the unequal allocation of resources over space and the confinement and segregation of any group in space. To address these spatial effects of social injustices, require spatial remedies, but these are not sufficient. The problem also requires changes to social, political and economic conditions.

3. OBJECTIVES/RESEARCH QUESTIONS

The objective of this paper is to use the lens of the ‘Right to the City’ to explore the experience of right-based development as it plays out in South Africa. It explores how the Right to the City perspective can help to make Great Places and whether it require legal changes or just better implementation of legislation (which is what the ‘service delivery’ problem is often viewed as) or, if what is needed is a different mind-set regarding human rights. How does the ‘Right to the City’ relate to planning legislation and land use management systems and to our present political systems? What lessons can we learn from Brazil, where the Right to the City is included in their Constitution?

4. APPROACH & METHODOLOGY

The methodology used, is that of textual and content analysis, as well as a critique of laws, policies, plans, court cases, speeches and the media through the lens of the Right to the City literature. The different versions of the ‘Right to the City’ approach mentioned above highlights a number of gaps in SA’s legal framework that needs addressing, in particular the lack of participatory democracy, as promised by the Constitution, and the lack of space (invited or otherwise) for civil society to negotiate the sharing of resources. In addition, urban policies that have been adopted since 1994 have done little to change the unequal, segregated and spatially unjust form of the Apartheid city. On the contrary, housing policies, property-led development and the economic reality of income inequalities have exacerbated the segregation and exclusion (Turok, 2008, 2011 & 2013).

5. RESEARCH ANALYSIS & FINDINGS

5.1 Human Rights in South Africa

SA is a country with widespread poverty and extreme inequality (NPC 2011: 8; StatsSA, 2011), and as already mentioned, inequality has increased between 1993 and 2009 (World Bank, 2013; UN, 2013: 154). It is also a country where the economy does not create jobs for those most in need of it, namely the unskilled and low-skilled (NPC 2011: 9 & 10) and where the education system is also failing people,
with many not even reaching matric, which is the minimum for many job opportunities (NPC 2011: 13). Despite over 3 million low cost houses having been built since 1994, the urban housing need is now nearly as big as it was then. According to the 2011 Census (StatsSA, 2011) there are presently over 3 million households who live in houses made of iron, zinc; cardboard, asbestos, mud, wattle and daub, thatch or wood, which include over 2 million households who live in informal homes, backyard shacks, caravans or tents and other types of homes not listed in the census (not including traditional homes). Over 1 million households have no access to piped water at all, while over 3.8 million households have access to piped water, but not on site or in their homes. Just over 1.7 million households use chemical toilets, bucket latrines, or have no access to toilets at all, while another 4.6 million make use of pit latrines.

Although the elimination of poverty and the reduction of inequality has been set as key strategic objectives by the government (NPC 2011: 7; NPC, 2012), many South Africans are still waiting for the establishment of “a society based on democratic values, social justice and fundamental human rights”, which would “improve the quality of life of all citizens and free the potential of each person”, as promised in the preamble to the 1996 Constitution.

5.2 The Freedom Charter

SA’s human rights history started nearly 60 years ago with the Freedom Charter of 1955, adopted only a few years after the UDHR, although SA’s first Bill of Rights as part of its Constitution only dates back to the interim Constitution of 1993, nearly 40 years after that. Many of the provisions of the Freedom Charter were taken up in the Bill of Rights, but there are a number of issues mentioned in the Freedom Charter which have not been included in the Bill of Rights and are still unresolved to this day. One of these provisions is the following:

“[t]he national wealth of our country, the heritage of South Africans, shall be restored to the people; The mineral wealth beneath the soil, the Banks and monopoly industry shall be transferred to the ownership of the people as a whole”.

Many groups, such as NUMSA and Julius Malema’s new political party, the Economic Freedom Fighters (EFF), still call for nationalisation, linking it back to the Freedom Charter (News24, 2013; Business Day, 2013). The reason for this is because South Africa might have been quite successful in the conflict transformation of political and perceptual structures, but not so successful in transforming economic conflict through the redistribution of wealth (Auvinen & Kivimäki, 2001: 77; Turok, 2008). Turok (2010: 266) also claims that “[p]olitical freedom has patently not been matched by economic freedom”. The fact that there is no work and security for many is still a major challenge.

Although the government has nationalised the private ownership of mineral rights by placing those rights in the care of the State (Budlender, 2011), and have done the same for water rights (through the National Water Act no 36 of 1998), this has not necessarily lead to a more equal dispensation. According to Budlender (2011) the Minerals and Petroleum Resources Development Act no 28 of 2002 lead to a rush of applications for mineral rights “which has been characterised by widespread corruption, fronting and abuse”. The Act has also lead to the dispossession of rural communities who had claims to minerals under their land and also created the possibility that these communities could suffer the destruction of their lifestyles and loss of the use of their land by mining without adequate compensation (Budlender, 2011). There have also been cases where politically connected persons were complicit in the exploitation of mine workers who were not paid while mines were stripped of assets (Plaut, 2011; Evans, 2012; Graham, 2012). Although the sentiment that “[t]he people shall share in the country’s wealth” is supported, it is therefore another question whether nationalisation will actually achieve this.

Although land reform has also been written into the property rights clause of the Bill of Rights (section 25), it too is not similar to the provision of the Freedom Charter that
“all the land re-divided amongst those who work it to banish famine and land hunger; The state shall help the peasants with implements, seed, tractors and dams to save the soil and assist the tillers”.

In fact, land reform has been very slow, not yet near the goal of 30% of SA’s white-owned agricultural farms, as set by government in 1994. SA’s white-owned farms make up about 67% of the 122 million hectares (ha) that SA is made up of (about 81.74 million ha). By 2012, about 7.95 million ha have been transferred in land reform projects. This is only about 7.5% of white-owned farms (Walker, 2012). Additionally a number of redistribution claimants opted for monetary compensation rather than land. Another of the criticisms against the government’s land reform policies is that they did not provide adequate post-settlement support to help recipients of land. This has led to a high failure rate of land reform projects, even though many projects might have improved beneficiary livelihoods (Cousins & Dubb, 2013). But since SA is already 62.4% urbanised, it is also problematic that land reform is seen mainly as a rural issue. Access to land in urban areas, whether for urban agriculture or housing, seems to be more important and is very much part of the Right to the City.

Regarding housing, the Freedom Charter stated that:

- “Unused housing space to be made available to the people”.
- “‘Slums shall be demolished, and new suburbs built where all have transport, roads, lighting, playing fields, creches and social centres’.
- “Fenced locations and ghettos shall be abolished, and laws which break up families shall be repealed”.

These provisions all link to policy issues that have not yet been satisfactorily resolved, although it is now mostly accepted that the demolition of slums is not what is required or what can be afforded by the country. The Upgrading of Informal Settlements Programme (UISP) of 2004 accepts that slums or informal areas should rather be upgraded than demolished, because they are often better located than new low cost suburbs. ‘The lack of housing space’ mentioned in the Freedom Charter is still a very problematic and unresolved issue.

Although pass laws and influx control may have been abolished in 1986, the lack of spaces in cities where poor people may legally settle and the manner in which informal settlements are managed by anti-land invasion units to keep newcomers out, can be viewed as ‘influx control by stealth’. In additional, temporary relocation areas (TRA), such as the Symphony Way TRA in Delft, Cape Town (also known as Blikkiesdorp) can still be seen as ‘fenced locations and ghettos’. Blikkiesdorp has been compared to a concentration camp or an alien camp from the film ‘District 9’ (Davids, 2010; Business Day, 2012):

- “Transit camps often look like concentration camps with razor-wire fencing, spotlights, single entrances and 24-hour police guards,” says shack-dwellers’ movement Abahlali baseMjondolo, which won the Durban High Court victory. “Residents are often highly controlled in these places, as if they are in prisons” (Hromrik, 2009).

These transit camps are the opposite of great places, and many of the issues mentioned in the Freedom Charter are therefore still issues that are relevant for the Right to the City.

5.3 The Constitution of the Republic of South Africa of 1996

SA’s 1996 Constitution has been called a Rolls-Royce (Govender, 2005). The very progressive Bill of Rights includes first, second and third generation rights (Pienaar & Muller, 1999: 373), which the State is obliged to respect, protect, promote and fulfil. According to Jaap de Visser (2003: 201) ‘to respect’ means that the state ‘should not interfere with the enjoyment of rights’; ‘to protect’ means the state must ‘prevent others from violating these rights’; ‘to promote’ means the state must ‘promote and encourage
the implementation of the rights, including through awareness campaigns’, and ‘to fulfil’ means the state must ‘take appropriate legislative, budgetary, judicial and other measures [including planning] towards realisation of these rights’. The main role of this Constitution and its Bill of Rights is therefore to promote an ongoing transformation towards a more equal society (Huchzermeyer, 2009).

Despite South Africa’s progressive Bill of Rights and a number of progressive policies regarding the upgrading of informal areas and free basic water and sanitation (which only becomes applicable as soon as people are connected to water and sanitation), the building out of socio-economic rights does not actually feature very highly in policy-making and planning (including integrated development plans (IDPs)) (Muller, 2006). A number of sections in the Bill of Rights require the state to “take reasonable legislative and other measures within its available resources”, either “to achieve the progressive realisation of this right” or to “foster conditions to enable citizens to gain access to” the specific right (sections 25(5); 26(2); 27(2). However, socio-economic rights are rarely mentioned in planning documents such as IDPs, and if they are mentioned, it is not linked to any strategies or plans to implement these rights. For example, since 1994 human rights have not been mentioned in any State of the Nation speech. Although mentioned in the National Development Plan’s Vision for 2030 (NPC, 2012), none of these references deal with the progressive realisation and building out of socio-economic rights.

Socio-economic rights have featured in a number of constitutional court cases, but the outcomes of these have been disappointing from the perspective of the Right to the City, with some progressive, and other very conservative decisions, where the courts have aligned “themselves with the neo-liberal conception of citizenship” (Coggin & Pieterse, 2012). Roithmayr (2011) and Bond (2011) questions whether, after the constitutional court case of Mazibuko v City of Johannesburg 2010 4 SA 1 (CC), rights-based litigation still has a role to play in advancing the interests of the poor. Bond (2011) mentions that court decisions on human rights “tend to be individualistic, anthropocentric, state-centric, and compatible with private sector provision of water supply”. He cites Dugard (2010) regarding the “[c]onstitutional court’s apparent retreat from enforcing socio-economic rights”. Roithmayr (2011: 317) argues that in the Mazibuko case the constitutional court “has embraced a neoliberal interest in cost recovery from the poor, and has declared cost recovery programs constitutional even when they infringe on socio-economic rights”. As alternative she recommends focusing more on the ‘commons’ than on ‘rights’, with the commons being the common spaces (neighbourhoods and cities) collaboratively created, based on common interests, values and collective well-being, mostly for non-market reasons, within a framework of material (infrastructure) and social, political and economic networks. According to her “no one group should have special access to the best parts of the commons” (Roitmayr, 2011: 329). This issue has come before our courts and Coggin & Pieterse (2012) mention that in the 2004 Victoria and Alfred Waterfront v. Police Commissioner, Western Cape case, dealing with an attempt to keep beggars out of the Waterfront, the court did recognise “that the city, and its urban space, belongs to all who live in it, particularly where the space possesses aspects that give it a public character”.

Another constitutional court case that went against the Right to the City concept is the 2009 case of the Residents of Joe Slovo Community, Western Cape vs. Thubelisha Homes and Others (CCT 22/08) in Cape Town, where the court gave approval for a community of 20,000 people to be relocated 20 kilometres away from their previous well located location, to make way for the N2 Gateway project (Huchzermeyer, 2009; COHRE, 2009). However, this eviction was so difficult and expensive to implement, that the government went back to the court in 2011 to withdraw the eviction order. Bilchitz (2010) also questioned whether the constitutional court was wasting away the rights of the poor in the Nokotyana v Ekurhuleni Metropolitan Municipality 2010(4) BCLR 312 (CC) case. This case was the first dealing with the right to sanitation, but according to Bilchitz (2010: 597):

In Nokotyana, the court avoided making any decision as to whether the normative content of s26 includes basic sanitation. The inescapable conclusion seems to be that for some reason the court was attempting to use all the tools it had to avoid giving definitive content
to socio-economic rights. Given their express inclusion in the Constitution and their importance to our society, this again appears to be an abrogation of the Constitutional Court’s most basic duty to interpret the constitutional provisions of the Bill of Rights.

Interestingly enough, the Freedom Charter does not directly mention water or sanitation as issues to be resolved, while access to sufficient food and water is mentioned in section 27 of the Bill of Rights, but not the right to sanitation. After 1994 the government started providing water on a cost-recovery basis, which was problematic since many people could not afford to pay for water. After a number of cholera epidemics and water protests, the government instituted a free basic water policy in 2001. The issue of water as a human right has however still not been resolved, and the South African Human Rights Council (SAHRC, 2014) brought out a report during March 2014, wherein they identified that the SA government still viewed the provision of water more as a commodity than as a human right.

Although the issue of sanitation is not mentioned in the Bill of Rights, it can be read into section 24, namely the right “to an environment that is not harmful to their health or well-being” (Tissington, 2011). Section 3 of the Water Services Act no 108 of 1997 extends the provisions of the Bill of Rights by including that “[e]veryone has a right of access to basic water supply and basic sanitation”. The lack of access to sanitation is very much a human right issue and social movements such as the Social Justice Coalition (SJC), a “grassroots social movement campaigning for safe, healthy and dignified communities” in Khayelitsha, have focused their effort on sanitation as a cross-cutting human rights issue that address the lack of dignity (section 10 of the Bill of Rights) and security, including the right “to be free from all forms of violence from either private or public sources” (section 12). This struggle for safety and justice in Khayelitsha is especially problematic as people are attacked and raped on their way to public toilets or the bushes to relieve themselves (SJC, 2012 & 2013; Ndifuna Ukwazi, 2014). The SJC even call their official newspaper ‘The Toilet Paper’.

The Constitution also does not protect livelihoods, which is problematic in the context of the lack of formal jobs. The State has been accused of being against the informal economic sector, with many examples of informal traders being evicted and livelihoods destroyed, mostly without any public process (ESSET, 2010; Charman, 2012). Recent examples can be found in 2013 ‘Mayoral Clean Sweep initiative’ of the Johannesburg Municipality (Rabkin, 2013; Evans, 2013), with similar evictions in Ethekwini (Ngubane, 2013) and Stellenbosch (Nicolas, 2014). Despite Cape Town’s supposedly more developmental approach to informal traders and a new set of informal trading bylaws in 2009 (Bamu & Theron, 2012), traders there also experienced a spate of evictions during preparation for the 2010 World Cup, with the upgrading of stations and other projects leading to forced evictions and the destruction of livelihoods (ESSET, 2010). Despite the progressive Bill of Rights, poor people in cities therefore still lack access to basic sanitation and water and experience forced evictions, destruction of their homes and livelihoods in the informal economy (SERI, 2013).

5.4 Spatial justice in SA Cities

The lack of spatial justice in SA cities is therefore still very problematic, with the effects of former group areas still clearly visible, but now exacerbated by the many low income areas that have been developed on cheap land on the edges of cities, far from work, good schools, existing social support systems and with higher transport costs. Spatial exclusion is exacerbated by social, economic, political and cultural exclusion (Turok, 2011 & 2013). After 1994, the new ANC government also started with a neo-liberal privatisation drive, creating a number of state owned entities. Well-located state land, which prior to 1994 was envisioned in a number of urban plans such as the Cape Metropolitan Spatial Development Framework (MSDF) for low-cost housing as a means to redevelop the Apartheid city, was instead transferred to these state-owned entities, to be sold off for profit.

The recently approved Spatial Planning and Land Use Management Act no 16 of 2013 (SPLUMA) includes the principle of spatial justice under its development principles (section 7), which includes that land development procedures must include provisions that accommodate access to secure tenure and
the incremental upgrading of informal areas (section 7(a) (v)). The Act also provides that the Minister must identify norms and standards regarding “mechanisms for identifying strategically located vacant or under-utilised land and for providing access to and the use of such land” (section 8 (2)(d)(iv)). According to sections 7(a)(ii) and 12(1)(h) spatial development frameworks (SDFs) must address the inclusion and integration of informal settlements, former homelands and areas characterised by widespread poverty and deprivation. Provincial legislatures have to determine procedures for the formalisation or incremental upgrading of informal settlements or slums, including matters relating to tenure and service provision (Schedule 1). Informal areas are mentioned 9 times in this Act, and it seems as if the Act intends to create a framework for land identification for and the upgrading of informal areas. Unfortunately it is at this time only a framework, which still has to be fleshed out by national regulations and provincial legislation and has not yet influenced the content of SDFs. This Act does not work well in conjunction with the Prevention of Illegal Eviction and Unlawful Occupation of Land Act no 19 of 1998 (known as PIE) and the Less Formal Township Establishment Act no 113 of 1991 (known as LeFTEA), which when drafted already did not link well with provincial planning and other legislation (Pienaar & Muller, 1999: 385 & 393).

Especially problematic is the lack of a national urban policy to deal with urbanisation (Turok & Parnell, 2009) and to address urban land reform, urban poverty and informality, and the progressive realisation of socio-economic rights. During 2013, a discussion document was published ‘Towards an Integrated Urban Development Framework’ (IUDF) (CoGTA, 2013), but this has not yet been followed up by a draft IUDF as was promised before the end of 2013. The discussion document does include some very relevant suggestions, such as that the ward committee system of public participation be rethought (CoGTA, 2013: 40). It does mention human rights twice (on pages 21 and 40): once in the context of urban safety, which is acknowledged as a human right, and once in relation to the remarkable progress that has been made by municipalities in advancing ‘universal access to free and basic services’. Although urban municipalities have invested quite a lot of money and time in providing services to the poor, this has not been enough to address the backlog of services built up during Apartheid, as well as the further need due to the natural increase of population, and increasing urbanisation (previously held back by influx control).

One of the main challenges is the lack of land identification processes for low cost housing in cities, especially since no legislation after 1994 directly required municipalities to identify land for low-cost ‘housing’ or informal settlement. Prior to 1994, the Less Formal Township Establishment Act no 113 of 1991 (LeFTEA) made provision for the designation of land for less formal settlement “when the Administrator is satisfied that in any area persons have an urgent need to obtain land on which to settle in a less formal manner, he may….designate.. land made available by him... or ... by a local authority as land for a less formal settlement”. This was done on an ad-hoc, case by case basis.

Just after PIE was adopted in 1998, Pienaar and Muller (1999: 396) indicated that:

“However, the Act [PIE] is lacking with regard to the prevention of unlawful occupation of land....No one can deny that it is extremely difficult to reach an equitable balance between sections 26(3) [No one may be evicted from their home, or have their home demolished...] and 25(1) [no one may be deprived of property...] of the Constitution. The newest addition to the land-related legislation might have striven to obtain that balance, but is bound to fail when provisions preventing unlawful occupation is still lacking. Proactive steps towards the early identification of sufficient suitable land for occupation are the only viable option”.

Despite PIE, evictions without adequate alternative land being made available are still a common occurrence in most cities. The destruction of informal homes has even been used against political opponents (Pithouse, 2013; Losier, 2009). In a very recent court case in the Western Cape High Court
regarding the Marikana community in Philippi, Cape Town, the court found the eviction of people without a court order unconstitutional, regardless of whether their shacks were complete or incomplete, occupied or unoccupied. This decision should make it more difficult for municipalities to deal with people who are threatening to occupy land, but will hopefully lead to fairer eviction procedures and encourage the identification of alternative land. However, just months later, in July 2014, the City of Cape Town and the SA National Roads Agency Limited (SANRAL) were in the news again when they evicted a large number of people in Lwandle, Somerset West, in the middle of the icy cold Cape winter with its pouring rain, with no alternative land or housing being made available.

PIE is unfortunately not very progressive about the requirement of alternative land, which is only required ‘to be taken into account’ if a community has been on private land for longer than 6 months or if they are evicted by an organ of state. However, the courts have rarely required identification of alternative land as a condition for evictions. What PIE however does, is to require certain socio-economic considerations to be taken into account when making an eviction order (sections 4(6); 4(7); 5(1) and 6(3)). The court has to decide whether it is just and equitable to evict unlawful occupiers and in certain cases have to take into account “the rights and needs of the elderly, children, disabled persons and households headed by women”. In urgent proceedings the court has to balance “the likely hardship to the owner” with “likely hardship to the unlawful occupier”. This however has not stopped the courts granting eviction orders even when these circumstances were present and it seems as if property rights always trump the right not to be evicted from one’s home. These socio-economic considerations that have to be taken into account, do not measure up to the ‘social use’ of land written into the Brazilian Constitution and City Statute.

There is also a lack of adequate (and separate) funding mechanisms and budgets to purchase well-located land for housing. Since 1994 all land had to be bought out of the housing subsidy, while prior to 1994 provincial authorities had separate budgets for land acquisition. This was the only reason why expensive land (such as Imizamo Yethu in Hout Bay) could be bought. After 2004, the Upgrading of Informal Settlement Programme (UISP) made available limited funding for acquiring land, and made provision that the cost of land will not be discounted against the consolidation subsidy. The 2004 version of the UISP (2004: 13) also suggested that state, provincial and municipal land and land belonging to public entities “should, where possible be made available free of charge and state land release mechanism must be enhanced to support this process”. This provision does however not feature in the present version of the Housing Code.

5.5 Protests, Participatory Governance and Deep Democracy

The Constitution refers to the concept of ‘participatory democracy’ in sections 57, 70 and 116, but SA does not seem to be on the way of becoming one. The Constitution also refers to participation in a number of other sections (152 and 196), where the “involvement of communities” and “participate in policy-making” is mentioned. Despite this, most policy-making in SA still happens in closed, so-called ‘uninvited spaces’ (Gaventa, 2006b). Unfortunately the Bill of Rights does not guarantee participation, although the constitutional court in recent cases has focussed a lot on the building out of ‘meaningful engagement’. However, this only focuses on engagement on a case by case basis and not on the wider lack of participative democracy in SA. The government’s building out of participation has been focussed around the concept of ‘ward committees’, which has not been effective, nor has ward

---

19 Iris Arillda Fischer and City of Cape Town vs. Persons whose identities are to the applicant unknown and who have attempted or are threatening to unlawfully occupy erf 150 (remaining extent), Philippi and Boitumelo Ramahlele and forty-six applicants listed in Annexure A to the Applicants’ notice of counter-application vs Iris Arillda Fischer and City of Cape Town, Western Cape Division of the High Court, Case 297/2014, heard on 11 March 2014.
committees been able to change power dynamics and focus more resources on the poor. All the focus is on local participation, with no higher level coordinated space to negotiate the sharing of resources, as required in the deep democracy literature (Fung & Wright, 2003: 30). The SA system therefore does not measure up to the Brazilian experience of participatory budgeting. Even the 2013 IUDF discussion document does acknowledge that the ward committee system needs to be rethought (CoGTA, 2013: 40).

In recent years so-called ‘service delivery’ protests have increased in number and in violence, due inter alia to social exclusion, a feeling of abandonment and a lack of authentic participation (Alexander, 2010; GGLN, 2011; Johnston & Bernstein, 2007; Pithouse, 2011; Von Holdt et al, 2011; Selmeczi, 2012; Trewhela, 2011). This has been countered by violence on the side of the police, which lead to well-publicised cases such as the murder of Andries Tatane in the Meqheleng township of Ficksburg and the 2012 Marikana massacre (Stewart, 2013).

It seems as if many communities don’t believe that there are valid platforms where they can negotiate their claims. The Bill of Rights have been used by some social groups such as the Treatment Action Committee (TAC) to advance rights to treatment for HIV and by AbM for access to housing and land, but as mentioned above, there are structural impediments that do not make the courts a good platform for negotiating the sharing of resources (Losier, 2009). The deep democracy politics of organisations such as the Shack/Slum Dwellers International (SDI), with their global networks, which focus both on constructive opposition to and co-production of policies with the government, seem to have been more successful in claiming spaces and resources, and in Cape Town, the local government has adopted the SDI’s re-blocking strategy as their own policy.

6. RESEARCH CONTRIBUTION

The contribution of this paper is to illustrate that despite the very progressive Constitution, SA legislation and policy still has a number of issues to address. Although the SA Bill of Rights already creates a powerful framework for the Right to the City, it has limitations, for example the lack of a direct reference to sanitation; the lack of protection of livelihoods and practices of the poor, as well as the focus on land reform as a rural issue. In addition the courts have taken a very narrow and conservative interpretation of some of these socio-economic rights. The biggest problem, however, is that a content analysis of SA policy documents and plans have shown that human rights approaches to development do not seem to be part of the way government views development, with no explicit policies, strategies and plans in place for the progressive realisation of socio-economic rights. The service delivery problem is often seen as due to a lack of implementation, but the present legal and funding framework contributes to municipal challenges. Even more importantly, government has to recognize that human rights require a different mindset regarding development, which cannot always be on a cost-recovery basis and needs the direct input of citizens.

7. CONCLUDING REMARKS

A more equal, inclusive and just society is a very important element of creating great, inclusive, just and sustainable places. As countries are urbanising, and sustainability becomes an urban issue, the ‘Right to the City’ should play an important role in promoting a more just form of sustainability. This right requires the state to accept responsibility for (and even welcome) newcomers to cities and towns. South Africa is still a very unequal society, with a history of denying poor Black families access to cities. Municipalities in South Africa are still not addressing this problem in planning or practice and are not creating adequate legal spaces for newcomers to cities and towns. In actual fact, present methods of managing informal settlements through anti-land invasion units, without providing alternative land
where people may settle legally, can be seen as ‘influx control by stealth’. What is needed, is a progressive national urban policy that addresses a number of issues, including broad participation, better integration of legislation regarding urban development, different funding arrangements, more urban land reform, making available well-located state land (for free), security of tenure for informal settlements, the progressive realisation of socio-economic rights, the protection of livelihoods and better strategies to address the Apartheid urban form.

If the government is serious about moving beyond paper rights, there need to be a change in mind-set, with human rights featuring in all policies and plans (and State of the Nation speeches). There should be strategies and implementation plans in place at all three spheres of government to address the progressive realisation of each right, and to address the structural impediments that jeopardize the vision in the Constitution of “a society based on democratic values, social justice and fundamental human rights”. As mentioned above, the right to housing is closely linked to the availability of urban land, and policies need to be put in place for the identification, purchase, planning and servicing of land for low income and informal housing, and for secure tenure for informal settlements. The spatial inequality of Apartheid cities require better integrated policies to address the problem, but these policies cannot just be spatial, but should also address social, economic, environmental and political issues. More importantly, the Right to the City requires the building out of deep democratic spaces where urban residents can claim resources, as in the participatory budgetary processes of Porto Alegre and other Brazilian cities.

8. RESEARCH LIMITATIONS

The attainment of spatial justice as an element of great places is an extremely complex and broad subject, and any research to help address this problem needs to be quite extensive. The limitations of time made it impossible to address all the elements of the issue to the extent required. The focus on content analysis, without interviews with key officials, also limits insights.

9. FURTHER RESEARCH

This paper was written before the publication of key policies, such as the long awaited draft Integrated Urban Development Framework (IUDF) by CoGTA. Further analysis of this is needed when eventually published, as well as of other policies that contribute to social and spatial justice.

10. REFERENCES


Bamu, P. & Theron, J. 2012 ‘Nothing about us without us’: A case study of the dynamics of the informal workplace at Mitchell’s Plain Town Centre, Development & Labour


Fernandes, E. 2007. ‘Constructing the ‘Right to the City’ in Brazil’. *Social and Legal Studies*, 16, 201-221.


Görgens, T. & van Donk, M. 2012. Exploring the potential of the ‘Right to the City’ to integrate the vision and practice of civil society in the struggle for the socio-spatial transformation of South African


Marcuse, P. 2009a. ‘From critical urban theory to the right to the city’. City: analysis of urban trends, culture, theory, policy, action, (Special issue: Cities for People, not for Profit) 13(2-3), 185-197.


11. LAWS AND POLICIES


12. COURT CASES

Fischer and Another v Persons whose identities are to the applicants unknown and who have attempted or are threatening to unlawfully occupy Erf 150 (Remaining extent) Philippi In re: Ramahlele and Others v Fisher and Another (297/2014) [2014] ZAWCHC 32 (13 March 2014) [Online] Available: http://www.saflii.org/za/cases/ZAWCHC/2014/32.html [Accessed 20 March 2014].


Revisiting Informal Settlement on Government Acquired Land:
A Case Study of Abesan Lagos, Nigeria

Abimbola OMOLABI, Dr. Pauline ADEBAYO
Disciplines of Architecture, Planning and Housing
University of Kwazulu Natal, Durban, South Africa
Email: bimboomolabi@yahoo.com; Adebayo@ukzn.ac.za

Abstract
The paper observes that the ever increasing population demand new urban land for housing, and that this has resulted in unprecedented development challenge in Nigerian urban centres, Lagos inclusive. The paper notes that over the years, Lagos has witnessed rapid population growth that characterised its development and emergence into megacity with attendant pressure on land for the housing supply of low income group. The paper appraises the effects of informal settlement on the well-being of residents of the study area through administration of 200 questionnaires. This is with a view to collecting information on household characteristics, housing condition and environmental indicators of the study area. This is to determine the relationship between the deteriorating environmental situation deriving from illegal encroachment on government land and the quality of life of residents. This study opines that despite the illegality, the ‘informal’ process provides the means for low income earners to gain access to land and housing outside the legal framework and regulations that prescribe the way land ought to be acquired and developed. Thus, rather than total eviction of the settlers from the illegally acquired land, the paper uses the concepts of healthy city and habitability as theoretical underpinnings to creating great places within the context of informal settlement towards enhancing the quality of life of residents. The paper argues that despite the efforts of government to manage the housing need of the low income group through different approaches the efforts do not appear to match the housing need of the group. The paper therefore concludes by addressing the identified development problems of informal settlement through upgrading strategy. It recommends community participation in the upgrading of the informal settlement with a view to creating a great place for an enhanced quality of life of residents of informal settlement.

Keywords: Habitability, Informal settlement, Low-income, Quality of life, Upgrading

1. INTRODUCTION

Informal settlement otherwise referred to as a shanty town or squatter settlement has been defined in various ways depending on the planning and legal framework of a country where it exists. For the purposes of this study, informal settlements are defined as residential buildings built on “planned” and “unplanned” areas which do not have formal planning approval. In the same vein, Menshawy et al (2011) defined it as neglected parts of cities where housing and living conditions are appallingly lacking, ranging from high density, squalid central city tenements to spontaneous squatter settlements without legal recognition or rights, sprawling at the edge of cities. They are characterized mostly by the low quality houses and the lack of inadequate infrastructure and social services. Informal Settlement (IS) has been perceived both as a problem and solution to housing needs in speedily growing cities of many developing countries such as Nigeria where informal settlements have been categorised into two types including the illegally occupied settlement and the illegally developed settlements (Srivinas 2005; Bello, 2009). It is noteworthy that illegal occupation of land by squatters is peculiar with government acquired land for various reasons that includes rapid rate of urbanisation. Indeed, in most cities of Africa, including Lagos, rapid urban growth is occurring in the face of economic stagnation or low economic growth, rising unemployment, financially weak municipal authorities, poor governance, and the absence of coherent urban planning policy (Cheru, 2005; Annez et al, 2010). Under such conditions,
structural adjustment, currency devaluation and state retrenchment, rapid urban growth has been an inevitable recipe for the mass production of slums and informal settlements (Davis, 2004, cited in Arimah undated.). For instance, Cole (1993) noted that the Land Authority in Zanzibar town between 1980 and 1990 was overwhelmed by the ever increasing number of urban dwellers who wanted land for shelter. He noted that deriving from the failure of the urban dwellers to obtain planned and serviced plots; individuals opted to buying pieces of urban fringe crop land and developing them without bothering to look for planned plots as the open alternative existed.

The situation is not different from what operates in some selected African countries including among others, Nigeria, Kenya, Egypt, Zambia, Zimbabwe and South Africa where informal settlements provide shelter to the majority of the urban population. Judging from what is happening in Igora Badiya-Lagos, Nigeria; Kibera-Nairobi, Kenya; Riyadh-Alexandria, Egypt; George settlement in Lusaka-Zambia; Chimambahuyo- Harare, Zimbabwe; Alexandria – Johannesburg, South Africa. It is possible to say that in Africa, from Cairo to Cape Town millions of poor urban dwellers reside in informal settlement. It is estimated that 166 million people or 73% of sub Saharan Africa’s urban population are currently residing in informal settlement (Matov, 2000; Wekesa et al., 2011).

The Nigerian case is interesting as Umezuruike (2003) cited in Ominrin et al (2003) posited that the single factor that has affected land market and hence land accessibility more than anything else is the Land Use Act of 1978. Apparently, the operation of the Act has resulted in two types of land markets such as the formal land market through government agencies and informal market operated by land owning families. Within the formal land market, Okpala (1980) cited in Bello (2009) averred that allocation criteria are exclusionary and only a very small proportion of upper income earners had access to land. This substantiates the view that the regulatory framework governing the delivery of planned residential land in many African countries may indeed facilitate the development of informal settlements through bureaucratic procedures that make land unavailable and unaffordable to low income households (Payne, 2005; Kironde, 2006; Menshawy, ibid). Given this background, it is highly unlikely that low-income households seeking to acquire land for housing would like to go through the arduous task of land acquisition processing. The direct implication is that most prospective low-income families rather than subjecting themselves to the hardship of homelessness, face several possible alternatives, which include the construction of unauthorized housing often on marginal land and reliance on low cost and locally available scrap construction materials, absence of restrictive standards and regulations. In addition, the family relies on family labour and artisanal techniques for construction, suffers from non-availability of mortgage or any other subsidized finance (Srinivas, 2005). This scenario does not only contravene settlements where building and land-use regulations are violated, but also lacking in basic amenities, compounded by sharing of space that are meant for fewer people; thereby leading to overcrowded habitation and overstretching of housing amenities. In which case, informal settlement and slum develop. This corroborates Wekesa et al (2011) notion that informal settlements provide shelter to millions of poor urban dwellers in developing countries who cannot access adequate shelter through formal channels.

Other related factors that aggravate proliferation of informal settlement include non-payment of compensation due to shortage of financial resources experienced by government, project abandonment, and change in government personnel often times prevent government to put the lands acquired in public interest into use (Bello, ibid). In addition, at the centre of informal sector is the issue of poverty. In developing countries cities, Lagos inclusive, land in the formal market remains expensive for the urban poor. There is a direct correlation between economic growth and poverty reduction. With an average of per capital of less than US$200, the majority of the population can be categorised as poor. Thus in a situation where the cost of purchase of 400 square metres ranges between US$4,000 to US$5000 depending on location, no low income earner has the capacity to purchase such. The only option left is for the low income earners to meet their housing need in an unplanned area where the cost of the land is reasonably affordable. Indeed, recent empirical observations in ten African countries according to Mattingly and Durand-Lasserve (2004) cited in Kihato and Royston (2012) revealed that majority of urban households in these countries acquire land through the informal land market. He pointed out that while these informal transactions are really legalised, they are accepted and supported by the social
networks within which the beneficiaries live. The informal land systems are effective enough in terms of the quantity delivered to be an alternative to formal urban land delivery system. They are less bureaucratic, and more flexible than formal systems. They are more effective in reaching the poor. However, their viability, sustainability and liveability raises a series questions as the system produces poorly planned areas with insufficient basic services as in the case of Nigerian cities. Thus, a vicious circle is created whereby poverty leads to informal settlement and informal settlement breeds poverty.

Nigeria is one of the most rapidly urbanising countries in Africa, and the challenges that come with this especially in the supply of adequate land for basic services, decent housing and other uses that make settlement great places to live in are major challenges that government face. This had led to the promulgation of land use Act of 1978 which seeks to nationalise the land tenure system. The Act according to Ojigi (2012) simply transferred the ownership of land to the state, which is to hold the land in public interest. The individual citizens or corporate bodies thereafter hold the possession of such lands and could continue holding such lands as if the holder has the statutory ownership of such land. Despite this effort, in most Nigerian cities including Lagos, the informal sector is the dominant provider of urban land and housing as only 20-40% of the physical development is carried out with formal government approval. The weaknesses of government planning controls according to Nwaka (2005) had resulted in haphazard development creating disorderly and unhealthy urban environment.

Life in cities is difficult for the urban poor particularly for those living in crowded, insanitary informal settlements. Housing is one of the basic human needs; it provides shelter in order for man to actualise his potentials in life and contributes to the growth of the world. When cities and middle class expand greatly, a method that is rare becomes commonplace to serve the expanding demand for home ownership. This provides the reason to advance factors of increases in poverty and inequity, combined with rapid population growth as responsible for creating substantial pressures on housing provision for the urban poor in the developing countries. Oshodi,( 2010) points out that one of the greatest challenges facing metropolitan Lagos is housing characterised by inadequacy in provision. This has invariably spurred the desperate urban dwellers especially the low income group to encroach on the government acquired land to meet their demand for shelter.

The issue and implications of mode of acquisition becomes worrisome, when residents of informal areas compare their housing conditions to similar kinds of housing in formal areas with a feeling that government apathy is unfair to their plight. Apparently, living in bad conditions along with the feeling of being unfairly treated often lead to frustration of many people residing in informal areas with particular reference to the impact on their quality of life. However, from the perspective of the United Nation’s expressed Article 25, of 1948 universal declaration on fundamental human rights as the right to a decent living, central to which is access to adequate housing as noted by Njathai, (2011), it will not be out of place to imply that informal settlements are the products of failed policies, bad governance, dysfunctional land markets and lack of political, improper distribution of funds and improper management.

In real sense, each of the failures tends to exacerbate the toll on people already burdened by poverty and constrains the enormous potential for human development that informal settlement offer as great places. Thus, the aim of the paper is to assess the effectiveness of the Land Use Act in facilitating access to urban land for housing for all citizens irrespective of financial standing. The main objective is to transform informal settlements to great places through upgrading strategy.

2. LITERATURE REVIEW AND CONCEPTUAL ISSUES

Housing supply shortage and the deterioration in the quality of the housing stock through ageing and lack of repair have become serious problems that need to be addressed in many developing countries. They are associated with informal settlement leads to the evolution of what is now termed as illegal settlement which was blamed in the 1970s on the tendency of the private land to marginalize the poor (Turner, 1980). In Nigeria, the deplorable quality of housing is reflected in the predominance of structurally un-sound and substandard houses in these areas, thereby compounding the housing needs of urban dwellers. The magnitude of housing needs in Nigeria is manifested in the number of households residing in substandard housing unit particularly in the informal settlement and slums area which is
estimated at 75% (Olotuah (2005; Nubi and Ominrin, (2006). Thus, it can be safely concluded that housing shortages have become the enduring feature of urbanising process in the developing countries.

The characteristics of informal settlement can be summarized under three different categories that including; physical, economic and social. The physical aspects include poor building conditions, overcrowding, poor environmental missing sanitation facilities, structures in elemental maintenance, presence of trash and rubbish; inadequate community facilities such as schools, play grounds, public water and sewage system as well as street and drainage facilities and adverse environmental influences. The economic side includes poverty, low income rate for the dwellers, illegal ways of increasing the resident’s income through drug dealing. On the social side is stigmatization and low human dignity that is often associated with living in such residential area. Others are social exclusion, bad behaviour and limited background (Srinivas, 2005; Morka, 2007; Manglin, 1967, cited in Bello, 2009; Menshawy et al, 2011; Ajayi, 2013). The aftermath of all these include unhealthy conditions and poor quality of life for residents.

The realisation of the physical and socio-economic characteristics of informal settlers exacerbated by poverty, as far back as the late 20th century stirred up proposal for solution to the problem of informal settlement. This finds expression in such strategies as total clearance and relocation, clearance and high rise redevelopment, urban upgrading, site and service; various housing production and delivery modes such as self-help and social housing among others (Ogunshakin and Olayiwola, 1992; Okpala, 1992; Pugh 1995; cited in Abbott, 2002; Balbo, 2001; Werna & Keivani, 2001; Wegelin, 2004; UN-Habitat, 2005). Contextually, it seems that the only viable option towards improving the housing quality of the inhabitants of the settlement in such area is that of urban upgrading which implies a package of basic services geared at improving the housing quality as well as the well-being of the community, complemented by regularization of security of property. The literature on housing quality revealed the commonly used indicators of housing quality to include structural adequacy, neighbourhood quality, residents’ perception of neighbourhood safety, level of public services provided, access to work and other amenities, room density and housing affordability (Okewole and Aribigbola, 2006). The quality of housing within any neighborhood should be such that satisfies minimum health standards and good living standard, but should also be affordable to all categories of households. The foregoing prepares the basis for the discourse on concepts of healthy city and habitability which are relevant to making informal settlements great places to live in.

CONCEPTUAL ISSUES
The concepts adopted in this study that are related to housing quality issue which are germane to making informal settlement great places include habitability and healthy city concepts.

Concept of Habitability
The concept of habitability explains the level of satisfaction derived by the tenants or residents from his abode. In order to evaluate housing habitability, applicable research approaches are based on their user’s reactions. For the purpose of this research, the system approach will be examined. This concept looks at the reaction of four mean sub-systems namely; the tenant (Man), shelter (dwelling), the environment and the institutional management (managerial arrangement).

Figure1: Conceptual model of Habitability
The concept of habitability reveals that housing is more than a shelter, this conception is applicable to dwelling units located in informal settlements. The components of housing are the people, man (tenant), the shelter, the institutional arrangement and the environment. These four components or sub-systems interact actively to produce the level of satisfaction and the level of satisfaction in turn determines the level of housing needs in a given place. However, habitability as used in the system approach assumes that what constitutes habitability varies according to the ambient circumstances, it is determined by technical and cultural factors and as such the habitability of housing at a particular point in time can only be defined meaningfully in the relative rather than in the absolute sense. Considering ‘man’ who is the occupant of the house, it is important to analyse his socio-economic characteristics as determinants of satisfaction level. The ‘shelter’ aspect of the concept is concerned with the conditions of the building he occupies. The institutional arrangement, concerns the management and maintenance of housing. The environmental sub-system emphasizes the role of physical planning in ascertaining the suitability of housing for human habitation based on planning standard with a view to enhancing the quality of life of dwellers of informal settlement. Here lies the relationship between the habitability concept and the need for sustainable upgrading of the informal settlements to make them great places within the urban system.

Concept of Healthy Cities

As set out in the World Health Organisation’s (WHO) constitution, health is defined as a “State of complete physical, mental and social well-being and not merely absence of infirmity”. In the same vein, Agbola and Kassim (2007) posited that WHO extended the conception of health to include sense of well-being and security. This notion provides the leeway for the application of healthy cities concept in creating great places out of informal settlements. The driving force in this regard is upgrading which has slowly come to be recognised as the primary mechanism through which great places can be made out of informal settlements towards improved living conditions for dwellers.

An understanding of informal settlements as great places is further reified by the accommodation they offer to the urban poor irrespective of rudimentary nature. Thus, if well managed, the settlements have capacity to cater for their future populations’ needs through the application of healthy cities concept based on the conception that basic services can be produced at a higher quality and a lower per capital cost when upgrading strategy is implemented. Consequently, the choice of interventionist approach made today by stakeholders will be a major influence on the extent to which great places can be made out of informal settlements. The relevance of healthy cities concept idea is a new way of solving an old problem is being emphasised. This is in line with assertion that the model’s specific objectives include improving the deteriorating quality of urban environment and accessibility of the disadvantaged member of the society to the basic needs without which their life will be miserable (Aregbeyan 1996 cited in Agbola and Kassim, 2007). In this sense, Hancock and Duhl (1998) definition of a healthy city as one that is continually creating and improving those physical and social environments that relate to the well-being of residents.

The concept is a pragmatic approach towards improving the well-being of the people through resource pooling and resource sharing among various agencies such as Community Development Association, non-governmental organisation, and local authorities. However, it is noteworthy that ideal perfect healthy city does not exist. It is a utopian dream and only a dream and vision towards which the process of developing a healthy city is directed. Some of the qualities that are associated with healthy city include; clean and safe physical environment of high quality including housing quality; strong mutually supportive and non-exploitative community; a high degree of participation and control by the public over the decision affecting their lives, health and well-being; meeting of basic needs that includes shelter, food, income and safety for all people. Others include diverse, vital and innovative city economy; a high health status associated with low levels of diseases. In addition, accessibility of optimal level of appropriate public health and sick care for all and town planning patterns that are compatible with the parameters listed above (Agbola and Kassim, 2007, P: 65).

3. OBJECTIVES AND RESEARCH QUESTIONS

The aim of the study is to identify the factors that aided informal settlements on government acquired land and to make such settlements great places for enhanced resident’s quality of life.

3.1 Objectives are:
To analyse the characteristics of informal settlements
To examine the socio-economic characteristics of informal settlements residents
To evaluate the significance of upgrading strategy as a mechanism of integrating informal settlement with the existing planned area.

3.2 Research questions
What are the factors that lead to informal settlement on government acquired land?
What are the characteristics of informal settlements?
What are the various interventionist approaches to informal settlement upgrading?
What are the policy implications of informal settlements upgrading?

4. APPROACH AND METHODOLOGY

Both primary and secondary data were collected and utilised in the study. The data requirement involved reconnaissance survey for detailed familiarization of the study area. Secondary data was used from existing literature text books, journal, publications and other research works related to the study. In addition, questionnaires and interview guides were used to gather some specific information from participants and the people living in the study area. The study area falls within Alimosho Local Government Area (LGA) which is one of the largest in Lagos State. Using geographical features, the study area was divided into three zones, and seventy questionnaires were randomly distributed out of which two hundred questionnaire were properly filled. The questionnaire administered was to the head of household. The information contained on the questionnaire includes socio-economic characteristics, housing conditions and quality of life. Simple statistical analysis was carried out.

5. ANALYSIS AND FINDINGS

Socio-economic characteristics

This section gives an indication of the breakdown of the socio-economic characteristics of the residents in the study area.

Table 1: Sex and tenure ship

<table>
<thead>
<tr>
<th>Sex</th>
<th>Frequency</th>
<th>Percentage (%)</th>
<th>Tenure ship</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>168</td>
<td>84</td>
<td>Renters</td>
<td>112</td>
<td>56</td>
</tr>
<tr>
<td>Female</td>
<td>32</td>
<td>16</td>
<td>Owners</td>
<td>88</td>
<td>44</td>
</tr>
</tbody>
</table>

ISBN: 978-0-86970-781-4
Table 2: Marital status and age of respondents

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>Frequency</th>
<th>Percentage (%)</th>
<th>Age yrs</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>160</td>
<td>80</td>
<td>under 25</td>
<td>5</td>
<td>2.5</td>
</tr>
<tr>
<td>Single</td>
<td>15</td>
<td>7.5</td>
<td>26 – 35</td>
<td>37</td>
<td>18.5</td>
</tr>
<tr>
<td>Widow</td>
<td>25</td>
<td>12.5</td>
<td>36 – 45</td>
<td>71</td>
<td>35.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>46 – 55</td>
<td>50</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>56- 65</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Above 65</td>
<td>25</td>
<td>12.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>200</strong></td>
<td><strong>100</strong></td>
<td></td>
<td><strong>Total</strong></td>
<td><strong>200</strong></td>
</tr>
</tbody>
</table>

Source: Field survey, 2014

Table 3: Educational status and household size

<table>
<thead>
<tr>
<th>Education Status</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Household Size</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>8</td>
<td>4</td>
<td>One</td>
<td>12</td>
<td>3.0</td>
</tr>
<tr>
<td>Primary school</td>
<td>48</td>
<td>24</td>
<td>Two</td>
<td>10</td>
<td>5.0</td>
</tr>
<tr>
<td>secondary</td>
<td>102</td>
<td>51</td>
<td>Three</td>
<td>15</td>
<td>7.5</td>
</tr>
<tr>
<td>Tertiary</td>
<td>24</td>
<td>12</td>
<td>Four</td>
<td>36</td>
<td>18</td>
</tr>
<tr>
<td>others</td>
<td>18</td>
<td>9</td>
<td>More than four</td>
<td>133</td>
<td>66.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>200</strong></td>
<td><strong>100</strong></td>
<td><strong>Total</strong></td>
<td><strong>200</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: field survey, 2014

Table 4: Occupational status

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public service</td>
<td>63</td>
<td>31.5</td>
</tr>
<tr>
<td>Self employed</td>
<td>47</td>
<td>23.5</td>
</tr>
<tr>
<td>Privately employed</td>
<td>21</td>
<td>10.5</td>
</tr>
<tr>
<td>Unemployed</td>
<td>31</td>
<td>15.5</td>
</tr>
<tr>
<td>Retired</td>
<td>38</td>
<td>19</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>200</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: field work 2014

Table 5: Length of stay and age of buildings in years

<table>
<thead>
<tr>
<th>Duration of Stay in years</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Age of Building in years</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – 2</td>
<td>11</td>
<td>5.5</td>
<td>Less than 10</td>
<td>7</td>
<td>3.5</td>
</tr>
<tr>
<td>3 – 5</td>
<td>21</td>
<td>10.5</td>
<td>11 – 20</td>
<td>17</td>
<td>8.5</td>
</tr>
<tr>
<td>6 – 8</td>
<td>28</td>
<td>14</td>
<td>21 – 30</td>
<td>23</td>
<td>11.5</td>
</tr>
<tr>
<td>9 – 10</td>
<td>33</td>
<td>16.5</td>
<td>31 – 40</td>
<td>50</td>
<td>25</td>
</tr>
<tr>
<td>Above 10</td>
<td>107</td>
<td>53.5</td>
<td>41 – 50</td>
<td>72</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Above 51</td>
<td>31</td>
<td>15.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>200</strong></td>
<td><strong>100</strong></td>
<td><strong>Total</strong></td>
<td><strong>200</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Field survey, 2014

Table 6: Monthly income

<table>
<thead>
<tr>
<th>Monthly Income</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than ₦18,000</td>
<td>57</td>
<td>28.5</td>
</tr>
<tr>
<td>₦18,000 – ₦39,900</td>
<td>89</td>
<td>44.5</td>
</tr>
<tr>
<td>₦40,000 – ₦60,900</td>
<td>41</td>
<td>20.5</td>
</tr>
<tr>
<td>₦61,000 – ₦83,960</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>₦84,000 – ₦105,900</td>
<td>5</td>
<td>2.5</td>
</tr>
</tbody>
</table>
Table 7: Mode of land acquisition

<table>
<thead>
<tr>
<th>Categorization of acquisition</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase</td>
<td>88</td>
<td>44</td>
</tr>
<tr>
<td>Inheritance</td>
<td>37</td>
<td>18.5</td>
</tr>
<tr>
<td>Government allocation</td>
<td>24</td>
<td>12</td>
</tr>
<tr>
<td>Transfer</td>
<td>11</td>
<td>5.5</td>
</tr>
<tr>
<td>Lease</td>
<td>40</td>
<td>20.0</td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Field survey, 2014

Table 8: Type of dwelling and housing conditions

<table>
<thead>
<tr>
<th>Type of Dwelling</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Housing conditions</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazilian type</td>
<td>150</td>
<td>75</td>
<td>Satisfied</td>
<td>51</td>
<td>25.5</td>
</tr>
<tr>
<td>Flat</td>
<td>42</td>
<td>21</td>
<td>Neutral</td>
<td>37</td>
<td>18.5</td>
</tr>
<tr>
<td>Duplex</td>
<td>8</td>
<td>4</td>
<td>Dissatisfied</td>
<td>112</td>
<td>56</td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>100</td>
<td></td>
<td>200</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Field survey, 2014

Table 9: Availability of housing facilities

<table>
<thead>
<tr>
<th>Availability of Facilities</th>
<th>Satisfied</th>
<th>Neutral</th>
<th>Dissatisfied</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>100(50%)</td>
<td>39(19.5%)</td>
<td>61(30.5%)</td>
<td>200(100%)</td>
</tr>
<tr>
<td>Kitchen</td>
<td>65(32.5%)</td>
<td>28(14)</td>
<td>107(53.5%)</td>
<td>200(100%)</td>
</tr>
<tr>
<td>Toilet</td>
<td>55(27.5%)</td>
<td>43(22.5%)</td>
<td>102(51%)</td>
<td>200(100%)</td>
</tr>
</tbody>
</table>

Source: field survey, 2014

Table 10: Access to good neighbourhood facilities

<table>
<thead>
<tr>
<th>Access to Neighbourhood facilities</th>
<th>Satisfied</th>
<th>Neutral</th>
<th>Dissatisfied</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical facility</td>
<td>80 (40%)</td>
<td>30 (15%)</td>
<td>90 (45%)</td>
<td>200 (100%)</td>
</tr>
<tr>
<td>School</td>
<td>50 (25%)</td>
<td>15 (7.5%)</td>
<td>135 (67.5%)</td>
<td>200 (100%)</td>
</tr>
<tr>
<td>Employment</td>
<td>70 (35%)</td>
<td>23 (11.5%)</td>
<td>107 (53.5%)</td>
<td>200 (100%)</td>
</tr>
<tr>
<td>Security</td>
<td>120 (60%)</td>
<td>30 (15%)</td>
<td>50 (25%)</td>
<td>200 (100%)</td>
</tr>
<tr>
<td>Recreation facility</td>
<td>63 (31.5%)</td>
<td>29 (14.5%)</td>
<td>108 (54%)</td>
<td>200 (100%)</td>
</tr>
<tr>
<td>Shopping facilities</td>
<td>121 (60.5%)</td>
<td>33 (16.5%)</td>
<td>46 (23%)</td>
<td>200 (100%)</td>
</tr>
<tr>
<td>Waste disposal</td>
<td>130 (65%)</td>
<td>10 (5%)</td>
<td>60 (30%)</td>
<td>200 (100%)</td>
</tr>
<tr>
<td>Road</td>
<td>89 (44.5%)</td>
<td>7 (3.5%)</td>
<td>104 (52%)</td>
<td>200 (100%)</td>
</tr>
<tr>
<td>Drainage</td>
<td>100 (50%)</td>
<td>30 (15%)</td>
<td>70 (35%)</td>
<td>200 (100%)</td>
</tr>
</tbody>
</table>

Source: field survey 2014

5.1 Discussion on Socio-economic Characteristics of Respondents

The sex composition of the respondents in table 1 indicates that 84% were male, 16% are female. Table 2 revealed that 21% are less than 40 years old, while the age range 36-45 constitutes 35.5% and 43%
constitutes above 45 years of age, and over 80% are married. The distribution appears to conform generally to the characteristic pattern of developing countries with high fertility levels and show young population that is active. Table 3 shows that over 84% of the respondents live in household of four or more persons living with their spouse, children and relatives. While 5% consists of two persons. The above indicates a high density area. On educational status, 16% had no formal education, 24% had primary education, 51% had secondary education, and 24.5% acquired tertiary education, while 9% had other forms of education. In terms of occupation, table 4 reveals that 31.5% are government employed, 23.5% are self employed especially in informal sector of economy including trading, transportation business, while 10.5% are privately employed as security personnel among others, 15.5% are unemployed, while 19% are retired. Table 5 shows that over 54% of the respondents had lived in the area for more than 10 years. An analysis of the household income in table 6 suggests that 28.5% of the respondents earned very low income of less than N18,000 per month, while 44.5% earned low income, and 20.5% earned moderate income. The subjective income categorization indicates that 5.5% earned medium income and 1% high income. In all, majority of the population earned above the recommended national minimum wage of N18,000 per month.

The question on tenure ship was framed to determine ownership of building. It was given priority to highlight the degree of investment in housing or other alternative respondents prefer to invest. The tenure ship status indicates that 56% of the respondents are tenants of the building they occupy, while 44% are landlords. In which case, over half of the populations are tenants who are urban new comers that are seeking for shelter trying to eke out a living. In terms of duration of stay in the area, since more than half of the population claimed they have lived in the neighborhood for more than 10 years, it could be inferred that encroachment became intensified over the past 10 years with a corresponding 30% influx of urban newcomers in the past ten years.

5.2 Discussion on Housing Quality and Residential Environmental Characteristics

Following the promulgation of the Land Use Decree in 1978, and the subsequent acquisition of the site earlier, an attempt was made to determine the mode of land acquisition in the study area. Table 7 gives an idea of the respondents and the respective mode of acquisition. 44% of the respondents acquired land by purchase, while 5.5% acquired the landed property by transfer from their parental lineage. Thus, it is safe to conclude that 44% of landed property in the study area was obtained through purchase for housing purposes as an object of economic investment from the so-called land owners. The information of building types was collected as a measure of providing guidance in future dwelling units, layouts and densities in the area. Besides, a reliable assessment of existing housing types would help formulate a framework for improving existing and new residential areas to meet future population increase. The presentation in table 8 revealed that 75% of the buildings are the Brazilian types, while 21% are flats and only 4% are duplex. The inference from the data indicates that the area is of a mixed residential building and densities. The study indicated that only 3.5% of the buildings are less than 10 years, 19.5% of the buildings inhabited by the respondents were built between 11 and 20 years ago, while the buildings erected between 21 and 30 years ago constitutes 23.5% of the dwelling units of the respondents. Whereas, buildings constructed between 31 and 40 years, 41-50 years and 50 years are 30%, 13% and 10.5% respectively. The data indicate that most of the buildings are old, explaining the observed nature of disrepair. In terms of water supply as indicated in table 9 that 50% of those interviewed were satisfied with the availability of the facility, while 19.5% and 30.5% of the respondents respectively are neutral and not satisfied with available water facilities.

With respect to access to neighborhood facilities casual observation of table 10 revealed that about 45% are not satisfied with the access to medical facilities, while 15% were neither sure of satisfaction or not, and 40% were satisfied. In terms of educational facilities, 67.5% of respondents were not satisfied, while 25% were satisfied; and only 7.5% were neutral. For employment opportunities, 35% were satisfied, 11.5% were neutral and while 53.5% were dissatisfied with access to employment. In the aspect of recreational facilities 54% of the respondents were not satisfied with the facilities, while 14.5% were indifferent and 31.5% were satisfied. For the shopping facilities, 60.5% responded that they were satisfied, 16.5% were indifferent, and only 23% were indifferent. With respect to accessibility to good road, 44.5% were satisfied and indicated that the roads condition were good, 52%
claimed they were not satisfied, they described the roads as narrow, with pot holes, and not good, and only 3.5% were neutral. In order to determine the number of building plans approved for development in the area, and to ascertain government presence or otherwise, a question was asked to seek whether the continuous sale of land to individuals was duly recognised by Government. Findings show that 67.5% have no approved building plans for their building, 2.5% did not respond 30% claimed they had building plan approval. As a follow-up to the question, 60% perceived that government would not have approved plans for haphazard development without a land-use lay out plan.

6. SUMMARY OF FINDINGS

The composition of age bracket interestingly reflects the perception of what constitutes quality of life to the different age group. The educational status to some extent determines the type of occupation an individual may engage, as well as their income which may influence the decision to locate and live in an area. The same factors may influence their perception to the quality of the environment they reside. The area is generally densely populated as majority of the household size is more than four. The high occupancy rate in the area has implication for pressure on the available facilities and quality of life of people. On the other hand, it makes more people available for community participation in upgrading exercise. Most residents have lived long enough in the settlement to know the aspect of residential neighbourhood that requires urgent upgrading priority.

Generally, about 48% claimed that they would have been happier if they have better access to good neighbourhood facilities and infrastructural facilities. While access to better medical facilities is the priority for the older age bracket, the middle age bracket prefers availability of more schools in their neighbourhood and the youth preferred better recreation facilities.

Findings on the mode of land acquisition revealed that 44% got through purchase. The singular reason given by the respondent is the ease of acquiring land for developmental purpose under the operation of Land use Decree. However 67.8% of the respondents do not have building plan approval. On the other hand, none of the respondents that claimed they had approved plan for their building was able to produce convincing evidence of such approval except for receipts of processing and assessment fees. This indicates illegality.

When asked about the willingness of respondents to participate in any strategy that will improve the living condition of their neighbourhood, 88% of the respondents claimed they are willing to participate in the upgrading of their neighbourhood. The reason is based on the conviction that it would enhance their quality of life without being displaced. In addition, their willingness hinges on the fact that the investments they have already made to their properties remain and enhanced, which is considered significantly better than relocating them to a costlier alternatives that are less acceptable to them. Other respondents that are unwilling to participate are concerned with the cost implication.

7. PROPOSAL

The promulgation of Land Use Decree in 1978 was to make the law which governs the ownership, use and public acquisition of land uniform across the country. The decree was welcomed with optimism especially by the spatial planner thinking that it would increase efficiency of land use management through better planning. The general flaws in the implementation of the decree due to its complexity short-lived the optimism of urban planner. For instance, contrary to what was operational before the promulgation of the decree, individual could divide the parcel of land in accordance with zoning regulation and present same for approval in the planning office before developing or disposing it. The decree does not allow individual to possess undeveloped land in excess of half an hectare in any one state. The consequence is that many unapproved layout and haphazard development continue to emerge and aggravates planning problem given the concession for regularization.

Lagos will continue to expand in area and increase in population. Available evidence by the World Urbanisation, Prospect (The 2011 Revision) indicates that Lagos is the seventh fastest growing city in the world. It is therefore necessary to prevent future proliferation of informal settlement in Lagos and its environs. Thus, land should not be acquired unnecessarily under the guise of the public interest section of the Land Use Decree. When land is acquired, it should be monitored, policed effectively and
used promptly for the purpose of acquisition. For the existing informal settlement it will not be socially and economically justified to turn a ‘blind eye’ to the settlement in situ and pursue other programmes like new towns development or mass housing provision for the low income group. In the same vein, eviction of squatters for the purposes of clearance and redevelopment will destroy the existing social network; result in loss of household investment and fixed capital asset leading to further impoverishment of the people concerned. Thus, the bulldozer approach that entails eradication and relocation aside from the failure of the approach in many cases including Maroko in Lagos, Nigeria and George settlement in Lusaka, Zambia (Bello, 2009; Abbott, 2002); Such solution to informal settlement tends to make the government become unpopular among the people. Given this background, the option of upgrading becomes more appropriate for enhancing the quality of life of residents of the informal settlement.

Upgrading programmes are locality-based improvement strategies designed to improve informal settlement. As a curative measure, what is being proposed here is an integrated approach to the upgrading which is an intervention in the physical, social, economic and juridical structure of the existing settlement Acioly (2001). It operates more efficiently through the public, private partnership complemented by the community development association, non-governmental organization as well as international development agencies. The advantage the upgrading strategy has over other strategies is that it occurs with minimum loss of physical assets and disruption of livelihoods and social support systems through its operation as a bottom-up approach for a sustainable urban development process by involving the community members in the planning and implementation of the strategy. It tends to be a cheaper alternative over other strategies judging by the expression of willingness by the majority of the residents of the settlement to partake in kind and cash in the upgrading strategy.

What readily comes to mind for the proposal is piecemeal upgrading of the informal settlement with support based approach. The support based intervention is advocated where by the government continues to initiate and the effort is complemented by the community based support. The first step is to aggressively encourage regularization of the security of tenure of property owners. This will allay the fears of possible ejection from the area and will spur the residents to invest in the improvement of their properties and environment. In the same vein, more private developers will be attracted to the area for possible investment in the provision of infrastructure and services with a view to addressing poverty. However, the procedure needs to be made less tedious and with human face bearing in mind the socio-economic characteristics of those concerned.

The next stage is the empowerment of the residents of the area in income generating activities that will enable them to participate fully in the provision of missing community facilities in a piecemeal manner within the area. Real community participation by committees representing beneficiaries is essential at all levels from strategy level down to project implementation level. To this end, participation in all aspects of provision including the construction of infrastructure, maintenance of the area including refuse clearance, road maintenance, community facilities and paved ways are desirable. Improved road network is capable of reducing social exclusion by improving the access of residents of informal settlement to various employment and activity nodes. This is particularly important, given the fact that informal settlements are far removed and disconnected from the main urban fabric with residents being cut off from the city; and often have to endure longer commuting times and higher transportation costs.

It is important for policy at various levels to recognise that due to economic reasons, the bulk of housing for the urban poor will always be built by the poor themselves, judging by the failure associated with government various interventions approach. Consequently, because the population of the city will still increase, and the majority of people will continue to rely on the informal sector of economy for subsistence, there is a need to adopt a strategy that will address the need of the poor.

What is being proposed is the preparation of a structure plan which is a planning policy framework for the settlement. The structure plan should be prepared under the Regional Policy of the Lagos State Government. The aim of the structure plan is to subject the social, economic and physical systems of the settlement to planning control. The structure plan is expected to guide both the structural changes and possible direction of growth within the settlement and its environs. Under the framework of the structure plan, the proposal is made for the preparation of action area plans as at when necessary. Within
the context of good governance principle, this proposal calls for collaboration between the Federal and Lagos State Government.

8. CONTRIBUTION TO KNOWLEDGE

The research contributes moderately to knowledge of housing experts especially in the private sector practice in assessing and appraising the various initiatives needed in the urban upgrading and enhancement of the residential neighbourhood quality. The act of urban upgrading in improving the sustainability of an area is a necessary model of housing stock supply. It is an option that while improving the living environment and condition by making it more habitable and conducive with the necessary facilities that are needed qualitatively, improves the available housing stock and condition quantitatively to basic housing need of the people. It contributes to efforts in sensitizing various stakeholders in enhancing effective public, private and citizen participation to roll back poverty, and promote environmental sustainability.

9. CONCLUDING REMARKS

The study created the opportunity of identifying various problems associated with development of informal settlement which precedes development in our major centres. It is important to establish the fact that informal settlements are characterized by physical and socio-economic conditions that are adverse to good quality of life of residents and are therefore not sustainable. The problem is associated with the ever increasing population arising from migration of people to Lagos. This has put much pressure on land availability for development.

Informal settlements ought not to be seeing as worse places within the urban system. Rather they should be seeing as playing complementary role to the overall growth of the cities in developing countries providing shelter to millions of poor urban dwellers who have the right to city living but cannot access adequate housing through formal channels. To this end, the informal settlements are real and appropriate handling of the problem requires a lot of political will and financial commitment on the part of government. Since the resources available to government for the provision of essential facilities are limited, government should exploit the possibility of public private partnership initiative between government bodies, community organization, non-government organizations as well as the private sector. This requires the empowerment of the residents in terms of training and guidance to get solutions that would be self-sustaining and replicable. The issue here is that if the government and local authorities are unable to upgrade these settlements, for one reason or another, it should acknowledge and encourage the residents themselves to take matters in their own hands while following the government policy towards making informal settlements great places using the concepts of habitability and healthy cities. This is more so, when people are their masters of their own destiny. Indeed, participation will not be meaningful if the people involved have no control over decisions taken by the organization to which they belong. After all, effective participation is achieved through de-concentration and de-centralization.

10. RECOMMENDATION

In view of continuous high rate of urbanisation, and demand for housing need, it is recommended as a matter of policy that simple and affordable building technologies that are responsive to the needs of urban poor are provided in a subsidized manner. This will address the socio-economic needs of the poor while providing job opportunities within the urban development and housing sector. One way to make informal settlements great places is to prevent further emergence of informal settlement. The recommendation here is prompt occupation and proper policing of the government acquired land to prevent further encroachment.

11. LIMITATIONS

Abesan the study area is large and delineation of the sample size and sample frame was quite tedious for an effective and efficient coverage. The un-cooperative attitude some of the respondents in releasing information in some cases is a limitation. This is because such was regarded as private and personal, thus causing unnecessary delay in the data collection exercise.
12. FURTHER RESEARCH
Further research is recommended into the building technology that is adaptable taking cognizance of the needs of the low income group in terms of technical- knowhow and their socio-economics.

13. ACKNOWLEDGEMENT
The author acknowledges Mr. Erinle Sola and Bolarinwa Oladipupo for assistance in the area of literature and data collection.

14. REFERENCES

Acioly, A. J. (2001): The Rationale of Informal settlements Regularization Projects: From Settlement Upgrading to Integration Approaches. Institute for Housing and Urban Development Studies

Ajayi, B 2013,(ed) ‘Urban Regeneration’ in Perspectives on Urban and Regional Planning in Nigeria; A collection of Papers and Speeches Penthouse publications (Nig).


Balbo, M. 2001, Shelter emerging trends and policies, Habitat Debate vol.2 no.3 ,


Cole 1993,National Land Use Plan; Appraisal: Analysis of Potentials and Issues(NLUP_S.02); Zanzibar.


Njathi, M-E., 2011, ‘The challenges of Housing Development for the Low Income Market’ Research project submitted to Strathmore University for Bachelor of Commerce (Microfinance and Business Administration majors).


Franca U. Agamah¹, Prof. Ambrose A. Adebayo²

Disciplines of Architecture, Planning and Housing,
School of the Built Environment and Development Studies,
University of KwaZulu-Natal, Durban, South Africa
¹Email: 211560773@stu.ukzn.ac.za; ²Email: adebayo@ukzn.ac.za

Abstract

Metropolitan areas are places of great affluence and economic importance. Increasing urbanization and pressure on metropolitan land has led to the adoption of new urbanism policies, concepts, and alternative methods towards best use of land while achieving vitality, functional city centre, aesthetics and safety. The Mixed use development concept is an approach of contemporary urbanism; it is a positive contribution to planning policy and intervention towards achieving sustainable spatial development and lifestyles. The issues that arise from adoption and implementation of this concept are poor conceptualization and implementation. Mixed-use in most cases is misrepresented by the outcomes of mixing uses camouflaged as mixed use. The difference between the two is the methodologies and implementation strategies. The paper will carry out a literature review and comparative analysis of precedent scenarios of mixed use development. It will also answer questions such as; what is the space size threshold for which this concept is required? What proportion of uses will qualify for a mixed use development? What groups of uses are considered compatible? The paper concludes by recommending the use of trans-disciplinary methodologies towards achieving a generally acceptable guide for mixed use development with consideration for infrastructure and carrying capacity towards avoiding conflicts of activities and building great cities.

Keywords: Compact development, metropolis, mixed use development, new urbanism, sustainable development.

1. INTRODUCTION

Histories of settlements and urban growth reveals that humans have over the years learnt how to manage the environment towards solving problems, meeting needs, ensuring comfort and wellbeing. This relationship started from man living on trees, caves and feeding on fruits which gradually advanced to crude technology, subsistence agriculture and progressing to the industrial revolution and consequently advanced technology in recent times. Human settlements developed in customarily mixed-uses around the chief’s palace, places of worship or central places of entertainments and business such as the village square and market places. People lived at high densities close to their farms, workplaces and transacted businesses in close proximity due to consideration for walking distances as walking was the primary means of transportation and later the assistance of animals driven carts to convey goods and services. This trend gradually changed as development advanced and population grew along. The Population grew as man grew in knowledge, produced more food, better health services and shelter. The demands of this growing population led to more discoveries of how to better provide their needs and solve more problems. This was acknowledged by Randolph (2004) that knowledge and means of controlling impacts of development on the natural environment
advance with every generation due to the growing population and economy which comes with varying consequences such as the indiscriminate and unsustainable use of land, natural resources along wastes generation, air and water pollution that exceeds nature’s assimilative capacity.

The witnessed increased proportion of the world population resident in cities and towns in the 21st century prioritized science and policy to understanding environmental impact of urban settlements and the welfare of residents, (Longley, 2005). This led to concern of world leaders and stakeholders to finding lasting solutions for sustainable development towards accommodating these growths; one of which is the mixed use development concept. Mixed-use development is prerequisite to achieving liveable places; It is development that blends land uses where appropriate allowing for greater housing variety and density, bridges house-workplace distances hence reduces car travels along proximity to secondary uses that strengthens neighbourhood character, (Duany et al., 2010). This is referred to as smart growth or optimal utilization development as the name implies; development that is comprehensive and ensures a total package of city living for every neighbourhood especially at the city core by citing land uses in close proximity to one another. Mixed land uses also provide a more diverse and sizable population and commercial base for supporting viable public transit. It enhances the vitality and perceived security of an area by increasing the number and activity of people hence more advantage of scale of economies.

The study will identify land uses in the study area using a mixed use matrix scale to determine if this concept is being integrated in the planning of the city and to further propose strategies towards achieving sustainable mixed use development

2. STATEMENT OF PROBLEMS

The Lagos metropolis has got very small land space out of which a reasonable part is water bodies, lagoons and creeks and marshy spaces. It also hosts over 90% of the metropolitan population. The population has a growth rate that suggests more population will live in the metropolis in the next decade. The high population density coupled with the ever increasing port functions and commercial activities has brought about an environment that is less as competitive as other world and port cities of which it is one. The government has over the years drawn out development plans and schemes for development which has not adequately incorporated the mixed use approach towards maximum housing provision along other uses in their right proportions which invariably influences the movement of people, traffic and order of the urban environment. It is characterised by market driven metropolitan development as described by Randolph (2004) in sprawling patterns separating people from work, commerce, culture and one another. This invariably creates unimaginable traffic congestions, transportation energy use, air pollution and loss of natural and agricultural lands to impervious roads and roof tops. The increasing economic activities have resulted to unapproved changes in property and land use over the years from residential to other uses such as commercial, institutional etc., (Aluko, 2011). The planning regulations have designated mixed use zoning districts in the model plans but the question is; do these developments or the scale of mix qualify for a mixed use development? There is need for adequate conceptualization. In most of these developments they characteristics or attributes do not qualify for mixed use development as indicated in the chaos visible in the mega city space. The differences between these two are that one is planned and goal oriented while the other is haphazard unplanned incremental development without guide or set out objectives which must be achieved. They do not conform to land use regulations, required standards and criteria for mixed use development thereby leading to failing carrying capacities, congestion and lots of lost spaces. Buildings are devoid of human scale lacking aesthetic appeal, pedestrian comfort, compatibility and other attributes of a good city. These call for a better intervention by stakeholders and governments. There is need to review land use plans, regulations and controls towards creating more functional and liveable places. Planners need to plan for successful mixed-use communities with the understanding that not all mixes of uses makes sense as certain activities still demand separation from other uses, particularly residential (Angotti and Hanhardt, 2001).
The mixing of urban uses of living, moving, working is possible and, increasingly, necessary (Rowley, 1996).

3. APPROACH & METHODOLOGY

The objective of the study is to distinguish between mix use development and random mixing of uses citing references of past developments and literature. This will further inform any community or government planning to embark on such development to research into the scopes, types, times, challenges and spatial requirements along consideration for the cost and expertise needed for mixed use and how they contribute in making dynamic and sustainable great places.

This study utilizes Secondary and primary data. The secondary data are the reviews of relevant literature sourced from existing literature, published and unpublished reports, the internet, text books, journals and previous research while the primary data is spatial survey. The Secondary data help understand the contemporary urban land use pattern highlighting the scopes, problems, challenges and benefits etc. The study also carried out a review of precedent mixed use development and urban revitalization programmes carried out by private and public sector initiatives towards sustainable development. The survey is to identify land uses in the study area using a mixed use neighbourhood characteristics matrix to determine if this concept is being integrated in the planning of the city and to further propose strategies towards achieving sustainable mixed use development.

4. URBAN PLANNING REGULATIONS, THE CONCEPTS OF ZONING AND SPRAWLING DEVELOPMENT

Angotti and Hanhardt (2001) states that the new urbanism concept of mixed-use development was brought about due to the critique of modern land-use planning and the awareness of the high impacts of sprawl. Clark (2010) considers sprawling development as the most critical land use issue in many regions; low density, leapfrog development and unlimited outward extension into undeveloped areas. Fulton et al (2001) in Clarke distinguishes sprawling development from dense as when land is being consumed at a faster rate than population growth. It has been witnessed as reported by United Nations Centre for Human Settlements (1999) that urban development and planning regulations as applied in many developing countries of Africa, Asia and Latin America have seemed to fail to provide orderly and sustainable urban development. The result is that squatter settlements and informal sectors development have continued to dominate despite officially approved urban development plans. This is as a result of several factors ranging from complicated inflexible legal and regulatory development control requirements and frameworks of urban development which in many instances have little practical relevance and therefore difficult to enforce, (United Nations Centre for Human Settlements, 1999). Planning has been blamed for the homogenous development in modern cities where uses are separated, this Rowley (1996) amongst other scholars stressed can be corrected by policy. The increased urbanization and population growth of the 21st century and its resultant consequences on the environment and the general welfare of urban residents lead to the reversed zoning development for the mixed use, (Grant, 2002). The Author narrates that early city planning sought to enhance safety and efficiency by putting buffers between activities considered incompatible especially the industries which were deemed noxious. This brought about zoning and the creation of single use districts which began in North American cities with the arrival of industrialization in the 20th century; segregating industrial from residential land uses. Zoning creates isolated automobile dependent islands, places designated exclusively for business uses are deserted after business hours; it does not promote city vibrancy as certain parts of the city go to sleep; shut down at certain times. This apart from under-utilization and restricted revenues on investment also encourages crimes and other unauthorized activities in such zones of the city. Scholars such as Jane Jacobs’ argued that a mixture of uses is vital and necessary for a healthy urban area considering the need for closely-grained diversity of uses that give each other
constant mutual support, both economically and socially. (Angotti and Hanhardt, 2001). She advocated for planning that integrates primary and secondary uses, the latter being derivatives of the former see Hoppenbrouwer and Louw (2005) where retailers customer interactions, expectations and needs are met.

**Mixed Use Development: Compatibility, Proportions and Spatial Scales**

The Mixed use development is described as an ideal, urban renaissance, a revitalization tool and conventional wisdom in spatial planning, otherwise ambiguous; promoting public transport usage, cultural vitality, and better urban design without conflict, (Rowley, 1996, Gordon and Richardson, 1997, Hoppenbrouwer and Louw, 2005, Freestone, 2008). The principle of mixed use when applied to city centres, brings about more variety and vitality into urban fabric; reduce travel need due to proximity of compatible uses thereby conserving energy and reduced pollution, ECTP’s new charter of Athens 1998 cited in (Hoppenbrouwer and Louw, 2005). This implies that when there is conflict and chaos what we have is not mixed use development which is the case in the Lagos metropolis.

Urban functions are categorized into groups of uses; housing, employment, recreation and transport etc. These functions are further categorized based on their functions and impacts as primary and secondary uses. The primary uses are growth poles capable of generating or attracting large number of people which in turn stimulate the emergence of other uses towards meeting the demands of the people. Such uses include residential and service functions which bring about the demand for uses such as shops, restaurants, bars and other small-scale facilities. Hoppenbrouwer and Louw (2005) citing Jacobs emphasised on the need for a balanced mix of these functions and uses towards creating lively and secure public places. These mixes determine the texture of the urban space, grain, density and permeability. The grain of a settlement determined the form of the environment; it is the way in which its components, people, activities, land uses, buildings and spaces, are mixed together. (Rowley, 1996). Angotti and Hanhardt (2001) states that no community is or ever was entirely mixed use or entirely single use. All cities mix and separate uses to different degrees and at different times; the balance between mixture and separation is subject to careful planning in order to get it right. As a consequence, planners must be careful to specify which uses can and should be mixed, and which should not. Master plans are considered rigid and inflexible to implement due to dynamics of urban environments and the supply of land as influenced by market forces and government policies. A complementary mix of uses is of key importance as the uses must support each other. There must also be direct, safe, and convenient connections between the uses to accomplish reduced congestion and chaos. Combining uses that attract activity at different times of day allows efficient use of streets and utilities since their use is spread out throughout the day rather than occurring primarily at peak rush hours. Similarly, complementary uses such as offices, and movie theatres, churches or restaurants can share parking spaces when peak hours do not overlap. Godschalk (2004) opines that the twenty first century land use planning is expected to deliver sustainable and liveable communities hence the future of land use planning is greatly dependent on how it resolves the conflicts and obstacles to these objectives thereby creating settlements patterns that achieve these goals. This implies that for planning to resolve the problems and conflicts it must have clear cut out objectives and focused methods towards achieving a sustainable environment. The concept of mixed use literally means varied uses existing in harmony while the mixing-use is an ongoing process of development that is not planned. Some planning authorities have adopted policies that have a size threshold. the USA urban land institutes provides that a mixed use development must have three or more significant revenue producing uses with significant physical and functional integration including uninterrupted pedestrian connections developed in conformance with a plan, everything else is downgraded as multi use projects, (urban land institute 1987). Grant (2002) argues for a less generalised definition of mixed use specifying sub-categories of urban functions with consideration for varying socio economic classes and its influences on the urban environment. This will further help towards planning for diversity and supporting infrastructure. It involves combining various scales and sub classes of uses with least impacts and best relationships at highest intensity possible that can be
sustained without generating other negative consequences. (Hoppenbrouwer and Louw, 2005) opines that the concept though not a panacea as argued by (Coupland, 1997) is as well a theory of good urban form. This then require the involvement of trans-disciplinary approaches, supporting policies and stakeholders' participation as expertise and collaboration is required for a sustainable environment. Mixed use development is a strategy towards achieving and maintaining liveable and sustainable urban environment at different levels of the urban space. Spatial development is influenced by many changing factors hence the ideal size of cities have been a point of debate for theorists over the years as it is difficult to reduce to a formula. (Banerjee and Southworth, 1990). (Hoppenbrouwer and Louw, 2005) citing Jacobs; Coupland (1997) and Grant (2002) states scale is also considered in mixed-use development; the authors advocated for mixed-use at the neighbourhood, building-complex and local scales respectively. This implies that urban functions can be mixed at various spatial levels and varying times as enabled by sequential use of space for multiple functions.

Gordon and Richardson (1997) focus on three levels as a macro, micro and spatial structure approaches, based on high average densities of these spatial hierarchies and patterns with obvious density consequences. Rowley, (1996) created a conceptual model of mixed land use and development, mainly based on the internal texture of a settlement; all intricately linked. He also distinguishes between four types of locations where mixed-use are found or may be promoted while identifying the three approaches to maintaining or promoting mixed-use settings. Hoppenbrouwer and Louw (2005) based on Rowley’s model; developed a typology for mixed land use founded on urban components of scale, texture and dimension. This typology comprised of four levels of spatial scales; the shared premise, horizontal, vertical and time dimensions. Functions can be mixed in various ways at different spatial scales and at different times, multi-level mixed uses at the single housing unit is the lowest spatial level, the scale of an inner city and the scale of a city.

Scepticisms of Mixed Use Development
The mixed developments typologies have had uneven success while some work well others have been more obviously problematic, (Freestone, 2008). According to Coupland (1997), developers are rather unwilling to proceed with mixed uses because they prefer reliable investments which yield solid returns over an extended period instead of risky investments in mixed-use development. Developers and investors desire maximum profits at minimum risk, the complexities and risks of property development have led developers and the property market generally to become increasingly specialized within the commercial sector working against mixed-use development; see Rowley (1996) for factors that work against new mixed developments and those perceived as drawbacks for existing mixed use development hence making it less attractive than single-use to investors. The high capitals involved along the considerations for land acquisition costs, design and construction, planning approvals, and differential income streams deter investors or rather makes developers reluctant to venture into this brand of development. Grant (2002) also opines that cultural and economic forces in some cases impede the development and benefits of this form of development especially where the culture promote the separation of land uses. The land policy is also very important as it defines the land use and development patterns.

Planning for Sustainable Mixed Use Development
Metropolitan areas have come under intense pressure to respond to federal mandates to link land use planning, transportation, housing and environmental quality along managing side effects of growth, sprawl, congestion, housing and lost spaces, (Waddell, 2002). The planning models used by metropolitan planning organizations were generally not designed to address these issues, creating a gap in the ability of planners to systematically assess them. Towards achieving sustainable development, Campbell (1996) advised planners to combine both their procedural and their substantive skills while citing that they have substantive knowledge of how cities, economies, and ecologies interact therefore should put forth specific, farsighted designs that promote sustainable cites. Due to the dynamism of the
urban land use, a flexible approach is necessary in order to meet the demands of change; therefore a good plan should contain procedures for adaptation to changing conditions and policies. This is because before a plan is fully implemented other conditions might come up making the initial plan unable to solve the anticipated problems or needs. Urbanism is a new model system that was developed to respond to emerging approaches; increase urban densities and create new ways of getting more people living in existing centres through urban revitalization whereby the old worn out buildings are replaced with vertical mixed use development. The emerging consensus is that development is more sustainable if it produces a mix of uses; which if adequately implemented creates attractive cities, which are viable, safe to live and work in, (Coupland, 1997).

The regeneration and or restructuring approaches are re-shaping cities in ways unforeseen, (McCarthy, 2007). Urban planning can intervene through these urban renewal approaches towards achieving sustainable cities as evident in modern city planning. Georges-Eugène Haussmann in the mid-19th Century was commissioned to plan Paris in response to the poor and deteriorating urban environment, congestion and traffic jams which impeded free flow of traffic, (Panerai et al., 2004). He carried out a massive urban renewal movement in France at the mandate of the government, slums were cleared and replaced with varied housing classes, increased densities, wider roads and mixed use development. The plan incorporated aesthetics, functionality, orderliness and other attributes of a good city; these attributes still stands out in the French urban form, not only creating a liveable but also stimulating growth, (Panerai et al., 2004). If this were possible considering the challenges involved other cities and the Lagos mega city are in vantage position of studying and adapting the approaches used while avoiding the mistakes and challenges faced.

Precedent Case Studies

The outcomes of the Brundtland Commission’s report and the UN Committee on Environment and Development Næss (2001) brought about considerably more ambitious policies in order to limit energy consumption reduce pollution and protect natural areas and arable land. Planning for a sustainable urban development must be oriented towards long-term goals and utilize knowledge about the environmental consequences of different solutions, but should not be based solely on means-ends rational. The mixed use development can be achieved in two ways as prescribed by Næss (2001); Re-use of urban areas and more effective utilization of building sites. These strategies were adopted in the United States where increasing the densities of existing urban communities and in the United Kingdom where wholly new higher densities settlements were built, see (Coupland, 1997). American mixed uses adopted intense mixing of several lands uses (Hoppenbrouwer and Louw, 2005).

Problems of land scarcity and population growth posed challenges to urban development of Hong Kong; only 21% of land is developable with the rest surrounded by mountains and water. In response to this challenge was the smart MILU urban development in Hong Kong which stipulates more than six uses i.e. residential, commercial, recreation, institutional, transport and community for mixed use, (Stephen et al., 2005). A standard mix of various uses is a precondition for sustainable urban development in Hong Kong arising from market forces rather than from a formal planning mechanism, this implies that market value is very important to land use and cannot be ignored in planning decisions. The mixed use development adopts the convenience and the sky city concept, driven by facilities and infrastructures that facilitate easy access at all times and are active Central Business District (CBD) operable round the clock.

The Amsterdam municipality as narrated by Hoppenbrouwer and Louw (2005) towards achieving the compact city concept objective of the Dutch planning policy prepared structured plans aimed to prevent uncontrolled urban sprawl and to encourage urban revitalization of the harbour in Amsterdam’s Eastern Docklands; it was decided to transform the area into a residential area, increase housing quality and quantity and employment and by intensifying the use of land and concentrating greenfield developments within existing built-up areas. Coincidently it shares the same attributes with the Lagos metropolis as it was traditionally a prosperous harbour for the trans-shipment of general cargo and bulk goods. The
scheme included approximately 8500 dwellings, approximately 100,000 square meters of commercial spaces and approximately 20,000 square meters of educational and service facilities with an urban character with high building densities of 100 dwellings per hectare of land.

The need for the paradigm shift of development beyond the traditional approach to a more holistic approach ensuring economic stability and neighbourhood integration brought about the West-cape mixed use development in South Africa, by a company called communiTgrow (Goven et al., 2012). The West-cape development which is located on the urban edge of Cape Town is a mixed use development towards contributing to the housing backlog in South Africa where the need for affordable housing and socioeconomic sustainability are simultaneously met. The project will be developed over a 20 year development period and comprise approximately 200 000 housing units and all the supporting infrastructure required of a city including transportation, educational institutions, and the full spectrum of municipal services. The project involves the public, private sector and stakeholders raising the required funds. The residents are fully involved and are allowed to invest in the project thereby making urban residents investors and co-owners of the city in which they live. The project plans for all income levels thus income will no longer be the primary determinant of location within the new city nor will ownership of private vehicles be a prerequisite for access to infrastructure and services.

5. DISCUSSION AND OBSERVATIONS

Three neighbourhoods in Victoria Island, Lagos Island and Apapa were observed for attributes of mixed use development. The first neighbourhood is exclusively for the upper class income earners. There is poor housing variety due to the high costs of rent and lands. The second neighbourhood which is the CBD is dominantly commercial use though interwoven by residential uses have very poor environment, congested roads during peak hours and failing carrying capacities of open parking lots which consumes a lot of land. The third neighbourhood is not vibrant at nights and during holidays due the dominating port functions, it has poor road networks and pedestrian linkages which are responsible for the perpetual congestion of the roads and heavy traffic at most times. The neighbourhoods are not adequately planned rather various uses sprang up by default of the traditional settlements and so not fully integrated with easy access, sidewalks with street furnishing that ensures comfort. There is poor sense of place, aesthetics and safety. There is poor integration of pedestrian facilities hence do not encourage pedestrians and the secondary uses they attract. It also is the comfort of pedestrians’ movement without fear of accidents. The observations confirmed the problems as stated.

Table 1: Neighbourhood Characteristics

<table>
<thead>
<tr>
<th>Place</th>
<th>Neighborhood 1</th>
<th>Neighborhood 2</th>
<th>Neighborhood 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Victoria Island</td>
<td>Mixed Use</td>
<td>Mixed Use</td>
<td>Mixed Use</td>
</tr>
<tr>
<td>Lagos Island</td>
<td>Residential</td>
<td>Commercial</td>
<td>Port Functions</td>
</tr>
<tr>
<td>Apapa</td>
<td>High</td>
<td>High/Medium/Low</td>
<td>High/Medium/Low</td>
</tr>
<tr>
<td>Grossly Low</td>
<td>Limited Affordable</td>
<td>Medium/Low</td>
<td>Medium/Low</td>
</tr>
<tr>
<td>Not Affordable</td>
<td>Limited Affordable</td>
<td>Not affordable</td>
<td></td>
</tr>
<tr>
<td>Density</td>
<td>Average</td>
<td>Average</td>
<td>Poor</td>
</tr>
<tr>
<td>----------------</td>
<td>---------</td>
<td>---------</td>
<td>--------</td>
</tr>
<tr>
<td>Parking Structure</td>
<td>Not Adequate</td>
<td>Not Adequate</td>
<td>Not Adequate</td>
</tr>
<tr>
<td>Road Networks</td>
<td>Adequate</td>
<td>Not Adequate</td>
<td>Inadequate</td>
</tr>
<tr>
<td>Pedestrian Linkages</td>
<td>Poor</td>
<td>Poor</td>
<td>Poor</td>
</tr>
<tr>
<td>Complementary Uses</td>
<td>Good</td>
<td>Good</td>
<td>Very Poor</td>
</tr>
<tr>
<td>Compactness</td>
<td>High</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Vibrant Nature</td>
<td>High</td>
<td>Medium</td>
<td>Low</td>
</tr>
<tr>
<td>Neighborhood Aesthetic</td>
<td>Average</td>
<td>Poor</td>
<td>Poor</td>
</tr>
<tr>
<td>Open Spaces</td>
<td>Poor</td>
<td>Poor</td>
<td>Poor</td>
</tr>
<tr>
<td>Neighborhood Safety</td>
<td>Poor</td>
<td>Poor</td>
<td>Poor</td>
</tr>
<tr>
<td>Parks And Garden</td>
<td>Poor</td>
<td>Poor</td>
<td>Poor</td>
</tr>
<tr>
<td>Distances To Work Amenities &amp; Destinations</td>
<td>Far</td>
<td>Close</td>
<td>Far</td>
</tr>
<tr>
<td>Remarks</td>
<td>Peak Hour Congestion/Chaotic</td>
<td>Congestion/Chaotic</td>
<td></td>
</tr>
</tbody>
</table>

Source: Authors field observation 2014.

6. CONCLUSION & RECOMMENDATIONS

Mixed use development is not just the combination of uses but a blend of uses whose functions are physically and functionally integrated and easily accessible especially by well-connected pedestrian networks. The Lagos environment though developed with diverse uses does not possess the attributes of the mixed use development. Three neighbourhoods were observed to come to a conclusion that the concept is yet to be adequately integrated in the plans and laws. The density and land utilization is very poor, due to high cost of rent and lands in the inner city most people travel from the suburbs to the city centre where their jobs are. This implies that there is a lot of travel to and fro the city. The mega city is also congested with non-functional slums and sprawling developments on the peripherals while commercial land uses dominate the city core. The development patterns of the selected neighbourhoods does not reflect a good mix of uses; hence the need for the planning authorities and government to come up with plans and policies for effective implementation.

Apart from urban design other approaches as prescribed by Campbell (1996) should be adopted in urban planning. Substantive approaches include regulation, or government subsidies. There is need for Trans-disciplinary approaches and research towards solving the problems of incompatibility. Planners need to
target policies toward specific sites and localities, ensure these policies are robust and responsive, and be prepared to work in partnership with developers, investors and the local community, the approach must be alive to holistic sustainability, (Campbell, 1996).

Land use plans, zoning codes and policies should be made flexible in order to allow mixed-use development where appropriate with consideration for maximum land utilization, functionality and aesthetics. The policy formulation should avoid generalization of land uses; there is the need to classify the uses towards achieving highest compatibility of uses and ensuring the objectives of the design are met. This will imply that some of the uses will be dominant more than others; some should be permitted, conditional, limited and in some cases not permitted depending on the situation on ground. Some uses not permitted in some neighbourhoods might be the preferred in others. The mixed use development should not have a blanket one pill heals all approach for all developments. It should be tailored to meet the needs of the target population, socio economic activities and even in some places geographical uniqueness. Rehabilitation and urban revitalization creates opportunities for mix use development, Lagos is considered to have a lot of slums and decaying settlements, these places can be built back using this concept. The government should encourage developers through incentives for infill and redevelopment such as waivers for approvals or reductions for development in designated areas that meet specified mixed use and design criteria. The government should develop and provide more infrastructure and facilities especially for well-connected streets and pedestrian network towards achieving the maximum access and power as ensure the full benefits of a mix of uses. Administrative policies can also solve other problems such as restricted access of unauthorized persons, limitations on commercial functions, hours of operation, specified delivery hours and noise levels.

7. REFERENCES


UNITED NATIONS CENTRE FOR HUMAN SETTLEMENTS 1999. Reassessment of Secondary Cities in Sub Saharan Africa: Traditional and Modern Institutional Arrangements. *Habitat*


[www.lcd.state.or.us/tgm](http://www.lcd.state.or.us/tgm) Accessed Thursday 26th June, 2014

Miriam Muthoni Maina\textsuperscript{1}, Olumuyiwa Adegun\textsuperscript{2}

University of Witswatersrand

\textsuperscript{1}Email: binti.m@gmail.com, \textsuperscript{2}Email: muywaadegun@yahoo.co.uk

Abstract

It is estimated that informal settlements in Kenya's capital city Nairobi host over 55\% of the population (Pamoja Trust, 2004). Despite the existence of National housing and lands polices, over the last decade, direct state-led intervention in settlements has been limited. Within this environment, conditions in informal settlements have prevailed with little improvement. The absence of state action in informal settlements has however presented an opportunity for small-scale, settlement level improvements. These have been coordinated by area residents with the support of Non-governmental institutions and, sometimes, local government approval.

One such project has been the in-situ upgrading of Kambi Moto settlement in Huruma, Nairobi. This was a community-driven, in-situ upgrading project, undertaken with the support of some NGO's and the consent of Local Government (Bowler & Desrocher, 2005). This and similar projects in Nairobi highlight the resourceful efforts of informal settlement residents to improve their conditions, though these are yet to be up scaled significantly. In the year 2004, seeking to implement the National Housing Policy (Republic of Kenya, 2005), the National Ministry of Housing launched an in-situ upgrading pilot project in Kibera, Nairobi. This project marked a revival of State-led informal settlement upgrading. The project's development, design and implementation has progressed ever since, and presents a variety of issues which would be worth investigating prior to project up scaling.

This paper seeks to discuss the two different approaches at informal settlement upgrading. On one hand, a small scale, incremental upgrade led and financed by area residents with minimal state participation and on the other; a large scale, state-driven project undertaken with minimal participation of area residents. The opportunities posed by each approach will be discussed, as will the challenges faced by each. The paper concludes that each project offers useful lessons that could be adopted by the other, and replicated to other cities in Africa.

Keywords: Slum upgrading, lessons, approaches, affordability, design, Nairobi

1. INTRODUCTION

Achieving improved living environment in urban informal settlements has been a significant focus in the post-millennial urban development drive in Africa. Different approaches have been utilized in informal settlement interventions in developing countries. Some have included evictions, demolitions, slum clearance and replacement with state-built, planned, new low or high-rise accommodation as well as implementation of idealised self-help. Projects have also been multi-sectoral, having physical improvement, community development and poverty alleviation as core objectives (Solo, 1991) as well as small-scale, having modest objectives and singular focus, often intervening in one or two areas of need and starting with a single neighbourhood (Basett et al, 2003:5). All these approaches have had varying outcomes.

This paper reviews the informal settlements intervention experience in Nairobi, Kenya focusing on two different projects. The paper is drawn from authors’ research experience and visits within Nairobi informal settlements and housing environments. It compares two different approaches at upgrading slums in Nairobi: Kenya Slum Upgrading Program (KENSUP), a government-led project currently...
being implemented in a portion of Kibera settlement in Nairobi; and Kambimoto upgrading project, a community-led, and NGO-supported in Huruma, Nairobi. The two projects represent different rationales and approaches towards informal settlement improvement. These differences - and their emerging opportunities and limitations are the focus of this paper.

The first section of this paper briefly traces the emergence of informal settlements in Nairobi, tracks state’s roles in slum intervention over the years and sets out the emergence and activities of non-state actors in informal settlement improvement. The second and third sections examine the two case studies. With a focus on affordability, access and housing design/planning issues, the paper identifies outcomes, challenges and opportunities in each case. This is followed by a comparative analysis demonstrating advantages, disadvantages, possibilities as well as outcomes when informal settlement residents come together to help themselves and when the state initiates and implements upgrading program by itself.

2. INFORMAL SETTLEMENT UPGRADING IN NAIROBI, KENYA: ACTORS AND ACTIONS

Informal settlements in Kenya emerged during the period of colonial rule due to the inadequacy of housing for the African urban residents (Obudho & Aduwo, 1989; Olima, 2001). The situation worsened following the country's independence in 1963 when, with the lifting of the pass laws, massive influx of population into the cities increased the demand for urban housing (Obudho & Aduwo, 1989; Syagga, Mitullah, & Karirah-Gitau, 2001). By the late 1980s, informal settlements had become a notable feature in Kenya’s main urban centres, especially Nairobi. Population growth and declining economic performance pushed more people into informal settlements, leading to 'densification' such that Nairobi now hosts what is reputed as the largest slum in Africa.

Over the years, government made efforts in response to the urban housing deficit. Literature shows that state policies in the pre-independence era failed to keep migrants out of urban areas, or persuade employers and municipal authorities to provide adequate housing (Obudho & Aduwo, 1989; Olima, 2001; Harris & Hay, 2007). After independence, state-implemented programs and projects aimed at curbing informal settlement growth included slum clearance, subsidized housing and support-based policies such as slum-upgrading and site/service schemes, which were implemented mainly in collaboration with bilateral and multi-lateral donor agencies (Obudho & Aduwo, 1989; Syagga, Mitullah, & Karirah-Gitau, 2001). Overall, these were insufficient to check the growth of informal settlements (Olima, 2001; Klopp, 2008).

The state’s capacity and disposition towards informal settlement intervention further declined in the 1980’s, and this could be attributed to shifting global economic paradigms and geo-political trends. There was reduced public spending on slums (Syagga, Mitullah & Karirah-Gitau, 2001: 20) and, overall, a 'laissez faire' approach, whereby the state ‘generally did not demolish any settlements, but also made no effort to institute improvement programmes’ (Olima, 2001, p. 11). Within this period, it was also observed that state resources were redirected to other development sectors, leaving the 'housing concern to the private and other sectors’ (Obudho & Aduwo, 1989:21).

From year 2000 however, there was renewed initiative by the state to improve informal settlements, and this could be seen in policy and in the formulation of intervention programs. On the policy front, there have been significant policy, legislative and institutional changes that support informal settlement intervention. These include the Housing and Lands policies formulated in 2005 and 2009 respectively (Republic of Kenya, 2005b; Republic of Kenya, 2009) Kenya’s Vision 2030 launched in 2007 (Republic of Kenya, 2007), the country’s new Constitution (Republic of Kenya, 2010) and the Kenya Slum Upgrading and Prevention Policy presently being formulated. The framework presented by these policies signifies deliberate shifts in state’s intentions regarding informal settlements. These include a transition to support-based intervention, a commitment to participatory decision making through collaboration with target groups and other stakeholders, and the implementation of in-situ upgrading. Within this framework, a number of programs have been formulated, including the Kenya Informal Settlement Improvement Programme (KISIP) and Kenya Slum Upgrading Program (KENSUP).
Apart from the state-led interventions, there have been other noteworthy intervention programmes in Kenya’s informal settlements. These begun in the late 1990s, and were mainly steered by non-state actors such as NGOs, religious organizations, community federation and non-governmental agencies in collaboration with the communities and at times with the state. An example is Mathare 4A upgrading initiative which resulted from collaboration between the state, external funding partners (Germany, in this case), religious organizations, community organizations and the private sector (Otiso, 2003; Kusienya, 2004). The most notable among these non-state actors in the recent time are the individual as well as collaborative actions of Muungano wa Wavijiji (a Kenya urban poor federation) and Pamoja Trust (an NGO) towards slum upgrading in Kenya.

Muungano wa Wanavijiji started in 1996 as a network of slums in Nairobi and Athi river in response to the rampant evictions, demolition and land grabbing from the late 1990s to early 2000s. Presently Muungano federates more than 400 informal settlements containing more than 300,000 households across Kenya with respect to daily savings and mobilisation to access crucial resources, including decent housing (Pamoja Trust, 2010). Pamoja Trust was formed in the year 2000 as a non-governmental organisation with the aim of promoting urban poor community organisation’s access to land, shelter and basic services (Weru, 2004:50; Pamoja Trust, 2012:2). Pamoja Trust is a member of the Shack/Slum Dwellers International (SDI) – the network of community-based organisations to improve Slum conditions across 33 countries in Africa, Asia and Latin America (SDI, 2013). The close collaboration between Pamoja Trust and Muungano over the years has resulted in several cases of informal settlement interventions in Nairobi. The Kambimoto upgrading outlined below is one such initiative.

3. THE KAMBI MOTO SETTLEMENT UPGRADING PROJECT

Located about 10km east of Nairobi’s CBD, Kambimoto is one of the city’s informal settlements. It is also one of the five informal settlements within Huruma in Nairobi where residents lived in tin/wooden shacks. The majority of these shacks are rented from the often absentee slum structure owners. For example, Weru (2004:51) showed that one person had 50 structures within the settlement. The average monthly household income in the settlement was put at 5000 Kenya shilling, or US$58 (Pamoja Trust, 2001). Water and sanitation were inadequate, with only one pit latrine and a six-unit toilet block for more than 1000 people living there (ibid). Residents defecated in plastic bags which are later discarded, a system known as ‘flying toilets’. Sewerage and waste collection were absent, and flooding and fire were not unusual. This must have informed the name Kambimoto, which means ‘camp of fire’.

The process of upgrading Kambimoto settlement began in May 2001 with an enumeration and mapping exercise. This initiative was spearheaded by Pamoja Trust and the local community, with the support of the City Council of Nairobi. The local authority’s support for the project paved the way for settlement improvement by allowing residents to occupy the land and upgrade their living conditions. These steps initiated the fulfilment of the residents’ dream of owning and living in decent as well as affordable houses. Kambimoto is the flagship upgrading project of the five Huruma villages. Construction work began in July 2003, by May 2005 the first set of 34 units were completed while in September 2012, 86 units were already completed and occupied. Additional 130 units are under construction out of the 250 units targeted by the Kambimoto saving group (Kambimoto resident; personal communication, 14 September 2012).

Affordability and Access to Housing

One key outcome of the 2001 enumeration – a product of community negotiations – was a negotiated equal access to housing units by area structure owners (present or absentee) as well as their tenants in the upgrading scheme. Each beneficiary is entitled to one dwelling unit in the settlement, with no compensation for landlords who owned multiple structures in the settlement. The Kambimoto dwellers sought to achieve their housing ‘dreams’ through self-help, with no support from the government.

The process began through daily household saving in a groups open to all Kambimoto residents, and the money saved provided start-up finance for the house construction. There has been no subsidy so far. Each member household contributes 10% initial payment, typically through savings. The household’s
saving group adds 10%, while the remaining 80% comes through a loan from Akiba Mashinani Trust (AMT), a pro-poor finance facility in Kenya. In 2008/2009, Community-Led Infrastructure Finance Facility (CLIFF) provided capital grant support as loan for one of the Kambimoto phases (Homeless International, 2009). A repayment period (usually between 6 to 8 years) with very low interest rate was agreed with AMT (Kambimoto resident; personal communication, 15 September 2012). The building material and construction technology targets cost reduction in order to make the houses affordable to the poor residents. Pamoja Trust’s calculation shows that cost per square metre of a Kambimoto dwelling unit is about half of what it costs for conventional housing of the same square metre (Pamoja Trust, 2008:25). Household’s sweat equity contribution which World Habitat Awards (2009) puts at 80 hours per unit also reduced cost.

Do these cost reductions result in affordable housing? The concept of affordability is ambiguous, but for this context we choose the mean median multiple to determine affordability. The mean median multiple is a widely used rule of thumb to determine relative housing affordability and has been recommended by the United Nations, World Bank and used over the years by the Demographia International Housing Affordability Survey (Cox and Pavletich, 2013:1). The median (average) house price is divided by annual household income to rate housing affordability based on the rating categories shown in the Table 1 below. Toomey (2010:237) showed that cost per dwelling unit when the Kambimoto scheme kicked off was 115,500 Kenya shillings (US$1500) while the average annual household income then was 60,000 Kenya shillings (US$780†) (Pamoja Trust, 2001). This translates to a median multiple of approximately 2.13. Based on the rating in the table below, we can say that the Kambimoto units are affordable.

<table>
<thead>
<tr>
<th>Rating</th>
<th>Median Multiple</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severely Unaffordable</td>
<td>5.1 and more</td>
</tr>
<tr>
<td>Seriously Unaffordable</td>
<td>4.1 to 5.0</td>
</tr>
<tr>
<td>Moderately Unaffordable</td>
<td>3.1 to 4.0</td>
</tr>
<tr>
<td>Affordable</td>
<td>3.0 and less</td>
</tr>
</tbody>
</table>

Source: Cox and Pavletich, 2013.

Design and Construction
One of the striking features of the Kambimoto project is the housing design and construction. Each dwelling unit in the Kambimoto scheme has a very small footprint of 4.5 X 4.5metres, which is an area little above what a typical shack occupies. Development of the units is incremental. Each household begins with a starter space consisting of only the ground floor which is a bedroom with kitchenette. This can be expanded vertically by adding up to two more floors depending on availability of funds. For example, one of the early beneficiaries who started with a ground floor room has increased his unit up to three floors. The ground floor serves as his living room, first floor as his bedroom and the second floor as the children’s bedroom. His unit’s roof space serves as laundry while other households use their space as mini-garden, sun-drying or a resting place for domestic animals/pets.

Construction of the units exemplify community involvement and cost-saving. The design evolved out of consultations between professionals (architects, planners, engineers, surveyors) and the community as facilitated by Pamoja Trust (Weru, 2004:59; Alam et al, 2005:19). The consultations were followed by life-size house-modelling exercise in the settlement to consolidate the design’s suitability (As shown in figure 1 below). The community voluntarily provides all unskilled labour (counted as sweat equity) while skilled labour is hired and are mostly form within the informal settlement community (Pamoja Trust, 2008:25). Pre-cast concrete technology (also known as ladhi in Kenya) which is affordable is used for floors, lintels, roof slabs and staircases. The community was trained to produce and assemble the pre-cast elements as well as other building components such as metal doors and window frames (Ettyang, 2011:8; Pamoja Trust, 2008:25) The building construction skills acquired by the residents are
been put to use beyond the upgrading exercise. They utilise the skills in other slums improvement and housing projects to boost household income (Toomey, 2010:237).

Although some people criticise the absence of space for rent in design of the new houses (The incremental house, 2012), the community’s earlier agreement to exclude any beneficiary from owning more than one unit or the creation of additional space for rent prevails (Kambimoto resident; personal communication, 15 September 2012). Additions to the units so far have largely followed the original design, although the quality of materials used and their aesthetics have varied. While health and safety in the new environment is much better than of the slum, it is still not optimal as cases of exposed sewerage pipes, dampened walls, only one staircase (no escape route) decimates the supposedly high indoor and outdoor environmental quality. It also raises maintenance concerns.

Figure 1a,b. Life-size house modelling of the house design in the settlement. (Used with permission from Pamoja Trust, 2001).

Figure 2a,b. Completed and uncompleted units, (Author’s Photograph, 2012).
Soweto East-Kibera Slum Upgrading Project
Kibera is one of Nairobi’s informal settlements, ‘infamous’ for its high population densities, as well as the dire physical, socio-economic and environmental conditions. Although there are controversies on the exact population in the settlement, the lowest figure which was quoted by Karanja (2010) from the 2009 Census result shows that at least 170,070 residents live in the settlement. Located some five kilometres from Nairobi’s CBD, Kibera is an ‘iconic’ slum in Kenya and the whole of Africa. The Kenyan government and other stakeholders are making efforts to improve living environment in the settlement.

Kibera’s upgrading is being implemented through the Kenya Slum Upgrading Programme (KENSUP). The project began in 2004 in a high profile event, and had strong political and financial support from the government. Implementers began with a physical and social mapping of the entire settlement to identify needs and guide the master plan for upgrading. The enumeration process was undertaken to identify the list of beneficiaries, also applying the ‘one man one entitlement’ rationale applied in Kambi Moto. Eventual project outputs would include high density redevelopment incorporating residential, commercial, recreational, institutional and infrastructural uses. KENSUP’s rollout began in Zone A of Soweto East village which lies to the east of Kibera.

Program Approach, Accessibility and Affordability
The Soweto-East project involved temporary relocation of Soweto residents to a ‘decanting site’ in Langata, some four kilometres from Soweto village. The decanting site – comprising seventeen blocks of five-storey flats with 600 units was completed and occupied in 2009 (Huchzemeyer, 2011:158). The units are presently offered for a monthly rent of 1000 Kenya shillings per room (Ksh. 3000 for a three-roomed unit). This amount includes the cost of utilities such as water and electricity. Although program implementers considered this fairly cheap, particularly considering the quality of living, Soweto-East residents and civil society representatives argued that it is high. Others objected to the fact that residents were not informed of the cost beforehand. Furthermore, the overall cost of living in the new environment was higher than it was at the settlement while there is also no provision for small-scale household economic activities as an additional source of income.

After relocating the residents to Langata, shacks in the area were cleared, and multi-storey blocks of flats have been developed. Construction in Soweto East was launched on 6 March, 2012 by the then President in what was dubbed the ‘Peoples’ Settlement Development Project’ (Daily Nation, 2012). Figure 3 below shows on-going construction work on the project as at September 2012. It is proposed that the houses would go on sale or rent to the Soweto East relocatees upon completion. Potential beneficiary residents have joined cooperatives groups where they are saving money to provide funds for purchase, and ‘once the houses are complete, they [would] be owned by the cooperative on behalf of the residents. The cooperative will be giving us money through the bank” (Kenya Ministry of
Housing Official; personal communication, 21 December 2011). An alternative to this is that beneficiaries will be allowed to occupy the units and pay rent to the state, while the houses remain government property.

An emerging concern is how area residents will afford the Kshs.3 billion. Although the sale/rent price has not yet been officially fixed, speculations show between US$5000 to US$10000 for the various units (Mwelu, 2013). Stakeholders are wary on affordability of this scheme. One of the landlords stated that “we never sat down [with the State] to explain to them whether we would be able to afford these houses. If someone is a charcoal vendor, or a small-scale trader, I don't see how you can give them a Kshs. 3 million house and expect them to pay. He won't [be able to] afford it” (Soweto-East landlord; personal communication, 27 November 2011). A government official observed that the “process has however taken long, and it is becoming evident that beneficiaries might not meet the cost of the units” (Kenya Ministry of Housing official; personal communication, 21 December 2011).

Figure 3. Construction work on the Soweto East Upgrading Project with other parts of Kibera showing at the background. Author’s Photograph, September 2012.

House Design and Construction
The Soweto East area has been designed to consist 912 housing units, 230 business stalls, a nursery school, social hall, youth center, three solid waste handling shreds, three toilet blocks and a boundary wall (Personal communication, 13 September 2012, Daily Nation, 2012). The housing units are similar to that of the Langata decanting site made of ‘conventional’ building materials and construction process for five-storey housing blocks. The housing units are in typologies of one, two and three bedroom apartments, with each room being approximately 20 square metres in area. The design makes provision for sharing and subletting (personal communication, 13 September 2012), although how this would happen without infringement on privacy and compromise of security is still unclear. Our interactions with stakeholders show that crucial decisions on the Soweto project, including the house designs (and eventual costs) were determined by representatives of the state, with residents being passive recipients of outcomes.

It is unsettling how design for this Zone A, Soweto East project failed to properly handle the pertinent issue of density. This Zone of Soweto East before the upgrading contained 6,288 people living in bungalow slum structures sitting on a land area of 6.9 hectares (UN-HABITAT, 2008). The entire 6,288 population were in more than 2,000 households (personal communication, 13 September 2012). However, the new housing development is to deliver 912 units in five-storey blocks of flat on the same area of land the slum formerly occupies. What would become of the households not catered for in the difference?
**4. COMPARATIVE VIEW OF KAMBIMOTO AND THE SOWETO EAST UPGRADING PROJECT**

The two cases discussed above exemplify different intervention approaches at improving households’ living condition and environment in urban slums. In both cases, each household in the informal settlement potentially has equal access to benefit (either own or rent) in the new housing environment. Both projects seek to bring an end to the illegal activities and heavy profiteering of private landlordism in informal settlements. It is important to note that while in Kambimoto this was agreed through a process of negotiation with area landlords, in Soweto East, this decision was imposed on residents, leading to a dispute between landlords and the government that significantly delayed project implementation.

Finance arrangements for residents to own or rent their unit in the schemes are also open to all. Apart from the similarity in terms of equality of access, the new houses resulting from the upgrading scheme are developed on the same portion of land occupied by the settlement. This literally is in-situ upgrading, but in the context of contemporary discourse, particularly as promoted de jure by UN-HABITAT, would not pass off as in-situ slum upgrading. What we are pointing out here is that, although the residents in both cases would remain or should remain in the same area, the social fabric in the informal settlement communities would not remain the same in the redeveloped and differently configured housing environment.

The issue of affordability remains critical for success (or failure) of upgrading projects. Although beneficiaries in each project have equal access to houses, we see that the ability to afford their future homes is notably different. Houses in the Kambimoto scheme are generally affordable to the residents. As at the time of this research, the Soweto East development is still on course, but from all indications, outputs will not be affordable for the residents. The Soweto-East project resembles and might turn out like the contentious Kibera High Rise project of the early 1990s and the Pumwani-Majengo Slum redevelopment Phase II, both by the National Housing Corporation (Huchzermeier, 2008:21). Apart from the negative influence of corruption, houses in both cases were taken up by the middle-class because they were unaffordable to the intended beneficiaries.

Although these upgrading schemes lead to significant improvement in environmental conditions in both settlements, none of the two consciously incorporates environmental sustainability in the light of global climate change and the need to conserve earth’s depleting resources. With respect to energy, water, green infrastructure, waste, both schemes do not clearly show principles of environmental sustainability, although such opportunities exists. Our visit to both sites and interaction with relevant stakeholders do not show any conscious plan at present to make these new areas environmentally sustainable. The compact and dense design of Kambimoto is a more sustainable form. Following Giok Long’s (2005) explanation, less amount of energy would be needed in production (for example construction, laying of infrastructure) and sustenance (transport costs, energy costs for housing operation). Since projects like these often lead to increase in such area’s carbon footprint, exploring opportunities for environmental sustainability is worthwhile, whether community-led or state-led.

Apart from the above, some other differences have ripple effect on the projects. Design of the Soweto East housing development as we learnt, makes provision for renting as a source of additional income to the benefiting household while the Kambimoto schemes does not. The Kambimoto schemes by its design and response to density accommodates all the households in the same portion of land they formerly occupy, but the Soweto project has failed to achieve this. Kambimoto explored alternative building materials and technology as well as an incremental construction which resulted in cost reduction and enhanced affordability. Soweto East on the other hand does not show any material use or construction approach that reduces unit cost to what a poor Kibera resident can afford, neither is there promise of subsidy. We can therefore say that the Soweto East case was that of middle-class homes designed for low-income earners while in Kambimoto, low-income homes were designed for the poor. This difference can be attributed to the low levels of meaningful participation and community involvement in Soweto-East and the deep engagement undertaken in Kambimoto.
5. CONCLUSION

Although Kenya has a relatively long history of informal settlement improvement efforts the overall result have been limited. Informal settlements still remain a reality in most urban areas in the country. The cases discussed above present two models of informal settlement upgrading in Nairobi, though it is important to note that these are not the only intervention projects in the City. This paper highlights the opportunities, benefits and shortcomings apparent in each model – when informal settlement residents, with NGO-assistance, come together to improve their living conditions; and when the government initiates and solely implements the intervention process.

While the houses in Kambimoto are affordable, better designed for the poor, and enhance socio-economic empowerment, those in Soweto East are arguably not. The Soweto-East housing design is not properly suited to the poor residents and from all indications they would not be able to afford it. As both schemes seek to improve environmental conditions in urban informal settlements; there were no deliberate efforts towards environmental sustainability. It is necessary to incorporate principles of environmental sustainability in the ‘upgrading’ process and product.

We submit that the community-led, NGO assisted scheme in these cases is a better approach, and ought to be replicated in other projects, including KENSUP in Kibera. State’s resources as expended in the Soweto east project can be channelled to subsidize construction cost in the implementation of the ‘Kambimoto model’ in that area of Kibera. We are not presenting the ‘Kambimoto model’ as a one-size-fits-all solution for Nairobi informal settlements. We however believe that with respect to completion time, community involvement and empowerment, cost reduction and affordability, socio-economic sustainability and other measures of project performance, the community-led, NGO-assisted model presents more opportunity.

6. REFERENCES


The Changing Form and Function of the Inner City of Central Lagos: Implication for Sustainable Great City

Dr. Pauline Adebayo¹, Oyebamiji Okesoto

¹ Senior Lecturer
Disciplines of Architecture, Planning and Housing
University of KwaZulu-Natal, Durban.
¹ Email: adebayop@ukzn.ac.za

Abstract

Lagos Central is the economic hub of the federation of Nigeria. Its historical and locational advantageous position makes it a center of attraction to investors far and near as a great city in the most populated Sub-Saharan region of Africa. The paper examines its changing form and roles over the years and its implication on sustainable greatness. The paper adopts largely the desktop approach, which entails review of literature. It was revealed that in the last century, the city has continuously witnessed tremendous changes in form - in terms of size, composition and appearance. The city has also exhibited a great change in its function as a traditional housing zone for the poor. The paper reveals that the weak land use and developments control mechanisms, historical and political factors could have contributed immensely to this. The implication on the sustainable greatness of the city was equally examined. Effective land use and developments control mechanisms is one of the several recommendations of the paper.

Keywords: Form, City, Inner city, Great city and Central Lagos

1. INTRODUCTION

UN-Habitat, 2006 projects that by 2030, over 60% of the world’s population will live in the city, it therefore suggests that our cities in readiness to accommodate this huge population should be made smart and sustainable even in their expansion bids. Our cities should become superior and delighted places to live and work in. In most cases the first point of call by any city immigrant is the inner city or the Central Business District (CBD). The CBD for the reason of economic opportunities it may offer and the inner city for its proximity advantage to the CBD. Inner cities by classical theorists like Burgess (1925), Hoyt (1939) and Harris and Ullman (1951) are areas directly surrounding the CBD, areas built up adjacent to or near the CBD. They are centers which emerged during the industrial revolution because of the existence of the old heavy and manufacturing industries at the centre which requires industrial investors to provide low cost housing like tenements housing for the poor workers who in most cases are poorly paid and work in these factories but need to live closer to work, since they cannot afford cost for daily commuting from locations far away from the CBD. It is therefore not surprising that the classical theorists came up with the urban land use model which depicts the inner city as the land use zone which offers dormitory function to the poor workforce. Referred with several names, Down, 1997 describes it as inner ring suburbs, areas legally separating communities immediately adjacent to and contiguous with the central city of metropolitan area. The Ohio consortium 2004, describes it as the first suburbs. Lucy and Philips, 2000 describe it as middle-aged neighborhoods.
Central Lagos is the oldest part of the mega city called Lagos and presently houses the largest economic and one of the most prosperous CBD in the sub-Saharan part of Africa. Surrounding this area is its inner city which from the time immemorial provides housing function for the local poor. For instance, Aderibigbe, 1975 submits that inner city of Lagos as it was formerly called is occupied by the poor fishermen. However in the recent time, this part of the city is gradually loosing this function. The poor are being shortchanged and rapidly displaced from the inner city. Suggesting that the inner city of the Lagos Central which hitherto houses the poor is failing in this function, the poor are now being replaced by the rich. Apart from the quick succession of the poor by the rich, housing function is also at quick succession by other land use activities mostly the commercial land use, due to scarcity of land at the CBD resulting into high land values and rentals and the inability of the increasing demand for offices coupled with the inability of physical planning agencies to protect the land use attributes of the inner city. Planning rather being proactive has become reactionary. The inner city is rapidly losing its function and this portends danger for the city of Lagos as a great city of the future. This will also impact greatly on the enduring requirements of the city as a great city in future.

In similar vein, the inner city form is becoming amorphous, lacking appropriate direction for growth and development. Buildings and land utilization are generally at random and not necessarily guided by any development guide plan, revitalization strategy of government over the years have not helped matter as most of such programs ended up replacing the poor with the rich in the inner city of Central Lagos. Location advantage of the inner city, of being strategically situated in economically viable areas near major big centers, transportation and communication nodes and the short distances to place of work, social networks and dense infrastructure makes it a desired place for all to live.

The paper therefore examines the changing form and function of the inner city of Central Lagos and its implication on sustainable great city with the view of enhancing the status of the city of Lagos as an efficient and functional city.

2. RELATED RESEARCH

The changing forms and function of the inner city is not an extensively new literary terrain. For instance Coulibaly, 2012 in his work “rethinking the form and functions of cities in post Soviet countries” reveals that the distingration of the former USSR which hitherto has been synonymous with central planning is largely responsible for the changing form and function of its major cities. To this author, political evolution impacts significantly on changing role and structure of cities. Loss of jobs in the CBD by the workforce resulting from the distingration according to Coulibaly, 2012 saw the greater proportion of the Eurasian cities which ordinarily lack suburbs returning back to the rural areas, hence the inner cities became deserted, scanty and less dense than they were in pre-disintegration era.

Badcok and Cloher, 1981 observe that post-war residential development in the inner city of Australia cities has been significantly different in structure and function from what it was pre war time. This change to these authors could be attributed to the peaking of post-war housing demand resulting from the immigration program, and the arrival of the “baby boom” cohort that raised household formation rate. Badcok and Cloher, 1981 therefore place the cause of the changing function and structure of the inner city of Adelaide, Sydney and Melbourne to demography factor. In addition to this factor is the growing numbers of dual-income households as female adult members of the family participate actively in the workforce population and this increases housing demand of the population post war era, thereby creating expansion of the inner city beyond what it was pre-war time. While the growing white collar employment which is now centralized in the core of the cities motivated more resident population into the city, because several of them desire to live closer to where their jobs are situated.
Lee and Leigh, 2007 attribute the changing form of the inner city to a wide range of factors, some of which include population movement (migration), socio-economic factor, housing, physical infrastructure conditions and governmental policies which are capable of altering and shaping regional growth patterns. The consensus opinion of several of these authors is that the inner city like every other human settlement has its life cycle – birth, growth, decay and rebirth the stage at which every inner city is, varies from one city to another and factor enhancing such changes also varies from one city to another. This study will equally increase the scope of this research, in addition espouses the implication of these changes on sustainable great city with specific reference to the inner city of Central Lagos.

3. THE STUDY AREA

The study area is the inner city of Central Lagos comprises of the immediate neighborhoods surrounding the CBD. It is the epicenters of Metropolitan Lagos covering the present day Lagos Island. The CBD extends from Idumota – Isale Eko on the Northern part, Obalende and Onikan on the Southern axis, Epetedo and Sangrouse on the Eastern front and Marina Olowongbowo Apongbon on the western side.

Lagos Central is one of the several cities that make up Lagos metropolis. It is popularly called Isale – Eko (Down Lagos). It is one of the oldest settlements of Lagos, in fact the 1914 amalgamation of the southern and northern protectorate took place at Tinubu one of the neighborhoods in Central Lagos, comprises of Lagos Island, Ikoyi and Victoria Islands (see fig 1.1) occupying a total land area of 8.7km². Lagos Island comprises the busiest and the most buoyant Central Business District (CBD) in Lagos. The, district is characterized, by high rise buildings, which contains the metropolis’s largest wholesale market - places like Idumota, and Balogun markets. It also contains some institutional, historical and religious buildings like the National Museum of Nigeria, the Central mosque and the Oba’s palace. Surrounding the CBD around Lagos Island are residential settlements like Obalende, Ikoyi and Victoria Island. These settlements constitute the inner city of Lagos Central. Obalende and Ikoyi are twin settlements and differentiated by their housing characteristics, situated to the east of Lagos Island (the CBD). Available houses in Ikoyi are of high quality and predominantly occupied by the middle and the upper class income groups in the metropolis. Though, originally occupied by the low and middle income groups because of its proximity to the CBD, this group has since been displaced. Obalende, on the other hand is characterized by poor housing structure and type, but expensive and unaffordable for the low income group. Residential land use in these two settlements are rapidly being taken over by commercial land use, hence there is acute shortage of housing. Victoria Island, which constitutes the integral part of central Lagos, is situated to the south of the CBD. It is also a residential settlement with eyebrow housing occupied by the upper income group of the metropolis. There is also rapid succession of residential land use in this part of central Lagos by commercial land use.
4. METHODOLOGY

The research adopts desktop approach comprises of both qualitative and quantitative data. The method entails the review of published and unpublished historical data relating to the study area. Trend of changes are traced and analyzed to explain the structural and functional changes which occurred over time in the inner city of Central Lagos. Government documents such as land use plans and zoning regulations of the area was observed and compared with existing situation. Physical observation with the aid of building survey sheets also complements the desktop approach. Results obtained are documented and in some cases descriptively analyzed and supported with pictures and maps where necessary.

5. CHANGES IN FORM AND FUNCTION

The inner city of central Lagos over the years has undergone series of changes in form and function. The study appraises these changes under three headings namely, pre colonial, colonial and post colonial eras. Changes in form consist of structural formation which includes spatial form and expansion, demographic changes and land use changes. City form describes its morphology, shape i.e. the way city can be observed, understood and read in terms of their spatial pattern. The form of a city describes the shape, configuration, structure, pattern, organization and the city systems of relations. The use of form in this study relating to the inner city of Lagos Central connotes the spatial pattern of elements constituting the inner city in terms of its networks, buildings, and spaces defined mainly through its geometry.

PRE-COLONIAL ERA

The pre-colonial era describes the period before 1861 when the British government declared its authority over the colony of Lagos. The city form during the period was generally undefined not until the period after 1861. During this period, the present day area called Central Lagos occupied not more than one third of the overall surface of the Island (Mitchel, 1988) comprises of a thick belt of mangrove.
forest which encircled its shores, which then acted as a barrier against rip tide silt as well as human penetration. The interior was swampy, comprises of creeks and in few cases dry lands (see fig 1.1). The highest point of the Island was its extreme North West, where the first founding father of the settlement erected their compound around the 18th century. The founding fathers of the settlement according to Bigon, 2007 escaped from war and political instability that characterized the interior part of the other Yoruba kingdoms of the present day South Western Nigeria. The highest point of the then settlement was the most prosperous site of the settlement, inhabited by fishermen and farmers. Selection of the site closely related to the coast was largely influenced by their occupation as fishermen. Structurally, the entire land use was built around this highest point, which Bigon 2007 claimed was later occupied by the Obas (king’s) palace and neighbored by several palaces of smaller chiefs called Baales which forms the heart of the newly but rapidly growing settlement.

**Figure 1.1: Lagos Central Pre Colonial era**

Source: Mabogunje, 1962 PP.306

Surrounding the centre were other small palaces of local and lesser Chiefs with each having its own groups. These two closely related districts i.e. the Oba’s palace and the Chief’s palaces and other built up areas surrounding them were collectively known then as ‘Isale Eko’ quarter. Three distinct land uses could be inferred during this period and they include - public land use primarily comprised of the king’s and chiefs palaces which exists in the heart of the settlement, not necessarily the central point. This could be interpreted as the CBD of the old settlement going by structural description of Burgess concentric land use model; another notable public land use exists at the coastal strip of settlement which was relatively free of native habitation but used by the indigenes of the settlement often called ‘Isale Ekosians’ as burial ground for outcasts.
Other major land use is the residential use comprises mainly of rectangular shaped houses built with Lagoon mud, palm leaves, poles, bamboo, decayed vegetables and clay, though there is no evidence of the survival of these first dwelling houses in today’s Central Lagos or any part of Lagos. Rooms were generally built into open rectangular courtyards. Markets and other economic land use exist closely to the Oba’s king’s palace. Slave trade existed in the area as the legitimate occupation of the inhabitants, thereby gave little proviso of land for agricultural/cultivation purposes. Hence, little or no land was devoted to agricultural use. However, the prosperity of the settlement during this period allowed for massive development of the Isale Eko quarters and expansion to the outer rings to the present day Idumota, Faji market and Balogun square was noticed.

The land use arrangement, though not absolutely circular due to the configuration of the land but bears semblance of the Burgess concentric land use theory in term of functional arrangement. During this period, the city form is shaped by the needs of the settlement, suggesting that the city forms emerged organically. The forces shaping the form of the inner city are spontaneous, diverse and interactive. During this period, the inner city was fused into the CBD. Distinctions between the two in term of function and spatial order hardly exist. During this period, Lagos central which constitutes the whole of Lagos was far from being unambiguously expressive in form. The composition exists on a total land area of 1.7km² (which is just one third of the 5km Island during the colonial era (Mitchel, 1988).Primary function of the spatial configuration then was to provide dormitory services for the then population of the settlement which was slightly over 30,000 people (see table 1.1).

**Table 1.1 Lagos Central Population Pre Colonial and Colonial periods**

<table>
<thead>
<tr>
<th>Year</th>
<th>Population size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1859</td>
<td>30,000</td>
</tr>
<tr>
<td>1866</td>
<td>25,083</td>
</tr>
<tr>
<td>1871</td>
<td>25,518</td>
</tr>
<tr>
<td>1881</td>
<td>37,452</td>
</tr>
<tr>
<td>1891</td>
<td>32,508</td>
</tr>
<tr>
<td>1901</td>
<td>41,487</td>
</tr>
<tr>
<td>1911</td>
<td>73,766</td>
</tr>
</tbody>
</table>

**Source:** Olukoju, 1993

Public and commercial functions were scanty and unnoticeable except for the king’s palace and the local market. There is no other defined public function. The occupational structure of the population during this period reveals that majority of the people relied largely on slave trading. Bigon, 2007 reports that on the eve of the British ten year consular period, Lagos was still the most important slave port in West Africa. Very few engaged in agricultural activities, mostly fishing and planting of vegetables (Aderibigbe, 1975). The population component is mostly indigenous and few number of immigrants all of whom are of Yoruba origin.
COLONIAL PERIOD

The Britain Bombardment of Lagos in 1851, its annexation in 1861 in a period tagged by Birgo, 2011 as the consular period. The annexation of the colony in 1861 increased the economic and political roles of the Island and brought about a lot of changes in the land use arrangement and morphological characteristics of Lagos Island. Auclair, 1999 describes the Lagos Central as essentially a product of Europeans. This period wedge more influence on the city form and expansion. The abolishment of the slave trade and the establishment of Pax Britannica succeeded in attracting to Lagos, new groups of immigrants, repatriates i.e. the freed slaves from Brazil and Sierra Leone of Yoruba descent and the expatriate group consisted of several hundreds of Europeans. Though, the greater part of the Isale – Eko had been considerably populated by few Europeans traders who arrive before the consular period. But the annexation of the Island as a colony altered the form and function of the city. Firstly was the lateral expansion of the city evidenced in the creation of additional three distinct sub communities from the Isale – Eko quarter which existed before 1861. The additional distinct sub communities include:

1. The European residential and commercial quarters: This sub-community was situated along the Island Southern shore, directly opposite Isale Eko (the oldest and the most populated sub-community) (see figure 2.1). The creation of this quarter marks the beginning of residential segregations in central Lagos along social and economic lines. This quarter existing along the coastal strip (area that formerly serves as burial sites for outcast member of the community) is now predominantly occupied by the Europeans and absolutely free from native habitation. The Europeans who by the end of the 19th century were not more than 250 occupied the European residential quarter, yet their quarters was of great splendor.

2. Marina Quarter: This quarter exists along the thin strip of the southern shore, like the European residential quarter in (1) above. Marina quarter was a desirable and prestigious residential and administrative quarter occupied strictly by the Europeans. The Marina quarter was created in 1861 by the then consular general – William McCoskry and was later extended southward by Governor Glover in 1863 to include the present day Broad Street which was paved in 1863. The expansion of the Marina quarter and the pavement of Broad Street were achieved by seizure of land, relocation and compensation of the original land owners under certain conditions. This for the first time in the history of Central Lagos brought about changes in traditional values of land ownership and dramatic rise in land value in the areas around the paved streets, the area which eventually became European residence neighborhood. Intuitively, the objective of the creation of Marina quarters was not to promote housing segregation but to prevent the spread of fire which characterized the old sub community of Isale – Eko opposite the European settlements. It can therefore be inferred that the 60feet wide Broad street, parallel to Marina constituted a deliberate step to protect the European premises against the danger of fire from the North i.e. Isale – Eko . This overt intention altered the demographic structure of the city as greater proportion of the indigenes, mostly the poor were excluded from living on the Island, a phenomenon which permanently altered the population structure of the inner city till today. The expansion of Marina quarters, was not only sustained by the pavement of Broad Street, it was equally reinforced by the promulgation of the 1865 ordinance on roofing materials cited as Lagos Acts: An ordinance for a better preservation of the Town of Lagos from fire, enacted on 7th January. This ordinance also promoted and contributed immensely to the history of change and form in the inner city of Lagos Central. The ordinance demanded for roofing with materials of un-inflammable nature, especially in the areas situated between Lagos lagoon and Broad Street. The law required buildings in the specified area to be roofed or covered with no other material other than slate, metal, bricks, files, asphalt, concrete or other un-inflammable substance, covertly prompted exclusionary inner city while majority of the residents of the specified area who were Europeans could afford the cost of the roofing specifications prescribed by the ordinance, the greater proportion of the blacks who are underprivileged could not afford it. Their houses were bought over by the few who are rich, while they relocated to the outer ring where the ordinance permitted to be roofed or covered by Calabar Bamboo mats, which is less expensive, affordable and proved to be less inflammable than
the country thatch roofing material. The rich (whites and blacks, the whites mostly) took over the land of the poor in the inner city, while the latter were indirectly forced to relocate outside the inner city. The discovery by Ronal Roos in 1897, that the Anopheles mosquito was the carrier of malaria that killed several Europeans on their arrival along the coast on the Island prompted MacGregor (1899 – 1904) to embark on the gradual elimination of the malaria parasite through extensive swamp reclamation and further segregation of the European residence from that of the blacks who are assumed to be the medium through which plasmodium parasites are transferred from one person to another. This led to the dredging of the 25 feet Macgregor canal. This was supported by the colonial office and further created lateral expansion of the city.

3. **Olowogbowo or Saro Quarters**: The third quarter provides accommodation for the freed slaves from Sierra Leone who probably are not Isale Ekosians (Lagosians) but of Yoruba descent. Some came as immigrants from Sierra Leone and they were collectively referred to as “Saros”. The quarter exists to the South Western part of the Isale Eko (the oldest quarter). The quarter is also called among the indigenes (the Isale Ekosian) as “Olowogbowo” and severally shortened to Ologbo translated to mean – “the owner has taken his things back?”. The quarter is segregated not on economic basis but on social – cultural basis. This is another evidence of altered demographic structure.

4. **The Brazilian Quarter**: This is the fourth sub distinct community. It is equally a residential quarter which exists between Isale Eko and Marina. This quarter was created as a result of the consequence of relative peace established by the colonial masters among the various Yoruba fractions in the hinterland, outside Lagos Island. The quarter is meant for repatriates from Brazil and Cuba who tended to identify themselves with the Isale Ekosians. It is the site formerly occupied by the Portuguese traders. As at 1881, the community provides houses for over three hundred households/families. The indigenes called the quarter’Popo Aguda’ or ‘Oke popo’

**Figure 2.1: The various quarters that constitute Central Lagos**

![Map of Central Lagos showing various quarters](source)

**Source:** Adapted from Bigon, 2009 pp.439
Interestingly, apart from Isale Eko which now constitutes the CBD of Lagos Central all others quarters constitute the inner city of central Lagos. Among the five distinct quarters, Marina and the European residential and commercial quarters are the two quarters dominated by the Europeans and few rich blacks mostly government officials. The two quarters exist to the south of the coast and directly opposite Isale Eko (the oldest quarter) – concentration of infrastructure and amenities like mercantile businesses, governmental offices, clubs and other public goods around Marina was followed up by a drastic rise in the value of land around the two areas and this exclusively reserved the area for the rich and excludes the poor who originally were found there because of the proximity of such areas to their economic activities. Though these quarters were never officially segregated from the rest, mostly Isale Eko, but the contrasts that exist between them suggest this. Premium importance and priority were granted the two quarters. In term of street layout, organization of public and private spaces, and building materials, Isale Eko the largest, oldest and most congested quarter exhibited significant contrast to the European zones of Marina as European quarters. The Saro quarter occupied by the repatriated slaves from Cuba and Brazil were of medium income because they are professionals, artisans who were trained in Europe and coast of West Africa. They could therefore afford permanent and imported building materials of European styles, thus exhibited middle class residential characteristics. Whilst the oldest sub-community of Isale Eko was majorly occupied by the Yorubas, their houses were largely made up of temporary materials such as clay, lagoon mud, palm leaves and bamboo poles. On the other end of the road were Marina and the European quarters. Most of the colonial governors like Glover (1864 – 1872), Pope Hennessy (1872), Moloney (1866 – 1890), Egerton (1904 – 1911) and Lord Lugard (1912 – 1918) expended their time and money in building these European ends of Lagos Island, simply because they were occupied by the Europeans. Isale Eko, as it was then called portrayed a poor environmental quality and reflects the low income of its occupants. Surprisingly, it is this same locality that grew to become the CBD of Lagos Central. As such, the poor fisherman and farmers who hitherto occupied Isale Eko have been totally displaced by commercial and public land use successions.

Within this period before 1920, land use pattern of Lagos Island still occurs in different zones, the inner most part is the old Isale Eko which still exists side by side with Marina, though separated by the paved Broad street, this punctuated the ring like structure that existed in pre-colonial era. The new land use form takes the Sector land use model form of Homer Hoyt. The ring was further punctuated by the establishment of rail road running north from Lagos towards Ibadan and Abeokuta. Other land use activities began to emerge, notably public land use comprises of Docks and Piers, Prison Yard, government house, hospitals and military barracks all of which are confined to the European commercial and residential districts of the island in accordance with the requirements of trade and profit as espoused by the urban land use models and the rent bid theory. These uses began to compete for land space alongside residential use.

The unification of the Northern and Southern protectorates and Lagos as the capital promoted further concentration of economic, administrative and political activities in the Island. This motivated population explosion and necessitated spatial expansion of the Island, the paved Broad Street corridor suddenly became headquarters of leading expatriates, mercantile firms and many of the wholesale firms made the corridor their headquarters. At this point, commercial use competed vigorously for space along this corridor, competing alongside commercial use for space on the corridor are industrial uses made up of factories and other light and service industries. The attempt of the colonial master on slum clearance brought about the reclamation of swamp areas of the Island and between 1900 – 1930, new settlements of Ikoyi and Victoria Island emerged. These two settlements were seen as offshoots of Europeans quarters and Marina and built primarily to be occupied by government officials who were predominantly whites and few rich blacks. All these settlements still constitute part of the inner city of central Lagos till today.
Land use pattern and morphology exhibited under this period between the European quarters of Marina, Ikoyi and Victoria Island and the indigenous residential quarters of Isale Eko showed a significant variation. While the former exhibited good sense of regulation, spacious, planned and well maintained, the latter reflected the Yoruba free style approach to urban space – closed family compounds, narrow access and built along natural pathways. Colonial influence on land use pattern and formation is highly significant. European exploitation during this period brought about massive industrial development in Lagos. This promoted massive migration which culminated in population explosion, land use and spatial expansion. Another factor that reshaped the form of the city was the establishment of the railroad running North from Lagos towards Ibadan and Abeokuta (1895 – 1895). This railroad enhanced the transportation of large qualities of store needed for the construction of wharves of Lagos port, and the introduction of several canals. This totally changes the occupational structure of the population and attracted more population from the hinterland especially those of Yoruba nation. In view of the above, factors responsible for the changing form and function of the inner city include:

1. The fusion of the colony of Lagos in 1906 and the protectorate of southern Nigeria, with Lagos as its capital also help in re-modification of the city form during this period.
2. The 1900 proclamation redefined the size of central Lagos to include: Lagos Island, its nearby Iddo Island (connected by Carter Bridge) and the immediate hinterland of Ebute Metta.
3. During this period demographic characteristics changed in term of occupation, the abolishment of the slave trade by the consular regime compelled the residents to limit...
themselves to other legitimate trading activities, such as cloth trading, food and palm oil trading. Population composition no longer remains indigenous and homogeneous, but rather becomes diverse and heterogeneous comprises of several thousands of the repatriated slaves from Brazil, and Sierra Leone, of Yoruba descent and the expatriate group consisted of several hundreds of Europeans.

4. The establishment of Marina in 1861 by the colonial government marks the beginning of the dramatic rise in land value and the invasion of residential land by more competitive land use activities – commercial land use and the gradual displacement of the poor indigenous population. This resulted from the building of European residences, mercantile businesses, governmental offices, public services and clubs.

5. Urban legibility was achieved through street naming. A total of 83 streets were named, compiled by Otunba Payne in 1893 among which 65 are named after the Obas, 13 middle group names of other important figures in the city and 5 belonging to the British rulers.

Post Colonial Era: 1956 - Date

The period between 1956 till date describes the post colonial period. It is the period when the country was granted political independence by the Colonial Masters. Land use pattern which exists within this period is a continuation of the colonial policy that emphasizes low density housing for the elites in locations that are mostly accessible to major employment centers. The land use morphological expression of the city within this period is still not totally different from what it was in the Colonial period. Existing land use pattern is a clear reflection of what it was in the colonial era. The morphology of the city is a clear reflection of what it was during the colonial era. The indigenous elites still occupied the core i.e. Isale Eko quarter, while the educated elites, professional and government officials move to occupy the more decent, spacious European residential quarters of Marina, Ikoyi and Victoria Island. The urban poor migrants, who migrated from the hinterland as a result of the new status of Lagos city as the new capital city of Nigeria settle in the non-serviced periphery of the city and near objectionable land such as swampy area and areas designated as industrial sites, simply because of lack of fund. They could not make their way into the inner city of the emerging new Lagos. The granting of political independence to the nation state of Nigeria in 1960 significantly impacts the city land use morphology of central Lagos. The preparation of Nigeria for independence in the 1950s led to the designation of Lagos as the capital city of Nigeria and in 1951, an agency which was created in 1928 – Lagos Executive Development Board was tasked with the responsibility of redesigning the physical morphology of the city through slum clearance. The aim of the scheme was to prepare the city for its capital status. The agency which was created as far back as 1928 was tasked in 1951 with the responsibility of clearing and redevelopment of a 70 acre (0.3 km²) triangular block of land which comprises the present day CBD (Peil, 1991). This allowed for the evacuation and relocation of the inhabitants of the Oluwole area of the CBD. This area was previously occupied by the poor and outcasts in the society. At the instance of the rehabilitation scheme, occupants of this area were moved further into the suburb to places like Suru-Lere and Ebute Meta which are extremely outside the ring of the CBD and the CBD’s inner city.

The European exploitation of the city in the 1940s equally brought about massive migration and by 1960, the rapid industrial development of the period culminated in population explosion which enhanced land use demand and huge spatial expansion. This was sustained by the continuous existence of the city as the political and economic capital of the state of Nigeria. The massive population movement in search of job and government appointments and contract brought about unprecedented need for land, which saw the expansion of the city beyond what it was in the colonial era. New residential areas sprung up without adequate planning and physical development control. This equally led to the emergence of slums in and around the city. As the city expands spatially, the CBD becomes farther away from the majority of the population. Summarily put, health consideration, changes in economic circumstances and administrative re-organization play major role in the land use formation and segregation in central Lagos. Emerging morphology of the city within the period can be
substantially labeled as, the core area which comprises the CBD and the inner city, the hinterland, comprises of the residential areas created post independence era. Some planned, for example Suru-lere and Ebute – Metta and several others unplanned. The Sub-Urban area, that emerged of late as a result of massive spatial expression of the city and the planned settlement area which sprang up, when it became expedient for government to separate Lagos central as the administrative capital of Nigeria and Ikeja the administrative capital of Lagos state, such areas include Ikeja, Ilupeju, Papa Ajao, GRAs etc. The following factors could be attributed to the observable changes during this period:

1. The slum clearance scheme of 1951 which prepared downtown Lagos as the future capital of Nigeria. This affected the demographic and socio-cultural architecture of the city. Families were relocated from the residential quarters around the western end, stretching from Ereko to Marina to give way for the CBD’s redevelopment and expansion.
3. Weak development control mechanism. Planning activities relating to land use development, and building use and development was generally described as weak. The weakness of the mechanism allows land developers to develop their lands indiscriminately without recourse to any laid down rules and regulation. Uses are changed at economic dictates and the economic desire of land owners. This allows for quick succession of residential land use in the inner city by more competitive uses like commercial.
4. Political and colonial influence is another factor which shapes the form and function of the inner city of Lagos. Its location advantageous position as the first point for the European Colonial master who pluralized and segregated the inner city on socio-economic basis altered the demographic structure of the city.

6. SUMMARY OF FINDINGS: WHAT HAS REALLY CHANGED?

Within the three periods – pre- colonial, colonial and post colonial eras, the inner city form and function has drastically experience great changes and the changes are still ongoing. Some of these changes are as outlined below:

1. Demographic Change: Reviewed literatures confirm that the city has expressed significant change in its demographic size and composition. For instance, Olukoju, 1993 observes that not until 1950, 64.4 percent of the today’s Lagos population lived in Lagos Island, as at today only 2.9 percent live on the Island – a great declining rate of residents’ population, though over 3 million people make daily trip to the Island for economic reasons. The inner city over the years has shown a great decline in population size and growth rate (see table 3.1).

Table 3.1: Population shift from the inner city of Central Lagos to its suburbs

<table>
<thead>
<tr>
<th>Local Govt. Area</th>
<th>Status</th>
<th>1991 population</th>
<th>1991 Growth Rate</th>
<th>2006 Population</th>
<th>2006 Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alimosho</td>
<td>Suburb</td>
<td>119,267</td>
<td>8.04</td>
<td>241,093</td>
<td>4.80</td>
</tr>
<tr>
<td></td>
<td>&quot;</td>
<td>101,464</td>
<td>8.04</td>
<td>181,409</td>
<td>3.95</td>
</tr>
<tr>
<td>Badagry</td>
<td>&quot;</td>
<td>151,589</td>
<td>13.28</td>
<td>287,785</td>
<td>4.37</td>
</tr>
<tr>
<td>Epe</td>
<td>&quot;</td>
<td>24,937</td>
<td>9.67</td>
<td>117,481</td>
<td>10.89</td>
</tr>
<tr>
<td>Eti-Osa</td>
<td>&quot;</td>
<td>269,575</td>
<td>8.08</td>
<td>209,437</td>
<td>-1.67</td>
</tr>
<tr>
<td>Ibeju-Lekki</td>
<td>&quot;</td>
<td>24,937</td>
<td>9.67</td>
<td>117,481</td>
<td>10.89</td>
</tr>
<tr>
<td>Lagos Island</td>
<td>Inner City</td>
<td>269,575</td>
<td>8.08</td>
<td>209,437</td>
<td>-1.67</td>
</tr>
</tbody>
</table>

This decline in population is largely attributed to the declining function of the inner city as primarily a residential zone for the poor. Most residential use has been taken over by other competing and higher rent paying uses such as commercial use. As a result of this, the inner city lands and housing are now available to only those that can afford them. This has equally changed the composition of the population. The existing population of the inner city reflects those in high income stratum of the society as against the primary and the original occupants of the inner city which the classical theorists like Burges defined as the working poor. The poor in the inner city of central Lagos have been largely displaced by the rich members of the society because of the high rental value of housing in the inner city. The population which hitherto was homogenous has now become highly heterogeneous. The indigenous population rarely exists in the inner city. The existing population is of different socio-cultural background, specialized, skilled and consists of different stratum of occupation.

2. **Decline in Residential Land Use:** Residential land use in the inner city has been drastically reduced by other uses, most especially commercial land use in quick and continuous succession.

3. **Increasing Accommodation Density:** Though there still exists gross underutilization of land in the inner city, whereas some areas are largely staked with building living no space in between, at the rear and in the front.

4. **Lateral Expansion of the Inner City:** As the original inner city loses its function as residential zone for the poor and even as a residential zone, commercial use invades the inner city zone. The inner city zone itself expands rapidly to invade its immediate zone like Surulere, Ebute Metta, Yaba, Oyingbo among others that are built up to take care of the loss of residential land in the inner city, while the CBD keeps expanding to completely succeed the residential zone – the inner city.

7. **IMPLICATION FOR SUSTAINABLE GREAT CITY**

The concept of great city describes the readiness of a city to offer itself as a place to live and work for the greater proportion of the population that desire such, without jeopardizing that of the existing city dwellers. The changing form and function of the inner city of Lagos has significant implications for Lagos as sustainable great city, some of these implications include:

i. Excessive and undue consumption of energy; greater proportion of the city dwellers live far away from their place of work and place of economic opportunities. It means they have to consume more energy to transport themselves to the CBD in addition to time and funds usage.

ii. The heterogeneous nature of the inner city population presently lacks social cohesion thereby promote high rate of crime in and around the inner city, this throw up security challenges and social sustainability.

iii. The exclusion of the poor from the inner city negates the principle of social justice as espoused by sustainable development principle.

iv. Unguided lateral expansion of the inner city by the succession of the outer ring promotes haphazard development and emergence of slums and blighted settlements which may impair the city vista and economically expensive to manage. The uncontrolled expansion also promotes sub-urbanization and creates sprawl development which makes provision of social amenities and public goods more expensive. It also creates land use challenges, uneven distribution of land use activities resulting from uncontrolled land use changes and development. This poses challenges of accessibility and inter-connectivity, as development springs up without adequate accessibility.

8. **CONCLUSION AND RECOMMENDATIONS**

Lagos is rated as the second largest city in Africa and projected to double its present population of 10 million in the year 2020. The share size of this population will desire to live in the city and the Lagos Island CBD providing over 70% of its economic activities, the city needs to be pro-active and make its
inner city a focal place to live and work in by all. In view of this, it is recommended that the city managers should embrace and achieve smart growth principle, do more with less resources for example build more houses with less land in the inner cities by ensuring that available lands are maximally utilized in the inner city. As a matter of urgency, the city managers should take inventory of the inner cities underutilized lands or brown field and commence the process of redeveloping them into modern centers. Embrace private-public partnership principle in city development, evolve process of change and strengthen its institutions that are charged with the responsibilities of controlling land use and building development.

9. REFERENCES


Lagos Central City Inner Housing Market: Any Hope for the Poor?

Dr. Pauline Adebayo¹, Oyebamiji Okesoto
¹ Senior Lecturer
Disciplines of Architecture, Planning and Housing
University of KwaZulu-Natal, Durban
¹ Email: adebayop@ukzn.ac.za

Abstract

The paper examines the dynamics of the housing market in the inner city of Lagos Central, Nigeria and the place of the poor in such markets. The study is carried out through field survey which entails the administration of a total of 118 randomly administered questionnaires. Solicited data include socio-economic and demographic characteristics of existing participants in the housing market of the inner city of Lagos Central, their housing characteristics in terms of types, quality and tenure status among others. The study also assesses the operation of the inner city housing market in terms of demand and supply dynamics, pricing and public regulation, the suppliers and the attributes of the suppliers and housing delivery mechanism in the inner city housing market of central Lagos. The study reveals that greater percentage of the poor are excluded in the housing market of the inner city of central Lagos, resulting from affordability question, absence of public regulations of the market, the dominance of the market by private suppliers and absence of public support. The paper recommends for statutory intervention in the inner city housing market of Central Lagos among several other recommendations aimed at opening the market to every socio-economic strata of the society.

Keywords: Central Business District (CBD), Housing Market, Inner City, Lagos Central and the Poor.

1. INTRODUCTION

Lagos Central Business District (CBD) is the most economically buoyant CBD in the sub-Saharan of Africa. The CBD comprises over 60% of commercial institutions in the country. More than 60% of merchandise and retail commercial activities take place in the CBD. It is estimated that the CBD provides over 40% of employment in the country and over 70% of the total employment available in Lagos State. Surrounding the CBD is the inner city which classical theorists like Burgess, (1945) Homer Hoyt and Harris & Ullman describe as the workers’ residential zone, which provides dormitory for the poor working class, who ordinarily cannot afford to live far away from where they work due to commuting costs. Unlike the inner cities of the developed parts of the world which emerged during the post industrial revolution of 1945 as a product of the post world war II (Heyden, 2000). The inner city of Lagos central CBD did not emerge as a result of any industrial revolution but by political and cultural manipulations of the traditional settlers and further reinforced by the colonial administration of 1861 – 1959. The inner city of Lagos Central CBD as reported by authors like Aderibigbe, 1975, Mabogunje, 1964 and Peil 1971 is originally occupied by the poor local fishermen who consider the need to live closer to their place of economic activities as the most important factor to be considered in making decision of a place of abode. However, over the years, there seems to be depletion and general displacement of the poor by the rich from the inner city of the CBD.

The location advantage which the inner city enjoys makes it attractive to the affluent in the society most especially during the colonial and post colonial era. The frontage of the inner city by the Atlantic coast makes it a desirable place to live for the colonial masters. The displacement of the poor from the inner
city housing market started during the colonial era, as most colonial masters prefer to live closer to the coast which the inner city avails them. Succeeding colonial governments did all to perpetuate this invasion. Bigon, 2007 observed that the introduction of the tram rail line by the colonial government in 1930 was an attempt to perpetuate this succession. The post colonial government that emerged equally sustains this depletion as lands which originally belong to the poor by virtue of being the first settler were compulsorily acquired and the poor forcefully evicted from their original homes -the inner city under the pretext of inner city revitalization. These have all culminated into the creation of exclusionary housing market in the inner city of Lagos CBD. Apart from this, housing prices in the inner city of the CBD have risen significantly in real terms and relative to household income of the poor which makes it increasingly impossible for the poor to be active in the inner city market. Competition for building space among varying users in the inner city because of its location advantage subject space in the area to increasing demand and obviously push up prices of housing. The supply – side factor is another that may have been responsible for the increasing housing price in the inner city of Lagos Central. The desire of the greater proportion of the population to live closer to the CBD – (their workplace) is becoming so strong because of the poor connectivity and accessibility that characterized the state and the inability of the system to significantly increase the supply of housing in the inner city.

The paper examines the state of housing market in the inner city of Central Lagos with the view of integrating the poor into the market.

2. RELATED RESEARCHES

Market exists at a point in logical space and time where a uniform commodity is exchanged. A point in logical space and time where a uniform commodity is exchanged in conditions where buyers and sellers have had past and frequent market experiences (Jones, 2002). Agbola, 1997 defines housing market as a physical place where housing is brought into close chains of substitution. It is interplay of demand and supply forces of housing (Oyalowo, 2012).

Discussions on housing market exist virtually in every spectrum of the society. It occurs frequently in the news media, among investors, individuals, city managers and in the municipalities of nations of the world, planning departments and in the laws courts. Maclean, 2011 opines that these discussions assume diverse, analytical perspectives of the subject-housing market, suggesting that discussions on the subject contain not just a universal understanding of the phrase- housing market but many. There are therefore over simplification of the subject and in most cases the array of descriptions available are modeled after individual objectives and goal. For instance, Lanchman, 1986 opines that considerable gap exists between academic and commercial sectors like banks, real estate investors and major builders’ perception of the term housing market. In these wars of conceptualization, contrasts still exist as to the real structure of the inner city housing market. Many authors like Anderson, 1996, Case, et al., 2005 restrict discussions on the inner city housing market as an informal and low income housing market. However, trends in other works have shown that the inner city housing markets are in sub structures comprising all forms of housing market - formal and informal, low and high density, renter and owner occupier, low income and high income sub- markets.

One explanation that unites these arrays of conceptions is that housing market is an interactive forum for both the supplier and consumers of housing as it sets the mechanisms or arrangements that facilitates flows of information between buyers and sellers of house. Another common front among these authors is that the housing market is made up of mainly immobile goods that are locationally fixed, complex, have attributes that are difficult to measure and heterogeneous in shape, size, quality and design. In the midst of these controversies, housing is recognized as a commodity, though with its own special attributes that are purchased and consumed jointly with the neighborhood characteristics that sustain them. All of these impact the structure and process of the market.
The inner city housing market of Central Lagos is complex to interpret because of its variance with the inner city characteristics of the other parts of the world. In Lagos Central inner city, both high quality and low quality environments exist side by side. This study therefore uses empirical data to describe the structure of the housing market in the inner city of Central Lagos and how this structure has excluded the low income groups of the society.

3. THE STUDY AREA

The study area is the inner city of Central Lagos comprises of the immediate neighborhoods surrounding the CBD. It is the epicenters of Metropolitan Lagos covering the present day Lagos Island, administratively the whole of Lagos Island and parts of Eti-Osa Local Government Areas (LGAs) are included. The CBD extends from Idumota – Isale Eko in the North, Obalende and Onikan in the South, Epete and Sangrouse in the East and Marina Olowongbowo Apongbon in the west.

Lagos Central is one of the several cities that make up Lagos metropolis. It is popularly called Isale-Eko (Down Lagos). It is one of the oldest settlements of Lagos. In fact, the 1914 amalgamation of the southern and northern protectorate took place at Tinubu one of the neighborhoods in Central Lagos, comprises of Lagos Island, Ikoyi and Victoria Islands (see fig 1.1) occupying a total land area of 8.7km2. Lagos Island comprises the busiest and the most buoyant Central Business District (CBD) in Lagos. The, district is characterized, by high rise buildings, which contains the metropolis’s largest wholesale market places like Idumota and Balogun markets. It also contains some institutional, historical and religious buildings like the National Museum of Nigeria, the Central mosque and the Oba’s palace. Surrounding the CBD around Lagos Island are residential settlements like Obalende, Ikoyi and Victoria Island. These settlements constitute the inner city of Lagos Central. Obalende and Ikoyi are twin settlements and differentiated by their housing characteristics, situated to the east of Lagos Island (the CBD). Available houses in Ikoyi are of high quality and predominantly occupied by the middle and the upper class income groups in the metropolis. Though, originally occupied by the low and middle income groups because of its proximity to the CBD, this group has since been displaced. Obalende, on the other hand is characterized by poor housing structure and type, but expensive and unaffordable for the low income group. Residential land use in these two settlements are rapidly being taken over by commercial land use, hence there is acute shortage of housing. Victoria Island, which constitutes the integral part of central Lagos, is situated to the south of the CBD. It is also a residential settlement with eyebrow housing occupied by the upper income group of the metropolis. There is also rapid succession of residential land use in this part of central Lagos by commercial land use.
4. METHODOLOGY

The method adopted for this study is mainly survey method. The method entails administration of questionnaires on the residents of the inner city of Lagos Central, mostly household heads. The entire city was grouped along line of neighborhood environmental quality. Using the Independent National Electoral Commission (INEC) electoral ward delineation use for the 2011 general elections in the country at large, the locality which comprises of a total of twenty four electoral wards were stratified into two comprises of the low quality neighborhoods of Obalende, Popo – Aguda and Epotedo and the high quality residential neighborhoods of Ikoyi, Lekki and Victoria Island.

A total 144 questionnaires were randomly and evenly administered on household heads or their partners, giving a total of 72 questionnaires in each of the stratified neighborhood group. Respondents were randomly picked from residential buildings that fall within the selected wards, as a rule, one household head in each of the randomly visited housing units. Results were descriptively and inferentially analyzed and presented using various statistical means.

5. DATA ANALYSIS AND FINDINGS

The Household

Analyzed data reveals that 124(86%) of the respondents are male household heads 12(8%) of the respondents are female whose male heads were unavailable as at the time of the survey while 8 (6%) of them are females who live as household heads, they are either divorced from their husbands or live as widows. The average age of household head is 48 years with standard deviation of 4, though difference exists between the average age of those found in the low quality residential neighborhoods and the high quality residential neighborhoods. Ethnic difference equally exists, while the high quality residential neighborhoods areas have diverse ethnic backgrounds that of the low quality neighborhoods belong to the Yoruba ethnic group.

The domination of the low quality residential neighborhoods of Obalende, Popo- Aguda and Epetedo, has historical underpinning which exists as far back as the colonial era when the indigenous area was segregated from the newly developed colonial quarters of Marina, Ikoyi and Victoria Island predominantly occupied then by the foreign expatriates and the colonial masters which were later taken over by the government officials of Nigeria post colonial era.
Socio–economic attributes of respondents

In both the low and high quality residential neighborhoods of the inner city, respondents are generally of high level of education. Out of 96 respondents (67%) have educational attainment beyond secondary school level (see figure 2.1) and a total of 42 (29%) of them have post primary education while only 6 (4%) have just primary education.

Source: Field Survey April 2014

All the respondents are employed figure 2.2 shows that 86 (60%) of the respondents are self employed, trading being the largest proportion 58 (40 %) of them are into formal employment, majority of whom are privately employed. The banking and the financial sector have been the highest employer, followed by specialized services sector such as construction, estate, law etc. Those publicly employed are majorly in public corporations like Central Bank of Nigeria and Nigerian National Petroleum Corporation.

Source: Field survey, April, 2014

All the respondents have their work places located in and around the CBD, and spend average of 20 minutes from their residence to their respective places of work. Respondents mean income as measured across the two stratified neighborhoods is ₦284,856.00 per month an equivalent of ₦9,495.20k per day and ₦60 per day with a standard deviation of ₦14,800.00. Though significant difference exists between the incomes of the two groups from the student - test result of 2.4 obtained. The mean income of ₦368,000/month measured in the high quality residential neighborhood was find to be significantly different from that of the low quality residential neighborhood of ₦226,000/month.
However, the two groups mean income as obtained suggests that the residents of the inner city of Central Lagos are largely of high income group going by the definition of the National Housing Policy of 2011 which describes the low income earner as individual who earns less than 20% of the highest paid public worker in the country which by rule includes all those that are on level 01 – 06 of the civil service cadre and by extension those that are self employed. This translates to a monthly income of =N=60,000.

The factors accounting for the high income could be attributed to the educational qualifications of the respondents which directly will enhance their access to high income employment opportunities.

HOUSING CHARACTERISTICS OF RESPONDENTS

Results obtained shows that 48 (67%) of the respondents in the low quality residential neighborhood live in rooming appointment, comprises of single room and in some cases a bed room and living room with shared housing facilities such as balcony, toilets, and kitchen, 14(19%) live in flats, while 10 (14%) live in flat-let housing type (see table 2.1). In contrast to this, the high quality residential neighborhood is characterized with large number of self contained housing types such as duplex, massionette and flats.

Table 2.1: Housing Type

<table>
<thead>
<tr>
<th>Rooming Apartment</th>
<th>Flat-let</th>
<th>Flat</th>
<th>Duplex</th>
<th>Mansio nette</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Neighborhoods</strong></td>
<td><strong>No</strong></td>
<td><strong>%</strong></td>
<td><strong>No</strong></td>
<td><strong>%</strong></td>
</tr>
<tr>
<td>Low quality residential neighborhood</td>
<td>48</td>
<td>67</td>
<td>10</td>
<td>14</td>
</tr>
<tr>
<td>High quality residential neighborhood</td>
<td>-</td>
<td>-</td>
<td>18</td>
<td>25</td>
</tr>
</tbody>
</table>

Source: Field survey, April, 2014.

Most of the houses in the low quality residential neighborhood are ill maintained, lacking basic facilities such as adequate bathroom, toilets and kitchen, waste waters are improperly disposed and openly emptied into open drainage, though roads abutting the houses are tarred but poorly laid out with sanitation issues. The houses are inadequately ventilated, of poor finishing and generally substandard in terms of setback and parking facilities. Houses in this environment are built closely to one another. Roof materials are generally poor and made up of rusted corrugated iron sheets, most of which have turned into brown color.

In contrast to this condition are the well laid-out and well designed housing units of the high quality residential unit of the inner city. The roads apart from being tarred are well maintained and illuminated. Sanitation is generally of high standard in these neighborhoods. The houses except in few cases are of good planning standard, well ventilated, showing evidence of regular maintenance and good finishing.

The housing conditions in the two residential areas are subject to four scale weighted index describe as housing quality index, the highest being that with four and the least rate on scale one. This is correlated with respondents income and Pearson moment correlation test carried out using the two variables - high
quality index and the income index of the respondents across the two residential neighborhoods, correlation value of +0.88 indicates that relationship exists between income and housing quality of respondents on the inner city of central Lagos thus inferring that the higher the respondent income, the higher his/her housing quality index.

HOUSING TENURE AND MOBILITY

Housing mobility is generally high in the low quality residential neighborhood. Table 2.2 reveals that in the last 6 months a total of 24 respondents have changed their residential location within the locality, a total of 34 changed their residence in the last 18 months in the same location and only 14 have not changed their residence in the last 24 months or more.

Table 2.2: Residential mobility of respondents

<table>
<thead>
<tr>
<th>Neighborhoods/Residential relocation</th>
<th>In the last 6 months</th>
<th>In the last 12 months</th>
<th>In the last 18 months</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>%</td>
<td>No</td>
</tr>
<tr>
<td>Low quality residential</td>
<td>24</td>
<td>33</td>
<td>34</td>
</tr>
<tr>
<td>High quality residential</td>
<td>2</td>
<td>8</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: Field survey, April 2014.

However, respondents in the high quality area demonstrates less residential mobility, only 2 respondents have changed their residence in the last 6 months just 8 have changed their location in the last 12 months.

The variation could be attributed to so many factors one of which is that housing expansion is limited in the low quality residential neighborhood and vacancy rate is equally high because of the desire of residents to relocate to a better and more spacious apartment. The cost of relocation in the low quality residential neighborhood area is equally lower compared to that of the high quality residential neighborhood area in the inner city.

All the respondents are tenants on different tenure term. The tenure in terms of time is lower in the low quality residential neighborhood, the least being six months while majority are yearly tenants. There are more of yearly tenants in the high quality residential neighborhood while few of them are on lease of five years.

HOUSING PRICING, OCCUPANCY RATIO AND AFFORDABILITY LEVEL

Housing prices vary over space in the two residential neighborhoods and generally higher in the high quality residential neighborhood. Single room in a typical rooming apartment in the low quality residential neighborhood goes for an average of ₦7,500/month, flats (2 or 3 bedroom) are rented for an average of ₦30,000/month. Comparing this with the mean income of the respondents in this area suggests that an average respondent spends about 35% of their income on housing rents, a level considered unaffordable by the National Housing Policy recommendation of 25 – 30%. Though the analysis considers the highest accommodation price, however the rooming price will translate to just 15% of the respondents income suggesting a good affordable level, this is not popular. On the other hand, in the high quality residential neighborhood, prices of houses are generally on the high side, a flat goes for as much as ₦280,000/month, a duplex goes for ₦280,000/month.

The lowest respondent in the high quality residential neighborhood spends 27% of their income and the highest income respondent spends 18% of their income suggesting affordability range of 18-27%. Occupancy ratio is high in the low quality residential neighborhood. Survey reveals average of 4 person
per room and 2.5 persons per room in the high quality residential neighborhood. This disparity is unconnected to the difference in housing typology of the two areas. Housing density is equally generally high in the low quality residential neighborhood.

FACTORS DETERMINING CHOICE OF RESIDENCE

Respondents were asked to identify factors they considered in the choice of their present residential location. A total of 148 opine its proximity to place of work, while a total of 64 in addition to proximity to place of work considered affordability, 126 respondents considered in addition to proximity to place of work with spatial requirement, a total of 108 considered accessibility to public goods and amenities in addition to proximity to place of work. Over 70% of respondents in the low quality residential neighborhood expressed their desire to relocate to better and more spacious housing units within the inner city, while the remaining 30% respondents desired to remain in their exiting residence.

6. CONCLUSION AND RECOMMENDATIONS

In view of the analysis made in the previous section, the study has shown that in term of housing pricing in the inner city of Lagos Central housing market, the poor are excluded. This is evidenced in the analysis of the socio-economic status of the respondents. However, this does not suggest that the poor do not live in the inner city but observation reveals that they are mostly found in the informal or slum housing market of the inner city. The research therefore opines that in order to sustain the competitive nature of the inner city and make the CBD of Lagos Central more vibrant, promote city inclusiveness and social integration, the government as a matter of urgency should pursue policies capable of bringing back the poor back to the inner city to co-habit with the high income earners. In addition to this, the city managers should strengthen its physical planning agencies to address land use challenges of the inner city which manifests generally in the invasion of residential land use of the inner city by other competing uses, like commercial, public and religious users.

7. REFERENCES


Maclean, D. 2011, Understanding Housing Markets: Real process or stalled Against. The Siege Hand bookof Housing Studies.


Peil, M 1971, Lagos: the city, the people, Bellauch Press, London.
C Section Duncan Village: Applying Some Innovative Layout Concepts in The Absence of Being able to Design a Real In-Situ Upgrading Project

Simon Cartwright Nicks
Director
CNdV Africa (Pty) Ltd
PO Box 16465, Vlaeburg, 8018
Tel: +2721 424-5022 Fax: +2721 424-6837
Email: simon@cndv.co.za

Abstract

The purpose of this paper is threefold: to briefly share a glimpse of the life and opportunities in one of the densest and best located informal settlements in South Africa; to describe the institutional and governance structures that negated the possibility of C-Section’s organic development into a unique and vibrant urban quarter of East London that might have happened if an in-situ upgrade approach could have been followed: and, to illustrate, notwithstanding that a conventional roll-over upgrade approach prevailed, some innovations that, nevertheless, represent a significant step forward in the design approach to these projects.

This case study has demonstrated significant moves from the low density, single storey, one house on plot, vehicle priority township design that continues to dominate the growth of South Africa's urban settlements, especially on their low income peripheries. While there are a number of extenuating circumstances including: duncan Village’s long history, especially as a site of struggle against the previous regime, which also resulted in its avoiding forced removals; its unusually close location to the CBD of East London; and, its very high population density. There are approximately 3 500 to 4 300 households living on 22 hectares; that make this project different to others in South Africa it does provide a stepping stone towards implementing the new urban order so desperately needed in SA’s urban settlements if they are to become the efficient, affordable, pleasant and convenient settlements that everyone from national government downwards aspires to.

Some important wins were achieved in the design and its approval. Councillors and engineers accepted a large number of thoroughfares could be pedestrian only. Community representatives accepted that a large number of properties could not accommodate on-site car parking if there were to be as many households in this well-located project as possible. Innovative multi-occupancy housing typologies were also accepted, not only because of the income they could generate but because of their ability to increase the dwelling unit carrying capacity of the site two or threefold. This creates a chance for the scheme to achieve its original household carrying capacity.

Keywords: Urban design roll-over informal settlement upgrade

1. PURPOSE OF PAPER

The purpose of this paper is threefold:

- To briefly share a glimpse of the life and opportunities in one of the densest and best located informal settlements in South Africa;
- To describe the institutional and governance structures that negated the possibility of C-Section’s organic development into a unique and vibrant urban quarter of East London that might have happened if an in-situ upgrade approach could have been followed: and,
• To illustrate, notwithstanding that a conventional roll-over upgrade approach prevailed, some innovations that, nevertheless, represent a significant step forward in the design approach to these projects.

2. LIFE IN C-SECTION DUNCAN VILLAGE

C-Section Duncan Village is one of the densest informal settlements in South Africa. It is also one of the oldest, see Figure 2.1. Some residents moved in in 1959!

Its gross densities exceed 180 dwelling units per hectare. This is partially due to its location only three kilometres from East London CBD. A community at these kinds of densities is extraordinarily vibrant and has access to considerable social and economic resources and opportunities, see Figures 2.2 to 2.6.

Figure 2.1 C-Section showing dense settlement pattern
There are two interrelated reasons for this:

First, its very close location to the CBD, see Figure 2.6, compared to informal settlements and townships in most other SA cities with the possible exception of Alexandra in Johannesburg and Sobantu village in Pietermaritzburg. This means there is a wide range of economic opportunities within walking distance. This creates a high level of resilience and robustness for vulnerable urban dwellers. If they lose a job or business in one location they can easily and cheaply get to another, by walking if necessary.
Secondly, this nearby location attracts a great many people whose togetherness itself creates opportunities. In C section alone there appear to be about 3 500 to 4 000 households living on 22 hectares.

These opportunities are not only commercial or financial but are also social. A highly dense network of social support networks, including child minding, nutrition, worship, sport, family and even community safety, is able to thrive in such conditions.

However, its material conditions leave a lot to be desired, see Figures 2.7 to 2.10.

Practical challenges include how to improve services and access. Water and waste water facilities are provided communally. Refuse removal comprises large skips collected once or twice a week. Storm water floods in many areas when it rains. Improvements are impossible without wider access channels in the dense urban fabric.

There are also safety issues relating to flooding, fire and personal security.

However, a successful upgrading program should do more than address material deficiencies in shelter and services. Ideally, it should also protect and enhance prevailing socio-economic networks and support systems, and, if this is not possible, give thought as to how future design of upgrade schemes can allow new replacement networks to regenerate themselves as quickly as possible.

**2. GOVERNANCE STRUCTURES AND INSTITUTIONAL ATTITUDES**

The key stakeholders in the process were the councillors, community members and technical staff of Buffalo City Municipality.
The process was complicated by municipal elections a third of the way into the process and new councillors emerged who had to undergo orientation training to familiarise them with their new roles.

The various stakeholders had different aspirations for the project:

- The community’s main aims were that as many people as possible should continue to enjoy the locational advantages of C Section and that there should be a significant improvement in their material conditions.

- The councillors’ had different opinions on the vision for the future of C Section. These ranged from a minimum plot size of 600m$^2$ plots catering for only the original residents, to a small plot RDP type township built to conventional standards with regulation road widths and every plot accommodating a parking bay.

- The BCM officials recognised a couple of important realities. On the one hand they pragmatically understood that, notwithstanding the merits of an in-situ upgrade “re-blocking” approach, the prevailing governance capacity and institutional context would make it very difficult, if not impossible, to obtain political support for such a project. On the other hand, and very excitingly, they had been exploring the work of Christopher Alexander in South America and had in their possession a Master’s thesis from a US urban designer who had used Duncan Village as a case study. (Caldwell, R.N, 2009) This provided a different urban design approach, see figure 3.1, to the ubiquitous “blue book” curvilinear, vehicle priority, township layout which continues to dominate most RDP and even middle and upmarket urban developments in South Africa.

![Figure 3.1](image)

They also had the overriding concern that as many as people as possible had to be accommodated, not the least because of the reluctance to be the ones to tell surplus people they have to move!

Thus, the design process had to embrace a high degree of physical innovation as well as negotiation skills between stakeholders with very different aspirations and technical skill levels.
3. THE CASE FOR IN-SITU INFORMAL SETTLEMENT UPGRADE.

Notwithstanding the challenges of in-situ upgrading this strategy was initially explored. Ever since the in-situ upgrading of Naledi in Gaberone in the 1970s and the still born Urban Foundation proposals for upgrading Crossroads in the 1980s, in-situ upgrading has been viewed as an ideal strategy for the development of informal settlements in South Africa. The historic growth of the city centres of Paris, Rome, Zurich, London and Dublin whose informal settlement origins can clearly be seen in their street network patterns is also cited as reasons why in-situ informal settlement upgrade options should be pursued. There have been recent examples and the current “re-blocking” of Ruimsig in Johannesburg is a current much publicised project that appears to be successfully achieving an in-situ upgrade. (sasdialliance.org.za/projects/ruimsig)

After the initial analysis of the site opportunities for a re-blocking process were explored, see figures 4.1 and 4.2.

![Figure 4.1 Option 1: 3m service corridors](image1)

![Figure 4.2 Option 2: 8m roads, 2m walkways](image2)
However, as mentioned above, early on in the process it became clear that there were not the sustained levels of energy, political will and social, technical and project management skills and capacity necessary to support a true in-situ “re-blocking” upgrade program, see figure 4.3. This option had to be, reluctantly, in the eyes of the consultant team, discarded and a roll-over approach followed, see Figure 4.4.

4. AN INNOVATIVE ROLL-OVER UPGRADE SYSTEM

Although a roll-over program had to be considered the opportunity was presented to push the design envelope. The BCM officials had already been applying their minds to more innovative technical solutions. However, there were still some challenges. Simplex, multi-storey apartment buildings, which would have been the most obvious typology to achieve the greatest unit capacity and for which East London is well known as it was here that social housing was pioneered, was out. All units had to touch the ground, even if multi-storey.

Even so, the new councillors were concerned about double storey, semi-detached and row housing. After some presentations the housing committee visited Stellenbosch and Alexandra in Johannesburg to see examples of these housing typologies and to gain residents’ feedback on what it was like living in them, see Figures 5.3 and 5.4.

They returned impressed with the neighbourhood feel created by the urban form of these typologies and some of the innovations in Alexandra, especially the double subsidy option with a two storey primary unit and two lodging rooms with a second bathroom, see Figure 5.4.

These site visits set the scene for an innovative approach to the redevelopment.
5. **KEY GROUND RULES:**

An important step in the process to try and bring certainty to the design and approval process and to minimise risks and costs was to obtain agreement to a number of key ground rules up front. In other words, to create a project charter. This would help to avoid “policy flip flops” that could slow down the process and add to its costs.

A similar approach was taken in the design and approval of settlement layouts in Imizamo Yethu in Hout Bay. The often volatile process here illustrated the importance of achieving key ground rules, as every time new demands arose, there could be a return to the original agreements to stabilise the situation.

The main rules agreed were as follows:

**Residential plot size:** this is the most fundamental building block of any layout design process and is closely scrutinised as it affects the well-being of each and every household.

After much debate, the visits to Stellenbosch and Alexandra and a review of the de factor plot sizes in the existing settlement, many of which are smaller than 50m², a minimum plot size of 75m² was agreed on. This was to seen to be workable, particularly if a double storey BNG
typology with a footprint of only approximately $21m^2$ was used as this would leave a garden area of almost $50m^2$.

**Parking:** After much discussion it was agreed that not every plot need accommodate parking. The details of how this would be resolved are described later on.

**Split of single and double storey units:** The councillors’ initial preferences were that all units should be single storey. After the challenge this would create if unit numbers were to be as high as possible was demonstrated there was agreement that most of the units could be double storey. However, there should be a significant number of single storey units to accommodate the elderly.

**Vehicle versus pedestrian access:** Again the councillors reasonably and understandably assumed that vehicle roads should be the norm in the proposed redevelopment. This went hand in hand with the initial requirement that all plots should be able to accommodate parking. Once this parking requirement had been demonstrated as unnecessary for every single plot then it followed that, not all roads needed to be capable of accommodating motor vehicles, and agreement was achieved for this ground rule.

6. **GIVING EFFECT TO THE GROUND RULES: SOME DESIGN INNOVATIONS**

It is one thing getting agreement on the ground rules listed above but quite another when it comes to practically resolving them in the design of a project.

The ground rules were primarily aimed at achieving the highest possible densities in a well-designed township but it was important that the project design should not pursue numbers to the exclusion of all else. This design should also accommodate all the necessary innovations to provide pleasant, safe and economically enabling opportunities for people to live, play and where possible and necessary, gain livelihoods through jobs or small businesses.

However, the key challenge facing urban designers and town planners in most township design projects is public or private sector clients demanding the biggest number of plots, and, these plots should also be as large as possible!

This contradictory demand is made even more challenging when the full ranges of roads and their required road widths and dedicated space for community and business facilities has to be provided. This set of contradictions can drive design professionals to despair.

Two design options were explored to resolve these competing demands.

The first followed a conventional design approach with narrow plot frontages abutting conventionally wide streets.

The second approach explored the impact of the wide frontage of plots abutting narrower streets designed as pedestrian lanes. Interestingly, although the same size plots were used in both options, approximately $75m^2$, the wide frontage layout proved to be considerably more efficient than the narrow frontage layout.

There appear to be two reasons for this. First, and most obviously, the narrower street widths had a significant space saving over the whole layout. Secondly, and this can only really be appreciated by a comparison of the two perspectives below, see Figures 7.1 and 7.2, it can be seen that the wide frontage layout results in a much larger building coverage of the whole site than the narrow frontage option.
However, it is one thing discovering these opportunities in a design exercise and quite another getting them incorporated and approved into a layout that is going to be built. Achieving this would require gaining technical and political support for a number of important preconditions:

In order to get the innovative layout configuration described above accepted the following was necessary:

- **Gaining acceptance for a large number of thoroughfares to be pedestrian only;**

  This required meeting a number of tests;

  First, it had to be demonstrated that all the necessary storm water, electricity, telecom, waste water and water services could be accommodated in a thoroughfare designed primarily for pedestrians only;

  This was achieved with the following section that demonstrated this to the satisfaction of the municipal and consulting engineers, see Figure 7.3.
Secondly, the necessary fire and emergency services had to be accommodated. This was done by demonstrating on the layout that nowhere was further than 90 metres, the reach of a fire hose, from a fire hydrant, and in most cases it is shorter. To enable patient evacuation the pedestrian lanes had to accommodate a gurney, see Figure 7.4.

- **Motivating that a significant number of properties not have parking bays.** However, establishing that pedestrian lanes could work for services and emergencies led to the next challenge, a major preoccupation in most low income new housing developments, accommodating the motor car.

Trying to accommodate the car in RDP schemes has always led to a number of fundamental but seldom discussed policy contradictions and design questions. These include:
- The aspiration that all households should be able to own cars – particularly to achieve a reasonable level of convenience given South Africa's sprawling urban areas;

- The spatial opportunity costs of accommodating cars and their necessary parking and road geometrics because this reduces unit numbers. These opportunity costs increase the closer a project site is to a CBD or other concentrations of urban opportunities;

- The reality of affordability and how households whose incomes are low enough (less than R3 500 per month) to qualify for the full housing subsidy can have the means to operate and even acquire cars;

- The often quoted aspiration that if people can’t afford cars now, they might be able to in the future and, therefore, where will they park? and,

- The national, provincial and municipal policies to promote public and non-motorised transport wherever possible.

These contradictions were eventually resolved in favour of only partially providing for the motor car by demonstrating the following:

- Noting that, notwithstanding that C Section was over 50 years old with some residents having moved in 1959, car ownership and usage levels still remained extremely low; and,

- That at least 50% of the properties, mostly those abutting the large vehicle routes, could have kerbside parking at or near them in the new design, see Figure 7.5.

Figure 7.5  Plots abutting parking bays

- **Innovative multi-occupancy housing typology.** The typology based on the Alexandra London Road project was also accepted, see Figure 7.6 below. This was because not only of the income it could generate but because of its ability to increase the dwelling unit carrying
capacity of the site two or threefold. This offered a chance for the scheme to be in range of achieving C-Section's original household carrying capacity.

Notwithstanding that the compromises on street width and parking ratios were accepted a major capacity challenge remained that only approximately 1 500 dwelling units could be accommodated.

A strategy was required whereby, if needed, the occupancy density of the project could be significantly increased. It was demonstrated that the lodging rooms option could be accommodated on any of the sites in the project. This meant that if two lodging rooms were built on each property another 3 000 households could be accommodated. This flexibility could go a long way to accommodating many of the previous residents, much of whom were likely to be weekly, monthly or annual periodic migrants to the city and whose primary residence is elsewhere, probably mainly in the rural areas.

Figures 7.7 to 7.9 illustrate the other house types that could be accommodated with the single storey encouraged for the elderly only.

Three and four storey simplex apartments were out as were the apartment buildings for which East London is well known. All units had to touch the ground even if two storey and be capable of individual freehold ownership.

7. Creating a Sustainable Human Settlement

Both these terms have been used so much they have almost become meaningless clichés. Part of this has been due to the glib way in which the terms are used. The word 'sustainable' is, more and more, attached to almost every settlement developed for any income group although it is given slightly more meaning by the increasing use of solar hot water heating, rain water harvesting and, in some instances, PV panels on the standard RDP housing typologies.
The term “human settlement” is appended to all public sector housing projects even if, in many instances, they are only delivering houses and the other facilities that should transform them from being a housing project to a human settlement are only provided some time in the future by other organisations and departments.

Furthermore, usually desired rapid, large project delivery approach often results in the design of human settlements that, instead of being designed with the possibility of their becoming urban villages within the settlement each with its own nucleus, personality and character, are laid out on industrial-like curvilinear grids whose main intersection is only to facilitate the quick erection of seried rows of standardised, stand-alone, monotonous, cost-efficient-design (CED) single housing typologies.

7.1 The urban design framework

Instead, the urban design framework took other approaches wherever possible to create a completely different kind of living environment, see Figure 8.1.

It comprises a major spine route through the centre of the site connected to the surrounding road system with link roads. The intersections of these link roads with the major spine route form a series of village squares with an open space and supporting community facilities.

The link and spine road network will carry vehicle traffic as well as public and non-motorised transport including cycling lanes, and all the parking in the scheme. Approximately half the properties in the scheme abut this vehicle road network and will have access to kerb side parking.

![Figures 8.1 Site Development Plan](image)

These road reserves are also wide enough to accommodate cycle lanes and enable the planting of two rows of trees thus creating a shady and pleasant pedestrian sidewalk network for residents and visitors alike.
This route network forms a skeleton that contains and supports a series of super blocks each laid out with a parallel grid of pedestrian streets. In each case the super block has been oriented, in conjunction with the engineers, with the underlying contours to achieve the following:

- optimum falls for services within each pedestrian lane;
- minimum need for cut and fill on residential plots thereby reducing construction costs and improving residents' comfort;
- optimum gradients, where possible, for convenient pedestrian usage; and,
- the best orientation for plot layout as a consequence of the plots being orientated parallel rather than perpendicular to the street network because their long sides abut the access lanes. This also minimises construction costs and results in much less need for retaining walls high foundations.

### 7.2 Sub-village centres

To create the physical pre-conditions to enable a sense of sub-community and precincts or quarters to arise the intersections of the super-blocks were designed as urban sub-nodes or village centres around an open space flanked by community facilities, see Figure 8.2. Small scale commercial activity can develop through mixing uses on residential and community facility properties as well as along road reserves and open space where appropriate. Simple architectural and urban design guidelines for the community facilities and commercial buildings, to be applied as and when they are built, will help to create the necessary physical form to create these sub-village centres and support these higher levels of activity.

![C-Section Central Square: west view](Images/cSectionCentralSquareWestView.png)

### 7.3 Commercial opportunities

No dedicated commercial sites have been identified. This is due to:

- the need for as much land as possible in the beginning for housing purposes;
- the difficulty of trying to predict at arm’s length where the best commercial opportunities will be found, a task best left to entrepreneurs themselves in this context; and,
- the need to, within reason, allow and enable as much trading and business activity to happen as possible from people’s homes, so as to minimise barriers to entry as much as possible and create concentrations of lively activity throughout the scheme.
In many cases the pedestrian lanes meet the main street network at varying angles thus creating interesting little triangular courts, street trading opportunities and social gathering spaces. In the larger blocks pocket parks have been introduced to provide breathing and gathering spaces close to residential dwellings and relieve the intensity of these environments.

7.4 Housing typologies

In order to maximise the benefits of the housing typologies on the scheme as a whole the three main housing typologies should be arranged as follows:
- Standard double storey BNG houses, towards the periphery of the large blocks;
- Standard double storey BNG houses with two lodging rooms and second bathroom also towards the periphery of the super blocks; and,
- Single storey houses with smaller gardens towards the interior of the super blocks owing to their larger footprint.

This pattern of arranging taller typologies towards the edges of the superblocks will have the effect of shielding the internal areas from the hustle and bustle of the main street network and reinforcing its importance and opportunities through higher levels of activity alongside these routes.

7.5 Open space and green system

This operates at a number of levels:
- The major system comprises large open areas associated with the water courses and flood plain around and through the settlement. These have been identified for gardening and kick-about purposes. In all cases they are outlined by single sided roads to ensure that development faces onto these spaces and that they are always open to surveillance from passers by;
- The major route network is lined with treed and boulevarded sidewalks;
- The urban sub-nodes or village centres are anchored by one or more kick-about spaces which can be flood lit and provide accessible active day and night recreational space;
- Within the larger super blocks pocket parks are provided to ensure that residents are never more than five or six front doors away from an open space;
- The mostly triangular junctions of the pedestrian lanes with the major street network also form little treed pocket parks;
- Overall the green network has been designed to be functional, under surveillance at all times and in all places and easy to maintain.

8. CONCLUSION

This case study has demonstrated significant moves from the low density, single storey, one house on plot, vehicle priority township design that continues to dominate the growth of South Africa's urban settlements, especially on their low income peripheries.

While there are a number of extenuating circumstances including:
- Duncan Village’s long history, especially as a site of struggle against the previous regime, which also resulted in its avoiding forced removals;
- its unusually close location to the CBD of East London; and,
- its very high population density;
that make this project different to others in South Africa, it does provide a stepping stone towards implementing the new urban order so desperately needed in SA’s urban settlements if they are to become the efficient, affordable, pleasant and convenient settlements that everyone from national government downwards aspires to.

Some important wins were achieved in the design and its approval. Councillors and engineers accepted a large number of thoroughfares could be pedestrian only. Community representatives accepted that a large number of properties could not accommodate on-site car parking if as many households in this well-located project as possible were to be located. Innovative multi-occupancy housing typologies were also accepted, not only because of the income they could generate but because of their ability to increase the dwelling unit carrying capacity of the site two or threefold. This creates a chance for the scheme be in range of achieving its original household carrying capacity.

8. DISCLAIMER

The information and opinions in this paper are the sole responsibility of CNdV africa (pty) and cannot be attributed to any other person or organisation.

9. ACKNOWLEDGEMENTS

Buffalo City Municipality: R Pretorius, A Meiring, A Titus, Q B Mjoli, N Mlotywa, Z Qoma

BVI Engineers: L Pienaar

10. REFERENCES


The Future of South Africa’s Rural Villages: …Rural Development or Suburbanisation by Stealth?

Simon Cartwright Nicks

 Director
 CNDV Africa (Pty) Ltd
 PO box 16465, Vlæberg, 8018
 Tel: +2721 424-5022 / Fax: +2721 424-6837
 Email: simon@cndv.co.za

Abstract

CNDV Africa has been working in deep rural areas in five South African provinces over the past three years. Traditional authority areas are characterised by large numbers of sprawling rural villages, mostly arising from the betterment schemes of the 1950s and 1960s. The gridiron rural villages were originally intended to consolidate the organic scatter of kraals on the most accessible but least agriculturally important landscapes so that they could accommodate the reverse urbanisation achieved under apartheid when 3.5 million were moved back to the rural areas.

Today the situation is very different. Villages, particularly in the fertile parts of the country continue to expand. This usually takes the form of adding more plots on the edge of the current villages.

At first glance this appears unusual given the worldwide levels of urbanisation that occur especially in democratic countries where people are freer to move than under totalitarian states. However, there seem to be five main reasons for this:

- Local livelihoods: agriculture, employment, small businesses, social grants;
- Retirement
- Security of tenure in case something goes wrong in the city;
- Rural 2nd homes for social and recreational purposes;
- Need for a separate rural house from the family home for newlyweds.

Under these circumstances residential development pressures are likely to continue for another two decades at least.

What then is the long term vision for these rural areas?

Currently there are two, the low density informal extensions to the betterment schemes of 2000 – 2500m²; and the slightly higher suburban township approved schemes with an average plot size of 650m².

In many instances, rural development is taking on the appearance of suburbanisation. This process is being deepened by steadily improving levels of facilities, including high schools, tarred roads, neighbourhood shopping centres, strip malls, large service stations. If rural development were really happening then the landscape would be intensifying with increased agricultural activity, e.g. areas under the plough, agricultural distribution channels, co-ops, warehouses, plant etc. mining and tourism.

The question is… what kind of great places are our rural areas becoming?

Are we ready for this? Are municipalities ready to manage new Constantias and Bryanstons stretching for many hundreds of kilometres with the likely increase in demands for better quality services, street
lights, weekly refuse removal, more shopping centres, education and health facilities and improved transport?

Do we need to change our institutional structures? Are the traditional authorities the forerunners of the old divisional councils of the Cape with their laborious processes for transferring land whose use had changed from rural to urban over to the nearest urban municipality? Should we be making the de facto situation whereby municipalities have say over all the non-traditional authority land de jure, but de facto, the rest of the municipality falls under the traditional authority? and therefore, acknowledge formally the current status quo? And what of the practical and efficient future?

This paper will attempt to clarify some of these questions and suggest directions in which we should start thinking about answers.

**Keywords:** Rural development rural suburbanisation

1. **BACKGROUND**

Most media articles about South Africa’s rural areas paint a picture of poverty, lack of resources, and, from occasional reports of murders and rapes, social instability. Stories of collapsing mud schools, bridge collapses, bus crashes, drownings and lightning deaths in unprotected rondavels often dominate rural news. Aids abounds. Occasional disease outbreaks require quarantine cordons or even mass slaughter of livestock.

But visiting these rural areas suggests another narrative.

There are shopping centres tenanted by major national chain stores at rural intersections in secluded valleys. Building supply stores, some of them part of the world’s largest retail chain, trade seven days a week, their parking areas crowded with seemingly unending queues of bakkies and trucks taking materials far and wide. Late model 4x4 double cabs and luxury German sedans fill large garage forecourts at remote crossroads. A Tupperware regional manager revealed their Thohoyandou and Vhembe branches had increased turnover by 100% per annum since the 2008 economic crash.

Most noticeable are the many large suburban houses and mansions often dominating the rural villages. Mr Tshepo Magabane’s mansion in Bushbuckridge, mentioned in Professor Njabulo Ndebele’s recent article in the Sunday Times 25 August 2014, may be one of the biggest but is by no means the only one. These rural mansions are found in a wide arc from Makhado to Kokstad. And they are not isolated pinnacles of opulence. For every mansion there are 10, 20 or 50 brick suburban houses, often in the Tuscan style, their designs transplanted from Gauteng’s suburbs.
These observations do not seek to diminish the extent and challenge of rural poverty. For every example of middle class success there will be more instances of struggling single parent or even child headed households dependant on social grants, migrant transfers and/or community generosity. Health and education services require improvement. These problems cannot be ignored. They have been identified and analysed in many forums including the recent 3rd Carnegie Enquiry into Poverty and Inequality (Wilson F. and Cornell V., p vi). They must continue to receive the policy and implementation attention government and the NDP have tried to bring to bear on improving rural conditions. But these challenges are not the subject of this paper.

Rather, it focuses on the new development spreading through these rural areas that does not seem to be featuring in the planning research and policy discourse. The National Development Plan’s (NDP) chapter on rural development sees the main challenge as to “combat the marginalisation of the poor”, (NDP p 195). Yet travelling through many of the rural areas suggests this is not the only dynamic. The NDP’s recommendations focus on strengthening an agricultural economy in a rural context by improving access to resources and supply chains, but many of the rural villages seem, increasingly, to have more in common with urban suburbs.

CNdV Africa has been working in deep rural areas in five South African provinces over the past three years reviewing district and municipal SDFs, precinct plans and human settlement plans and has been noticing these new patterns throughout Limpopo, Mpumalanga and Kwa-Zulu Natal, particularly in the traditional authority areas. They are less obvious in the North West and Eastern Cape traditional authority areas and much less prevalent in the Free State and the Northern and Western Cape where there are fewer rural settlements of this nature.

2. PURPOSE OF THIS PAPER

The purpose of this paper is twofold: First, to share observations on development patterns occurring in some of South Africa’s most populous rural areas; and, Secondly, to initiate debate on whether these patterns really are rural development, or whether they are something entirely different, and, therefore, for which the planning profession and other policy makers need to prepare.

3. PRIMARY FOCUS AREAS OF THIS PAPER

This paper focusses on three areas:

First; it reviews settlement patterns and not other land use patterns. There are many land use dynamics currently playing themselves out in South Africa’s rural areas at present. They include mining, bio-diversity conservation areas, tourism and land reform where there generally is growth. Agriculture and the conservation of pristine scenic landscapes seem to be in decline. These activities all impact on land use patterns one way or the other, some having both negative and positive impacts. For example, PGM mining around Burgersfort and Steelpoort contributes to both land degradation, and secondary and tertiary sector economic development and job creation and, likely, also socio-economic differentiation and inequality.

However, although these other land use trends and their remedies are extremely important they are not the focus of this paper.

Secondly, it suggests that the settlement trends have advanced to the extent that they need to be explicitly addressed in the policy discourse; and,
Thirdly, it makes some suggestions regarding the possible implications of these patterns in order to stimulate thinking about how they might be addressed.

4. PATTERNS OBSERVED …

This section describes these patterns as they appear in plan form on the ground and in three dimensions.

- On the ground:

4.1 Remnants of organic rural settlements “rings and circles”

The familiar settlement pattern of homesteads comprising rooms open to the sky or enclosed by rondavels, within fenced or hedged kraals, organically scattered on flatter but non arable land between the valley bottoms and the steeper veld covered hill and mountain slopes still occurs in the more remote rural areas. This pattern somehow escaped the “betterment schemes” imposed in the more accessible valleys.

Security of tenure is achieved through verbal agreement at stakeholder meetings presided over by traditional leadership.

4.2 “Betterment” schemes – “a life of squares”

This pattern that began in the 1930s divided traditional authority areas into three distinct land use zones; residential, arable and grazing. Households were then forced into the residential zones.¹ These comprised symmetrical grids of 2 000m² to 2 500m² residential garden plots. They continue to be the dominant settlement pattern in most traditional authority rural areas.

Tenure to these plots continues to be secured by a combination of verbal agreement with traditional elders and Permission to Occupy (PTO) certificates. Although the legal status of PTOs fell away many years ago they continue to be regarded as proof of ownership.
4.3 General Plan townships – “the ubiquitous Blue Book”

The 1990s saw sporadic efforts to create a more formal urban pattern in rural areas capable of freehold title and conventional urban services, including in traditional authority jurisdictions. This resulted in often isolated formal General Plans being approved and fully or partially developed, mainly near rural village centres. Plot sizes were much smaller than the betterment schemes, similar to large low density suburban township plots of approximately 600m$^2$. More recently, General Plans to accommodate RDP schemes have also been developed in rural areas, also often on an ad-hoc basis but with smaller plot sizes, approximately 250m$^2$.

Security of tenure in the General Plan schemes was intended to be completely modernised, with private plots suitable for freehold transfer with title deeds to be issued to residents.

- **In three dimensions …**

4.4 The mansions

These are found throughout the areas concerned, often in the most unexpected places. My favourite is shown in Figure 6. It abuts the R37 between Polokwane and Burgersfort. I like to show it to people when they complain at dinner parties about how things are not changing in South Africa. They are always astonished and quiet afterwards.
4.5 Suburbia

Underpinning the pyramid surmounted by the mansions is the conversion of the rondavels and kraals that used to occupy the large plots of the betterment schemes to suburban houses. In many areas the only traditional dwellings still apparent are the kgotla or ibunga meeting rooms in which the family gathers from time to time, often from all over the country, to discuss important issues. It is interesting to note that in some villages in the Eastern Cape this is often the only building on an otherwise vacant plot. The fact that families whose members mostly reside in faraway urban settlements see fit to make this permanent investment in bricks and mortar to fulfil an important family functions suggests that they have not altogether turned their backs on the rural areas, and, could return, even if just for retirement.

The important implication for urban planners is that in many instances large parts of these rural villages have become, or are in the process of becoming, low density suburbs. Figure 10 compares Constantia in Cape Town with Tshaulu village in Limpopo. The similarities are clear.
4.6 Shopping centres, strip malls and informal trading.

A characteristic pattern of South African suburbia is that it is interspersed with various sized shopping centres and filling stations. It may appear incongruous to those who expect rural retail to comprise roadside informal markets selling local agricultural produce and crafts but this same pattern is in full swing in the rural areas.

Shopping opportunities range from the expected roadside stalls selling local produce, through strip shopping centres, often erected by local business people, to large neighbourhood shopping malls with national chain store tenants and are developed by external corporate property developers, often in consortium with local business people.

These centres are usually located at strategic intersections on the rural arterial road network and often outside of any formal spatial development framework or zoning scheme guidance. Sometimes filling stations are embedded in existing business strips, abutting shopping centres,

4.7 Rapidly growing rural towns

Many rural towns in this northern and eastern development arc are growing, sometimes exponentially. Examples include Musina, Makhado, Thohoyandou, Giyani and smaller centres like Elim in Limpopo; Engcobo, Cofimvaba and Butterworth in the Eastern Cape and even towns like Zastron in the Free State, see Figures 13 and 14. This latter town’s growth of large retail stores appears difficult to explain until one discovers it is actually serving about 250,000 people in the Eastern Cape around Lady Frere and another 250,000 people in Lesotho.

Figure 11 Shopping Centre, Makhado Village, R523, Limpopo

Figure 12 Engcobo Main Road, Eastern Cape (source: Google Earth, 2014)

Figure 13 Main Road, Giyani, Limpopo (source: Google Earth, 2014)

Figure 14 Cofimvaba, Eastern Cape (source: Google Earth, 2014)
5 REASONS FOR THESE PATTERNS

These patterns are an amalgam of outdated planning paradigms and present day aspirational and cultural forces. Some of them include:

5.1 Previous planning constructs

The betterment scheme villages had two functions; a neat land use pattern that clearly demarcated residential, arable fields and grazing camps in a futile effort to improve rural carrying capacities in the face of the populations being relocated back to them, and to break up the traditional kinship and territorial traditional land use allocation systems.

The more recent “blue book” township layouts stem from the South African town planning practise belief that this is the only form in which other perceived benefits of development, namely; freehold title, easy passage of motor vehicle traffic and, eventually, full urban reticulated services, can be delivered. These suburban layouts are often dropped onto the rural landscape and poorly integrated with their context.

5.2 Homecoming and making good

It seems that urban migrants who have made good are returning to their rural origins and display the trappings of their success. This process and its scale does not seem to have been anticipated by planners, demographers and policy researchers and makers. Nevertheless, it would appear that for many urban dwellers their rural origins will continue to be important in their lives for the following reasons:

- retirement;
- maintaining family ties – in part achieved through migrant work remittances;
- weekend or second home getaway during the economically active years of one’s life;
- spiritual and cultural relationships; and,
- education. The rural school environment is seen as preferable to that of the city with its social risks of crime and drugs and a weakened relationship with family and cultural values.

There are also less obvious factors leading to the increased building in rural areas such as the need for:

- a separate house from the family home for newlyweds when visiting parents and relatives in the rural areas; and,
- a room (kgotla or ibunga) on the rural plot for family meetings from time to time.

Under these circumstances it seems that rural residential development pressures are likely to continue for another two decades or one or two generations at least.

5.3 Social grants and remittances from urban areas

The processes described above cannot happen without funding. One of South Africa’s post democracy success stories has been the social grant rollout. While there are debates as to whether this has also funded anti-social activities such as alcohol, drugs and gambling it is clear that this funding, as well as migrant labour remittances, have fuelled rural retail, small business development and construction growth.
6 IMPACTS

The emerging settlement form appears to be that of low density suburbia sprawling over many hundreds of kilometres.

Is this a reasonable description?

The two main formalised layout patterns and their densities dominating the rural areas are:

- the betterment schemes of 2000 – 2500m² (gross 2 to 3 dwelling units per hectare); and,
- slightly higher density but still very suburban formally approved township schemes on General Plans with an average plot size of 650m² – (approximately gross 10 dwelling units per hectare).

There are also occasional RDP housing schemes on General Plans in rural locations with average plots sizes between 250 and 300m² (gross densities of 20 to 25 dwelling units per hectare).

These density ranges are more suburban than rural which are commonly considered to be one dwelling unit per hectare and less. Therefore, it would seem reasonable to contend that suburbia is becoming the dominant rural settlement typology.

What, then, are the impacts of widespread suburbia taking over the rural areas?

6.1 Increasing the need to travel

The need to travel long distances is one of the major challenges of suburbia.

Cheap oil and automobiles facilitated its original development in the US post world war II. Suburbia results in the decline of a local productive or subsistence economy rooted in easily available agricultural and water resources. These are replaced by long retail supply chains, long piped service networks and long commutes to work and business opportunities. These patterns can be seen taking to start hold in the rural areas. Fewer activities remain within comfortable walking distance (1km) from where people live except possibly for rural primary schools. Increasing centralisation of retail and community facilities to a few highly accessible nodes requires longer and longer travel distances. Already an intensification of retail activity can be seen along rural arterial routes that are increasingly serviced by public transport, mainly mini-bus taxis. Private car traffic and public transport is becoming more and more necessary, see Figures 15 and 16.

![Figure 15: Roadside car wash and tavern, Greater Tubatse](image1.png)

![Figure 16: Rural bus stop, Greater Tubatse](image2.png)

Possible Remedies:

- Transport planning: redesigning rural arterial roads as public and non-motorised transport routes with their shoulders converted to cycle routes. Trips of up to 30kms can be relatively accessible for cyclists depending on the gradient of the terrain; and,
• Land Use Planning: transit oriented development (ToD), bicycle oriented development (BoD) and pedestrian oriented development (PoD) are likely to have relevance in this new development context.

6.2 Depletion of natural and agricultural resource base

Covering the landscape with low density urban development and the move from a production to consumption economy are two forces, one spatial and one economic, that deplete the natural and agricultural resource base. This occurs first, because these resources are no longer valued as means of subsistence and production as they once were, and, secondly, because they are physically converted to other uses, and therefore, largely destroyed. Scenes like in Figure 17 appear to be on the decrease whereas declining cultivation, see Figure 18 appears to increasingly becoming the norm.

Possible Remedies:

Recently, concerns about food security, access to clean water, increasing transport energy costs and resilience to global climate change have highlighted the need to promote settlement development patterns that protect rather than destroy these resources. These have led to strategies such as:

• compacting settlements so that not only do they use less space but are also more convenient and efficient to travel around;
• implementing development (urban) edges, beyond which agricultural, hydrological and biodiversity resources should be protected, as a land use management tool. Hitherto, urban edges have not been seen as a necessary land use management tool in rural areas because rural settlement was perceived to be so closely integrated with its rural resource base. This relationship is clearly changing and so too will land use management tools need to follow suit; and,
• At the level of the plot, particularly the large plots of the betterment schemes, encouraging use of more compact double storey building forms and leaving as much land area as possible for gardening and storm water attenuation, see Figure 19.
6.3 Demand for urban levels of services over widely spread networks

The housing typologies taking over the rural villages are essentially suburban in nature. In the cities this urban form is individually serviced by long piped water and sewerage pipe networks connected to expensive treatment plants. There is a similar network for electrical services. With the general exception of the more profitable electricity service, these service networks are proving financially unsustainable and management intensive to levels beyond the capacity of an increasing number of municipalities. Extending similar levels of service to these burgeoning rural suburban areas is unlikely to be sustainable judging by the challenges being faced in the more established, more compact historic urban areas.

A further area of concern is bigger and bigger houses with more impermeable roof and paving areas leading to widespread hardening of the landscape. This increases the need for storm water run-off and significantly contributes to flooding hazards, particularly in major abrupt rainfall events for which this belt of the country is well known.
Possible Remedies:
Other service delivery strategies will be necessary. There are three issues to be considered:

First, if the low density urban form is to continue, and it should be acknowledged that this will be difficult to change because of the embedded legacy of the betterment scheme layouts, then different, off-grid, service technologies need to be effectively promoted. These include; rainwater harvesting, grey water recycling, solar hot water cylinders, photovoltaic electricity generation, passive building design and orientation and water wise gardening where gardens are not being used for food production;

Secondly, where possible, the compaction and concentration, particularly of new development, should be encouraged towards existing nodes and the fringes of the rural road reserves, away from river corridors, productive arable land and critical biodiversity areas, see Figure 22.

Figure 20 Off grid bank branch on R37 near Burgersfort, Limpopo;
Figure 21 Rainwater tanks, Kamastone Village, Lukanji LM, Eastern Cape;

Figure 22 Precinct Plan Proposals for Tshidzini, Tshaulu, Thulamela Local Municipality (source: CNdV Africa, 2011)
Thirdly, in regard to storm water management town planning controls such as limiting coverage of all hard surfaces to 50% of a plot or less should also be introduced to reduce the danger of flooding and retain land for residential gardening and food production purposes.

### 6.4 Undermining of scenic quality and tourism potential

There is increasingly widespread concern from National Treasury downwards about the shift of the South African economy from production to consumption. There is also concern about the long term impacts of a widespread social security net undermining entrepreneurship and increasing dependency on the state. This has led to considerable attention being devoted to promoting economic opportunities in addition to poverty alleviation strategies. Economic opportunities in rural areas are largely limited to agriculture, mining, government, wholesale and retail and tourism. The latter opportunity depends on local attractions, mainly found in wilderness landscapes, game farms, cultural and scenic and urban quality. These attractions can be undermined by the widespread growth of suburbia, particularly if landscapes take on the appearance of the city suburbs from which the tourists want to take a break.

If tourism opportunities are considered important in these developing rural areas this suggests the need for some kind of land use and building management to maintain these qualities.

**Possible Remedies:**

- To limit new development areas in scenically important landscapes. This could overlap with the need to protect critical biodiversity areas, fertile agricultural land and river corridors. The protection of sacred sites, often located in areas of outstanding natural beauty and therefore, also with cultural and scenic tourism potential if dealt with appropriately, can also play a part; and,
- To manage building form and appearance. Clearly, attempting to limit new rural buildings to a thatched roof rondavel architecture would be inappropriate and patronising but it has been interesting how in some instances in the Western Cape, even the owners of houses in RDP schemes, for instance Klapmuts and Langebaan, have followed simple building guidelines that appropriately reflect the local built context where these have been easy and inexpensive to implement.

### 7 IMPLICATIONS

At this point the main purpose of this paper has been accomplished, that is to place on the table for debate whether there is a new form of urban growth or, at least, an unappreciated form of growth as suburbs are already present in the large cities, is occurring in the deep rural areas, see Figure 23.
The patterns of development described in this paper appear to be different to what is generally expected in rural areas. This disjuncture is reflected in rural development policy which appears to be designed to address only part of the reality of South Africa’s rural areas, particularly those under traditional control.

Therefore, in conclusion it is useful to list a number of implications which required further research:

7.1 Institutional structures

There are two de facto parallel streams of local government in many rural areas:
- Municipalities; whose planners are supported by DRDLR, and other aspects of municipal management including the IDP which is supported by COGTA and are the main LUMS role players, particularly in the towns, villages and commercial farming areas of the previous municipalities; and,
- Traditional Authorities; also supported COGTA, which play the main LUMS role in tribal areas. Recent legislative and political trends are strengthening the role of traditional authorities.

7.2 Future policy responses

The main significance of all of these patterns is that they appear to be the vanguard of a trend that suggests that not only is urban-rural migration cyclical and not one-way, but the rural origin of this cycle may be more important and attracting more investment than previously thought. This has implications for rural-urban policy bias in a different way from which this concern is traditionally conceptualised, i.e. that rural areas are social-economic basket cases.
where the least resourced are trapped and, therefore, they require large amounts of welfare benefits and investment in agricultural job creation schemes if humanitarian crises are to be avoided. These pro-poor public policy responses remain important but it would seem that policy responses that embrace and manage the challenges and opportunities of rural affluence are also required.

### 7.3 Vision and leadership

A key aspect to a coherent policy response will be the vision and leadership it brings in terms of its view of the circumstances.

There appear to be three options for a vision of the future to guide policy response:

(Anote: the first is not really a vision but reflects the current situation)

One; to continue with ad-hoc responses that reacts to the current development trends underway; or,

Two; the rural villages should become low density suburbs (to which they are already tending towards in many instances) and that the new rural reality is that of a sprawling consumption economy based mostly on externally sourced cash transfers. The servicing model should aspire to full conventional reticulated networks as found in the cities.

Under this vision effectively implementing the NDP recommendations to stimulate a rural productive economy would seem unlikely, however, this needs to be debated;

There should be an inclusive and active pro-approach to land use management that promotes:

- a more compact urban form with high importance placed on the protection of rural and agricultural land so that food security and long term productive water and land resources are protected;
- a completely different service delivery paradigm with the emphasis on sustainable off-grid technologies; and,
- includes a new cooperative planning model where traditional authority officials and municipal officials work together to prepare and implement SDFs and LUMS even-handedly across traditional authority and historic municipal jurisdictions.

### 7.4 Skills and capacity of the planning profession

A recent review of the implementation of SDFs in nine Limpopo local municipalities (DRDLR 2014) suggests that the planning profession:

- Has not properly understood, nor developed, a coherent and effective response to the form and dynamics of the current rural growth trends described above;
- Often finds itself as a bystander reacting to the outcome of LUMS decisions taken by others. Key location decisions are often taken by the traditional authorities; and,
- Needs to develop new ways of ensuring buy-in to SDFs and other LUMS guidance tools.

Here solutions as to how to achieve more widespread participation and publicising of SDF formulation are critical.

**NOTE:**

Whether these decisions are always without merit also requires debate, some can be considered economically quite rational, see Figure 24.
7.5 The Communities’ Own Aspirations

Clearly the current patterns are largely bottom up, driven by community residents acting with the authority of the traditional councils, and, therefore, it can be expected that these patterns are largely aligned with their own aspirations. Building large homes in the rural areas is obviously a source of pride for an increasing number of people. It may be argued that the suburbanisation of the rural areas identified in this paper has emerged on an incremental ad-hoc basis and so there hasn’t been proper reflection of the long term implications of its logical conclusion.

However, the lens through which an arguably more sustainable land use pattern may be viewed by the community should be understood. The betterment schemes were partly an attempt to do this but were understandably resisted, “We didn’t want to be placed on the lines, we wanted to dwell everywhere” (Zondi P., p 152). Care should be taken to ensure that future attempts to achieve sustainable land use planning are not misconstrued as another attempt at oppression.

8. CONCLUSION

Rural development in South Africa appears to be becoming a process of suburbanisation in many instances. This process is being deepened by steadily improving levels of facilities, including high schools, tarred roads, neighbourhood shopping centres, strip malls, and large service stations. Indeed, often when this doesn’t happen or is too slow, service delivery protests result.

If the type of rural development envisaged in the NDP was really happening then agricultural activity should be intensifying, e.g. more lands being ploughed, agricultural distribution channels strengthening, co-ops, warehouses, plant, being constructed etc. as well as more mining and tourism. However, this type of productive investment seems to be on the wane.

The question is… what kind of great places are our rural areas becoming? And, therefore, what then is the long term development vision for these rural areas?

And, if they are, in effect, becoming the suburbs, are we ready for this? Are municipalities ready to manage new Constantias and Bryanstons stretching for many hundreds of kilometres with their

NOTE:
One of the solutions to popularising SDF processes may be to revise the term “SDF”. This term is particularly inaccessible to the general public. A more easily understood term like “master plan” may be more appropriate and the challenge should just be to ensure that the previous concerns around this term such as the rigidity associated with it are appropriately addressed.
likely increase in demands for better quality services, street lights, weekly refuse removal, more shopping centres, education and health facilities and improved transport?

How should we change our institutional structures? Currently, traditional authorities' roles are being strengthened. What kind of practical and/or legal cooperative working relationships can be put in place?

And what of SPLUMA's five principles; spatial sustainability, justice, efficiency, resilience and good administration?

9. REFERENCES

CNdV Africa, 2014. Tshaulu Nodal Point Precinct Development Plan

DRDLR, 2014. Limpopo Province SDF Implementation Audit of Nine Municipalities

Google Earth, 2014

http://www.customcontested.co.za/ - Website of Custom Contested Views and Voices, Centre for Law and Society, Rural Womens Research Programme, University of Cape Town

Interview with Seemole Malapile quoted in Zondi P., “Peasant Struggles of the 1950s: Gamatlala and Zeerust,” in, South African Education Trust, The Road to Democracy in South Africa 1960 – 1970. Betterment schemes began with the Bantu Affairs Department with the passing of the 1936 Land Act in response to the widely reported socio-economic deterioration in the reserves. Their implementation was given added impetus by H Verwoerd’s Native Affairs Department in 1951.

N Ndebele, 31/8/2014. Soweto is taking back her children, Sunday Times


FOOTNOTES

1. This pattern was first implemented in the 1930s as a result of the 1936 Land Act and continued until the 1970s. Further hardship included destocking livestock to achieve sustainable carrying capacity thresholds through expropriation, often without compensation. The most authoritative text on forced removals in South Africa is the Surplus People Project volumes that were published in 1983. According to these volumes "betterment has forcibly removed more people in more places with greater social consequences and provoking more resistance than any other category of forced removal in South Africa" (Vol 2, p110). The specific number of people removed under betterment has not been quantified, but it is clear that it affected more than 1 300 000 South Africans (Vol 1, p5). This is a minimum figure, and a conservative one at that - betterment could have removed up to 2 500 000 South Africans.

2. As part of its extended cabinet Government recently created a Ministry of Small Business Development under Minister Lindiwe Zulu and Deputy Minister Elizabeth Thabethe.
An Assessment of Problems of Public Low Income Housing Provision and the Role of Social Housing in Creating a Great Residential Neighbourhood in Lagos, Nigeria

Abimbola OMOLABI 1, Dr. Pauline ADEBAYO 2

Disciplines of Architecture, Planning and Housing
University of KwaZulu-Natal, Durban, South Africa
1 Email: bimboomolabi@yahoo.com; 2 Email: adebayop@ukzn.ac.za

Abstract

The paper observes that housing is a fundamental aspect of human life, and argues that housing is a key factor in delivering healthy and attractive communities as it serves to define the life space of individuals. Within the context of urban system, it argues that housing is more than mere shelter as it constitutes an aspect of urban infrastructure that makes cities either great or ugly depending on the quality and quantity of housing provided towards meeting the needs of every citizen of a nation irrespective of socio-economic status. It posits that without adequate housing, as depicted by the quality of housing in slum areas which serves as alternative means of accommodation to the low income group, people cannot meet their basic need, thereby making the essence of living in cities beclouded by sense of misery and presenting an ugly cities’ image for such people. The paper examines the housing quality in alternative public low income housing neighbourhood which offers the next option for living outside the informal settlement by the low income group. It highlights the impact of residing in the public low income neighbourhood upon the well-being of residents. The paper utilises welfare and satisfaction concepts as theoretical underpinning for the study. The paper notes that the problems of housing provision for the low income earners who are in a disadvantaged economic position to make effective demand for adequate housing requires that the effort of the government towards housing provision be re-examined. The study therefore assesses the public sector intervention in housing development for low income group in Lagos, Nigeria, since the late 1970s linked with oil boom era. It argues that despite the existence of many policy directives, and unattainable goals statement such as ‘housing for all by the year 2000’ fourteen years after the target year, the problem of inadequate and unaffordable housing for the low income group has not only persisted but has reached a critical state there by making cities ugly places to live in for the group. The paper employs secondary data to the assessment of the past and present low income housing programme performance towards a critical analysis of the factors that are responsible for inadequacies in housing delivery. In an attempt to contribute to the literature on paradigm shift from purely public housing provision through direct construction to other approaches, the paper posits that the identified bottlenecks towards attaining a sustainable housing development that will result in making cities great places for the low income group needs to be addressed adequately. It concludes by proposing social housing for future housing development as the way forward to creating great residential neighbourhoods in cities particularly for the low income in Nigeria within the housing context.

Keywords: Cities; housing affordability, government policy, public housing, social housing

1. INTRODUCTION

As a land of opportunities, the city enjoys the prestige of being the focal point of human activities; the centre of innovation, power, wealth and culture thus making it a great place for people to live in, because of the capacity it has to enable man realise his dreams and expectations. On the other hand, cities are ecosystems which have structures that are patterned in peculiar ways. Thus, with ever
increasing rate of urbanisation, characterised by rural-urban migration, cities could turn out to be an ugly place to live in more so when it is characterised by myriads of environmental, social and economic problems including inadequate infrastructure and services, homelessness, insecurity, poor road conditions, overcrowding, poverty, and inadequate housing among others. The scenario has presented the positive and negative sides in which cities do affect people’s lives and forms the basis of ‘pretty’ and ‘ugly’ faces of cities as presented by (Egunjobi 1997, cited in Samuel, 2008, p. 198).

An important aspect of the cities that contributes to making them great places is housing because it often serves to define the life space of a person. Thus, it is of paramount importance that the relationship between housing, space and cities as great places be examined from multi-disciplinary approach, by research including the investigation of housing delivery mechanism through planning participation (Horrelli, 2004). As an integral part of cities systems that fulfils basic need in which people live, housing constitutes a critical component in social and economic fabric of a nation. As a social unit of space, the importance of living conditions, has been recognised for centuries as a fundamental requirement for health, work efficiency, social-economic standards, productivity, general welfare, development of the individuals and community (Shaw, 2004; Aluko, 2004; Hood, 2005; Nubi, 2008; Ibem and Omole, 2010; Otubu, 2012). Put in a better perspective, Mira et al (2005) states that as a physical setting, the residential environment is critical for human well-being. The reason is that people spend their working time in buildings, and most of their leisure time at home or close by in their neighbourhood. This justifies the need to study the role that housing and space play in making cities great places for people to live in.

As a package of services which occupier will like to consume, Agbola (2005) looks at housing as both a product and process. The product perspective sees housing as a residential environment where man seeks shelter, security from crime, comfort and dignity. The definition of crime always forces people to take into account feelings of security which does not only relate to occurrence of crime, but concerns anxiety due to the existence and possibility of crime. The notion of fear is an important social problem and a common issue in cities. It creates what can be called more vulnerable population. Thus, within the context of layout of a residential neighbourhood, the fear of crime can go a long way to make cities great places or ugly places. This is in line with Apak et al (2005) opinion that preferring secure places and conversely avoiding potential crime areas are some socio-behavioural phenomena that tend to decrease social interaction, social control and healthy neighbour relations.

The process perspective which appears very complex transcends issues such as dwelling design, provision, maintenance and neighbourhood services and regeneration. Indeed, the emotional, social and economic importance of housing reinforces the ever increasing demand for housing to the extent that it outstretches supply in the developing countries. In Nigeria, the supply of new housing has not been able to match the demand as a result of the ill preparation of the country to cope with the consequences of rapid population growth and unmanaged urbanisation. In spite of the significance of housing to individual’s well-being, and national development, the problems of housing in Nigeria are generally multi-dimensional. The National Technical Report on Housing (2009) remarked that little is understood about housing sector and most often, housing is neglected in Nigeria. By implication, the scenario is worrisome because the existence of cities and megacities implies large concentrations of population, facilities and services. However, in a situation where little progress has been made in the provision of housing for the generality of Nigerians and the low income group in particular gives an impression of ugly cities. The severity of the housing problems in cities for the urban poor is depicted by Olotuah and Bobadoye’s (2009) remark that the inadequacy of housing particularly for the urban poor manifests in a situation where 60% of Nigerians are considered houseless, while 75% of the urban dwellers live in crowded housing, self-made temporary structure, slums and squatter settlements where they exert unprecedented pressure on deteriorating social services. This mode of housing for the urban poor presents faces of cities as ugly and unsightly. The impression of ugly side of cities is created by the stigma attached to living in such poor quality residential neighbourhood and it corroborates Agbola and Kassim, (2007) viewpoint that without good management, cities become dangerous, ugly and unhealthy. Besides, Nubi,( 2002) remarked that contribution of housing to the national economy has been found to be so little despite all the previous attempts made in terms of several studies and programme to ameliorate the problem of inadequate housing in the country through public and private
sectors housing. The reason is that relatively lower percentage of budget allocation has been allocated to housing when compared with other sectors (Okoro, 2009). The study therefore examines other options that can promote better strategy of housing provision for the low income group within the aim and objectives set below.

2. OBJECTIVES/RESEARCH QUESTIONS

The study aims to use the design of future low income residential neighbourhood as a channel of creating great places in Lagos megacity towards enhancing users’ residential satisfaction. The objectives formulated are; examining why the public low income housing provision in Nigeria have not been able to cope with ever increasing demand for housing in view of the social responsibility bestowed on government to facilitate access of the low income group to decent, affordable and adequate housing. It attempts to profile the characteristics of the neighbourhoods’ inhabited by urban poor in view of the inadequacy of public low income housing and recommend housing policy in light of this information. In an attempt to achieve the objectives the following research questions are generated: Who are the low income earners? What are the factors responsible for inadequate housing provision for this group in Nigeria as a developing country? What are the consequences of inhabiting a deteriorating residential neighbourhood? What are the efforts made by the Lagos State government to provide housing for the low income group? In what ways will the social housing scheme promote the creation of a great neighbourhood in an urban system in a rapidly urbanising world?

3.0. LITERATURE REVIEW

3.1 Need For Low Income Housing.

Housing is paramount to human existence and characteristic of its process of provision is the construction of a large number of residential buildings on a permanent basis with adequate physical infrastructure, and social services in planned decent, safe and sanitary neighbourhood to meet the basic and special needs of a population (Jacob and Ofem, 2007). Today like in many developing countries, Nigeria urban centres are plagued by huge housing deficit compounded by many factors. Table 1 depicts housing deficit in Nigeria for all categories of income. In view of the ever increasing population that characterises the country’s urbanisation, Okupe (2002), cited in Bala (2010) described the nature of population growth as one where the proportion of the Nigerian population living in urban centers has increased phenomenally over the years. While only 7% of Nigerians lived in urban centers in the 1930s, and 10% in 1950s, by 1970, 1980 and 1990, 20%, 27% and 35% lived in the cities respectively. Today, over 40% of Nigerians now live in urban centers of varying sizes. The incidence of this population in urban centers has created severe housing problems, which result in overcrowding in inadequate dwellings, and in a situation in which 60% of Nigerians can be said to be “houseless persons”.

Table 1. Estimated housing needs in Nigeria between the Periods of 1990 and 2020

<table>
<thead>
<tr>
<th>Income group</th>
<th>1990</th>
<th>2000</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-income</td>
<td>8,413,980</td>
<td>14,372,293</td>
<td>39,989286</td>
</tr>
<tr>
<td>Medium-income</td>
<td>7,770,005</td>
<td>13,273,291</td>
<td>33,573,900</td>
</tr>
<tr>
<td>High-income</td>
<td>7,624,230</td>
<td>12,419,068</td>
<td>28,548,633</td>
</tr>
</tbody>
</table>


The spatial products of housing problem in the country which are visible, complex and enormous manifest in such problems as poor urban living condition, and deplorable residential neighbourhood with adverse effect on people’s health (FGN, 1991; Akinmoladun & Oluwoye, 2007; Ademiluyi & Raji, 2008). The housing conditions illustrated in plates 1-6 does not portray a great city image in a globalizing world. From the illustrations, it is possible to infer that through the housing quality, a city can display its ugly side which needs to be reversed particularly for the low income group who are the economically disadvantaged member of the society.
Plate 1. Depicts the general view of housing type in Otto slum

Source: Field observation, 2014

Plate 2 Clustered buildings without adequate setback or air space in Otto

Source: Field observation 2014

Plate 3 Depicts nature of building materials and open drainage in the middle of an untarred road in Otto
Source: Field observation, 2014

Plate 4 Showing method of refuse disposal in Otto

Source: Field observation, 2014

Plate 5. Depicts unhygienic residential environment in Otto
The definition of low income group according to FGN (2011) is all employees and self-employed persons whose annual income is N216, 000 naira or $1,350 dollars and below, an amount that is equivalent to salary grade of 01-06 within the public service. Interestingly, the national minimum wage is N18, 000 naira per month (Leesine, 2011; Adedeji and Olotuah, 2012). This observation is corroborated by UN Human Development Report (2009) which remarked that 83.9% of Nigerians live below $2.00 a day. Today, it has been observed that the GDP per capital is $1,725, while the International Monetary Fund affirms that the inequality has worsened with 68% of Nigerians living on less than $1.25 a day, compared with 63% in 2004. The situation is such that the urban poor cannot afford decent accommodation and pay the market rent rates and other incidental expenses to most landlords, who are pressed to get returns on their housing investments as soon as possible. The World Bank observation that the country needs to produce about 720,000 units annually for the next 20 years to solve the problems indicates the enormity of the housing problem in the country. Similarly, Nigeria
2020 development strategy includes a vision to build 10,398,650 housing units between 2012 and 2020 (Housing Finance year book, 2012). Like any other past housing programmes, the issue is not provision per se, but affordability by the targeted group. Concern of affordability regarding the low income group plight is expressed in many studies and its adverse effect on the quality of life of people (Olotuah and Bobadoye, 2009; Jaiyeoba, 2012; Fadairo & Bashiru 2012).

In the same vein, available statistics revealed the deficiency in housing stock in Lagos. It shows that out of the 1.4 million housing needs that were recommended by the master plan for metropolitan Lagos between 1980 and 2000 only 140,000 units were satisfied. As at 2011, only 1.2 million houses are accommodating 17 million populations and the deficit is so huge that the state requires annual housing needs of 224,000 units per annum for the next fifteen years (The Lagos Housing Market, 2009; Abosede, 2006; Ugbdogaga, 2011). This situation has its implications on the quality of life of people. The situation is likely to persist unless there is a change of trend in the nature of housing provision for the people with particular reference to the low income group. Table 2 indicates the housing demand for the different categories of income group in Lagos.

<table>
<thead>
<tr>
<th>Annual Income Level</th>
<th>Income range (Million Naira)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Less than 0.5</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>0.5-2</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>2.1-5</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>5.1-10</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>10.1-25</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Above 25</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Home Ownership Status</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Own more than one house</td>
<td>13</td>
</tr>
<tr>
<td>Owns one house</td>
<td>19</td>
</tr>
<tr>
<td>Tenants</td>
<td>68</td>
</tr>
</tbody>
</table>

Source: The state of Lagos Housing Market, 2009 cited in Onaleye, 2014

This unfortunate situation creates deteriorating environment within the inner city and at the peripheral parts of the metropolis to the extent that Morka (2007) points out that two-thirds of the population of Lagos lives in slums and informal settlements scattered around the city. Indeed, the extent of the housing inadequacy in Lagos is grievous, and the inadequacies are far-reaching. It is worthy of note that even those households with shelter are often subjected to inhabiting woefully deficient structures as demonstrated in the multiplication of slums from 42 in 1985 to over 100 as at January 2010 (Oshodi, 2010). The low income earners who are subjected to poverty are dominant in Lagos, and always eke out a living by engaging in informal economic activities which encompass a wide range of small-scale. They are fond of transforming the city to meet their needs, often in conflict with official laws and plans. To this end, the existent slum of condition described and depicted previously in plates 1 to 6 above does not present Lagos an emerging megacity as a great place.

Interestingly, Lagos State government has made attempts to ameliorate the housing problems through policies, strategies and programmes. These strategies include slum upgrading and urban renewal as well as construction of new dwelling units for the various categories of urban dwellers. For instance, towards the improvement of blighted areas in Lagos, Olokesusi, (2011) reported that recently, the World Bank in partnership with the government has disbursed US$200 million as takeoff grant for revitalisation of the slum areas. Despite the various attempts, success in terms of the provision of adequate, decent and affordable housing units for the low income group remains elusive. This scenario gives a source of concern for the need to create great cities within the housing sector context. For instance, even where the demolition of ugly site is making way as in the case of the slum area of Makoko for the construction of more than 1,000 one-to two-bedroom apartments (Businessday, February 13, 2014) reported that the cost will be beyond the means of Nigerians.
3.2 Factors Responsible for Low Income Housing Deficiencies in Lagos

Urbanisation is a global phenomenon which the trend has manifested in favour of population concentration in urban centres. Lagos, which epitomises the most notorious example of urban growth in the country, has its population shot up from 500 people in 1800 to 5.686 million in 1991, with its megacity status, the population is now 17 million, and the future estimates of 25 million by 2015 making it the third largest megacity in the world. Currently, spatial development of Lagos revealed that it grew from a village seaport with an area of 3.97 km² in 1861 to spatial expansion of 271.20 km² in 1976 to 3577 km² in 2005. The metropolitan Lagos area which covers 37% land mass of Lagos hosts about 85% of the population resulting in a population density of 20,000 per km² (Lagos Housing market, 2009; Brown and Kristiansen, 2009; Ogunleye and Alo, 2011; Filani, 2012; Omolabi, 2012). This statistics in no doubt is high. However, as the scale of urbanisation increases, the task of meeting the housing demand for the low income group persists. Studies by Adelekan, 2009 cited in Ngoma (2010), Agbola and Agunbiade (2010) and Olokesusi (2011) have revealed that in Lagos, 75% of the residents typical slums condition mentioned previously are living in one room households with a density of 4.6 persons per room. This does not present, the Megacity a great place.

Poverty is another critical determinant factor responsible for inadequate housing for the low income group. Owgunike 1991 cited in Aluko (2010) defined poverty as a household inability to provide sufficient income to satisfy its shelter. An illustration of a comparative analysis of per capital income of other countries with that of Nigeria places her at a disadvantaged. For instance, while the per capital income of $10,291; $5,965; $46,432, and $43654 have been observed for South Africa, Botswana, America and Sweden respectively, Nigeria per capital income is estimated at $2,15 (Olotuah, 2009). In a situation where about 70.8% earn less than $2.00 a day, affordable housing would continue to be a mirage among the low income group. This situation is aggravated by high cost of building materials, high rent, limited land supply and high land prices and acquisition obstacles. These factors jeopardise accessibility of the low income group to decent and affordable housing.

Housing affordability is directly linked with income. It is an essential component of sustainable urban development, and what constitutes affordability is defined by income of the population as that which costs no more than 30% of the income of the occupant household. It is concerned with securing some given standards of housing or different standards at a price or rent which does not impose an unreasonable burden on household incomes (Malpezzi et. al, 1985; Macleannan and Williams, 1990; Andrews, 1998). Thus, affordability is an issue of absolute poverty in that it embraces those households that could not afford even the minimum available housing standard. In this regard, Bichi (2002) notes that the low income earners require initiatives to some forms of assistance. Following the relatively poor levels of housing and access to housing by the low income group in Nigeria, housing finance is considered as one initiative that can help the low income earners pay for and gain access to affordable shelter that is adequate and affordable.

Housing finance is a tool that is used to pay for housing, and technically, it is the actual money or capital fund for housing or real estate development without prejudice to its source, management, procurement, and utilisation. The role of housing finance is to make adequate housing affordable in the same way informality is (UN, 2011). In the implementation of a successful housing provision process, availability of finance and adequate man power are vital determining factors. In Nigeria, housing is typically financed through a number of institutional sources that include private (formal and informal sources); as well as public sources including formal sources such as primary mortgage banks, merchant banks, insurance companies, consumer credit society as well as personal savings loans from money lenders, cooperatives among others. These sources constitute the surest and realistic traditional way of accumulating savings towards housing ownership for occupation or rental. However, mobilisation of funds from this source is inadequate and is being hampered by complexity of economic activities such as poor funding, high mortgage interest, hyper inflation rate that affects high cost of building materials and construction cost (Aluko, 2004; Housing Finance year book, 2012). All these factors undermine the households’ affordability and access to mortgage finance. This is in addition to poor product design.
which fails to meet the affordability constraints of the majority of low income group. Thus, it could be
deduced that the inadequate quality and quantity of housing in Lagos metropolis results from poor
financing, compounded by inability of the financial institutions including the primary mortgage
institutions and housing corporations drive to effectively mobilize resources, finance, land and man
power for low-income housing (Onibokun, 1990; Agbola, 2004; Kuye, 2007; Akinmoladun & Oluwoye,
ibid). The tendency is for the majority to continue to live in poor housing living conditions.

Poor housing units, inaccessibility to one or more of better living conditions result in a ‘slum lifestyle’
and these often make the inhabitants vulnerable to disaster and destruction because the poor building
materials cannot withstand stormy winds or heavy rainfall. The people inhabiting such unwholesome
living residential neighbourhood become endangered to greater risk of disaster as a result of their
vulnerability to the environment in which they live (Vanguard, January, 11, 2014). However,
government has been responding to the housing needs of low income group in Lagos. Efforts of
government are examined in the next section.

3.3 Critical Review of Government Intervention on Housing Provision for Low Income in Lagos

3.3.1 Evolution and Theoretical Explanations for Public Low Income Housing.

Historically, publicly provided housing started long time before industrial revolution (Macey, 1973). It
was a strategy adopted as a response to housing problems that bedevilled cities in England in the 16th
century. In Nigeria, the first attempt in public intervention housing provision was during the colonial
period following the bubonic plague of 1928-1929. The plague led to the establishment of Lagos
Executive Development Board (LEDB) in 1929 which was charged with the responsibility of planning
and development of capital city of Lagos. It planned the layout of Ebute-Metta, and the housing scheme
had only civil servants as its beneficiaries (Bala and Bustani, 2011). The second attempt of government
intervention resulted from workers strike of 1945 which emphasised the problem of housing shortage,
and reified further government commitment to housing. The third attempt derived from the need to
improve the living and housing conditions of people following the inevitable independence of 1960.
This preparation resulted in the slum clearance of central Lagos in 1955 and the re-location of residents
to famous Surulere housing scheme, marking the start of government housing development in the
country (Aluko, 2004).

The theoretical explanation that justifies the government intervention in housing hinges on the
economic theory and productivity theories. The economic theory rests on allocative inefficiency of the
private housing market. The theory posits that both consumers and producers in the market strive to
achieve optimality by either deriving the maximum utility from their budget or the maximum profit for
their transaction based on the assumption of perfect understanding of housing market which is hardly
met in the real world. Thus, government intervenes in housing delivery to correct market imperfections
as well as provide any ‘good’ which is considered a ‘merit good’ in public interest. Arguably, housing
is a merit good and its provision is in public interest based on the understanding that a citizen of a nation
whether rich or poor is entitled to a minimum level of housing consumption (Agbola, 2004).

The productivity theory postulates that increased work productivity and improved health are associated
with good housing investment. Hence, there is a positive correlation between good dwellings and
improved state of health of dwellers which stimulates government intervention in housing provision as
a good (Agbola et al, 2007). Over the years, the Nigeria government in general and Lagos State
government in particular always adopt public housing programme as the method to correct housing
market inefficiency, and ensure a minimum standard of shelter for all the people of Nigeria. The
question is to what extent have the actions of government solved the housing problems of low income
group?

3.3.2 Achievements and Failures of Public Low Income Housing Provision

International Convention Centre (ICC), Durban, South Africa
ISBN: 978-0-86970-781-4
407
The spatial consequences of the rapid rate of urbanisation from factors of migration and its socio-economic implications have been of interest to policy makers and system analysts. Moreover, as housing sector is, always the first to be hit by the influx of people to the urban centre (Olatubara, 2008). What is of particular interest to system analysts is the observation that housing delivery has often fallen short of urban growth and housing need. In most cases, when this occurs, the most spontaneous response to housing shortage in most developing countries is offered by private sector. In Nigeria, the private sector contributes over 80% of the existing housing stock (Olatubosun, 2007). However, most of the units provided by the private sector are usually out of reach of the low income households which explains the involvement of the public sector in housing delivery. Two approaches that explained public housing provision according to (Power, 1993) include government provided and government sponsored housing. The former is concerned with direct production and management and allocation of housing on a large scale, using various methods by local authority. The approach is characterised by the rent that is far from the market rent. On the other hand, the latter approach is nearer the market rents and managed by various kinds of landlords such as housing association and cooperatives. Such institutions often carry out the construction, allocation and management of the units.

In Nigeria, perhaps low priority has been accorded to housing relative to overall scheme of national development. This is because low-cost housing is considered to be resource absorbing rather than productive. Thus often times, the least solution arrive at by the government’s interpretation of ‘decent’ housing leads to the provision of housing units which are usually out of the reach of low income earners. In Lagos, various succeeding governments have been challenged by the need to provide adequate and affordable low cost housing since 1955 up till now to match with demand. The Lagos Executive Development Board which addressed the bubonic plague that emanated from slum which ravaged the city of Lagos provided only 4,502 housing units in 17 years between 1955 and 1972, whereas population escalated from 1.2 million to 3.0 million in 1972 (Adedokun, 1982; cited in Akinmoladun and Oluwoye, 2007). Other agencies that have been involved in housing delivery within Lagos Metropolis among others include Lagos State Development and Property Corporation(LSDPC), Lagos State Ministry of Housing, Federal Housing Authority (FHA) Federal Ministry of Housing and Urban development, Lagos State Building Investment Corporation (Abosede, 2006). The LSDPC, charged with the responsibilities of the low income housing provision have contributed to the low income housing stock in the metropolis. Olokesusi (2011) remarked that as at 2006, LSDPC has built a total number of 20,572 units in 40 different locations that include low, medium and high incomes. Among these categories include 23 estates in the low income group with 14,972 housing units, 3,878 and 1,722 housing units for medium and upper income groups respectively (see table 3).

Table 3. Showing the total number of public housing units in Lagos Metropolis.

<table>
<thead>
<tr>
<th>Income category</th>
<th>Number of estates</th>
<th>Number of housing units</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>6</td>
<td>1,722</td>
</tr>
<tr>
<td>Medium</td>
<td>11</td>
<td>3,878</td>
</tr>
<tr>
<td>Low</td>
<td>23</td>
<td>14,972</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
<td>20,572</td>
</tr>
</tbody>
</table>

Source, Jiboye, 2010, Olokesusi, 2011

The figures in table 3 above suggest that more low income houses were provided than any other types. Nevertheless, a major challenge that has confronted the method of allocation of these units is that it is somehow unfavourable to the target group as the units often end up in the hands of the rich who have capacity to purchase them and who in turn let the dwelling units out to the poor at exorbitant prices (Omolabi, et al 2012). Table 4 below indicates the low income residential estates provided by LSDPC and their location.
Table 4. Residential housing estates and number of low income housing units by LSDPC.

<table>
<thead>
<tr>
<th>Location of Scheme</th>
<th>Local Government Area</th>
<th>Total Number of Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abesan</td>
<td>Alimosho</td>
<td>4272</td>
</tr>
<tr>
<td>Abule-nla</td>
<td>Lagos Mainland</td>
<td>90</td>
</tr>
<tr>
<td>Agarawu</td>
<td>Lagos Island</td>
<td>18</td>
</tr>
<tr>
<td>Akerele</td>
<td>Surulere</td>
<td>18</td>
</tr>
<tr>
<td>Amuwo-odofin</td>
<td>Amuwo-odofin</td>
<td>2068</td>
</tr>
<tr>
<td>Anikantamo</td>
<td>Lagos Island</td>
<td>714</td>
</tr>
<tr>
<td>Badagry</td>
<td>Badagry</td>
<td>6</td>
</tr>
<tr>
<td>Bank Oleno</td>
<td>Surulere</td>
<td>36</td>
</tr>
<tr>
<td>Dairy farm</td>
<td>Agege</td>
<td>708</td>
</tr>
<tr>
<td>Epe</td>
<td>Epe</td>
<td>30</td>
</tr>
<tr>
<td>Iba</td>
<td>Ojo</td>
<td>1560</td>
</tr>
<tr>
<td>Ije(Dolphin estate)</td>
<td>Lagos Island</td>
<td>62</td>
</tr>
<tr>
<td>Ikorodu</td>
<td>Ikorodu</td>
<td>78</td>
</tr>
<tr>
<td>Iponri</td>
<td>Lagos Mainland</td>
<td>1002</td>
</tr>
<tr>
<td>Isolo (2 schemes)</td>
<td>Isolo-Oshodi</td>
<td>3632</td>
</tr>
<tr>
<td>Itire</td>
<td>Isolo-Oshodi</td>
<td>42</td>
</tr>
<tr>
<td>Lawanson</td>
<td>Surulere</td>
<td>30</td>
</tr>
<tr>
<td>Oko-oba</td>
<td>Agege</td>
<td>48</td>
</tr>
<tr>
<td>Ojokoro</td>
<td>Agege</td>
<td>5534</td>
</tr>
<tr>
<td>Surulere</td>
<td>Surulere</td>
<td>22</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>14972</strong></td>
</tr>
</tbody>
</table>

Source: LSDPC (2007).

The problem with these housing units is the prices which are too high that they are not affordable to the low income earners. For instance depending on the location of these units, Omolabi, et.al (2012) remarked that a 2 bedroom flat will cost between 2.5 and 6 million naira or $15,625-$375,000.

Aside from the LSDPC, in an attempt to deliver the dividends of democracy to the people, through the Ministry of Housing, the Lagos State Government embarked on housing provision under the Millennium Housing Scheme which the ultimate goal is to ‘provide numerous and affordable houses for teeming masses of Lagos State’. The civilian administration in 1999 proposed to make available 45,000 housing units within the lifetime of the administration. The housing units were meant to be
provided in the rate of 10:20:70 for the high, medium and low income group respectively (Akinmoladun and Oluwoye, 2007; MoH, 2013). Table 5 shows a wide difference between what was promised and what was actually delivered.

Table 5. Total number of housing units completed between 1999 and 2005.

<table>
<thead>
<tr>
<th>Housing Types/Year</th>
<th>Low</th>
<th>Medium</th>
<th>Upper medium</th>
<th>High</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jubilee Housing Scheme 1999</td>
<td>120</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>120</td>
</tr>
<tr>
<td>2000</td>
<td>1507</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1507</td>
</tr>
<tr>
<td>2001</td>
<td>-</td>
<td>912</td>
<td>96</td>
<td>-</td>
<td>1008</td>
</tr>
<tr>
<td>Alliance Housing 2002</td>
<td>454</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>454</td>
</tr>
<tr>
<td>2003</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2004</td>
<td>138</td>
<td>270</td>
<td>1560</td>
<td>-</td>
<td>1830</td>
</tr>
<tr>
<td>2005</td>
<td>-</td>
<td>68</td>
<td>52</td>
<td>64</td>
<td>321</td>
</tr>
<tr>
<td>Total</td>
<td>2219</td>
<td>1250</td>
<td>1708</td>
<td>64</td>
<td>5240</td>
</tr>
</tbody>
</table>

Source: Adapted from Akinmoladun and Oluwoye 2007; MoH 2013

The total units that the administration was able to deliver between 1999 and 2005 is 5240 (11%) of what was initially promised. Indeed, out of the 5240 housing units, 42%, 23.85% and 1.22% are provided for the low, medium and high income groups respectively. The situation is pathetic from the statistical evidence, it was revealed that out of 1,926 housing units built all over the state since 2007, only 104 units are 1 bedroom and 570 units are 2 bedrooms respectively. This is grossly inadequate when viewed within context the housing needs of the low-income population in the state and when compared with the record of the housing provision of the 1980s’. Majority of the low-income households are being housed by private developers who built houses for rent. These houses are often characterized by services and facilities with questionable standard. The problems facing the public low income neighbourhood are enormous and challenging. It is interesting to note that while most of the buildings have been erected more than thirty years ago, they have not been any form of upgrading despite the manifestation in the poor quality of available housing units and the living environment compounded by problems of overcrowding in homes, and overstretched infrastructural facilities and degraded environment neighbourhoods and communities. Plates 7 to 10 show the residential neighbourhood quality of the low income housing units.

Plate 7 Showing the structural condition of the public low income housing units
Source: Field observation, 2014

Plate 8 Showing household effort toward water provision

Source: Field observation, 2014

Plates 9 and 10 Showing the unhygienic environmental quality of the low income housing estate
The Federal Government contribution to housing provision for the low income group leaves much to be desired in Lagos. The first attempt by the Federal Government to intervene in direct housing provision for the low income was enshrined in the third national development plan period (1975-1980). The Federal Government aimed at providing 60,000 residential units mainly for low income and middle income groups throughout the federation. It is worthy of note that at this dispensation, while each state of the country was to be provided with 4,000 each, Lagos was to be provided with 15,000 units under the national housing programme. These units were increased to 202,000 in 1977 comprising of 46,000 units in Lagos, with 8000 units in each of the 17 states and 12,000 in Kaduna State. Available evidence suggests that within the plan period, only 8,500 units were completed in Lagos representing less than 20% of the target (Okoro, 2009).

The 8,500 units provided are not only inadequate, but the need for affordable housing for the low income group increased as existing stock becomes depleted and more people make Lagos their homes. As the social, economic and environmental problems become aggravated, the National Housing Fund (NHF) programme was initiated in 1994 that proposed the production of 121,000 housing units, unfortunately, less than 5% was achieved. (Agbola 1998; Agbola 2005; Raji(880,747),(996,997) remarked that one thing that is evidently clear from the series of government policies aimed at housing delivery efforts is that government and the Nigerian public have not been coping well with the massive backlog of unmet housing need because of various policies summersaults. The result is existence of a gap between the housing supply and demand for the low income group in particular. As an illustration, table 6 below shows the existing gap for housing in Lagos State for 2009. The gap has been on increase, considering the influx of migrants on a daily basis, while the resource available to government is dwindling.

Table 6 Housing gap estimation for Lagos State.

<table>
<thead>
<tr>
<th>Housing Gap Estimation for Lagos State.</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing Demand Estimate(G)</td>
<td>2,172,755</td>
</tr>
<tr>
<td>Housing Supply Projection(A)</td>
<td>1,295,042</td>
</tr>
<tr>
<td>Estimated Housing Gap (G-A)</td>
<td>877,713</td>
</tr>
</tbody>
</table>


The review made earlier suggests that the high hopes, noble pledges, huge sums of money and good will which welcomed the various public intervention programmes seemed not sufficient to forestall the programmes failure. Public housing has not been able to produce enough housing to meet the housing demands of Nigerians in general, and specifically the housing policy has not been favourable to the poor and the low income earners (Taylor, 2000 cited in Makinde, 2014).

In this regard, various authorities have proffered strategies for improving housing delivery in Nigeria. Fasakin (1998) suggested the cooperative housing model, while Oduwayne (1998) advocate for simply land allocation system and Omole (2001) suggested affordable financing model. Other alternative
mechanism of mass production of housing units which is yet to be fully embraced in Nigeria is social housing. Even where previous other mass housing types were built from direct construction, the taste and preferences of the target population are not articulated, sometimes the locations of such housing units are questionable, and available evidence shows the units are invariably transformed (Aduwo, 2011; Ekop, 2012). In addition, the failure to relate the issue of housing development to indigenous technology, realistic building design, material usage, construction methodology, capacity development as well as research development are pertinent factors that explain the poor performance of public low cost housing in Nigeria in general and Lagos in particular (Ogunleye and Awomosu, 2011).

Apparently, from previous discussions that the contribution of the public sector to the low income housing demand is low. This has implication for the need to enhance access to affordable, adequate and decent housing. Thus, the goal and strategy of housing provision for the low income group, has to change. Since the system cannot compel the private sector housing market to produce dwelling units for the low income group for their use, without direct subsidy, the need arises to explore other options towards solving the housing problems of the low income group in Nigeria as a developing country. There is need for a revolutionary strategy involving non-market and non-profit measures. Here lies the need for adoption of social housing strategy and its potential benefit to make the city of Lagos a great place within the context of housing provision for the low income earners. The importance of social housing is realized when attempt is made to differentiate its role within the concept of housing need and demand. In his contribution to the conceptual notion, Golland and Millen (2004) noted that social housing, is usually developed to meet housing ‘need’ that is conventionally associated with a fundamental requirement for housing minimal provision and basic quality standard for the target group.

4. APPROACH AND METHODOLOGY

Data for this study was obtained from secondary source mainly and, supplemented with physical reconnaissance survey for detailed familiarization of the residential neighbourhoods that are germane to this study. Secondary data was collected from existing literature, publications and other research works on related housing issues. Photographs were snapped accordingly in various sites of interest that are related to the housing issues under investigation.

5. RESEARCH FINDINGS

Rather than direct construction of low income housing by government in response to housing inadequacy, it is the opinion of this paper that the concept of social housing is embraced as the way forward towards meeting the housing needs of the low income group. Social housing according to National Housing Policy (2011) is the response by government to the housing challenges of ‘No and Low’ income earners with the possibility of enhancement of the production of such through market forces. It is a subsidized type of housing supported by government to provide accommodation for people with low to moderate incomes. The role of government in this dispensation is the use of subsidy mechanism for its distribution. The concept could be recognised as a means of promoting an equitable and benevolent society as well as restoring the dignity of man by this discharge of government social responsibility to the vast majority of the population who ordinarily would not have been able to afford them. The social housing scheme stabilizes the society and makes the city a great place to live in by freeing it from the insecurity challenges occasioned by homelessness. It could operate on a rental housing basis, owned and managed either by the state or non-profit organizations, or a combination of the two. It is of essence to the plight of the low income earners in Lagos plagued by affordability problem. In this sense, it focuses on affordable housing, community housing or cooperative housing that is either tenant based with subsidies given to an individual household or project based subsidies given to the owner of housing units that must be rented to lower income households at affordable rates; and operated by the government and by sub-contracted private agencies (see plate 11). It gives an illustration of social housing design and layout, depicting the picture of great livable residential neighbourhood. Essentially, the scheme is targeted at the vulnerable group of the society with a view to creating a great, liveable and sustainable urban system. Apparently, the provision of social housing.
constitutes one means of assuring that access to decent housing is not limited by personal resources (Oxley, 2000).

Plate 11 Showing model of a social housing neighbourhood in one of the states in Nigeria

Source Field observation, 2014

5.1 Case for social housing

The case for social housing consideration as a way forward to solving the problem of housing provision for the low income group could be perceived from the context of an analysis of the purposes of housing policy and the causes of housing problems more generally more so, if the housing conditions are inadequate. Perhaps it might be concluded that this is because some households are unable to demand housing of acceptable standard. In this sense, a lack of effective demand due to a given distribution of resources presupposes an existence of a housing problem which should be resolved. Thus, housing policy is expected to be orientated towards the resolution of this problem by having a clear understanding of the term housing need in the face of housing crisis. It is the opinion of this paper that social housing provision is germane to creating great places in cities, and a case is being made for social housing policy with the understanding that the planners have the technical knowhow to bring about large range of interests and factors towards solving the housing crisis for the low income group.

5.2 Recommendation

To make the recommendation of social housing meaningful and pragmatic contextually, the paper is of the opinion that the definition and understanding of the term ‘housing need’ should extend beyond misconception of the difference between demand and supply to a definition that takes housing need to be the quantity of housing that is required to provide accommodation of an agreed minimum standard and above for a population given its size, household composition, age distribution without taking into account the individual household’s ability to pay for the housing assigned to it’ Robinson, 1979, cited in (Oxley, 2000). Thus, definition is more of aggregate housing need that expresses requirement that is quantified using standards of accessibility, availability by condition of supply and by demography and social change of those households to whom housing is not available (Olatubara, 2007). In this regard, what constitutes housing need according to (Aluko, 2004) is the amount or type of housing that is required by a family in order to live a satisfactory life. It may be called ‘decent housing’ which may be regarded as the only housing that is acceptable as it tends to provide adequate shelter for households and produce no negative externalities in terms of adverse effects like crime and health.
Thus, in order to make a great place out of Lagos city, using the social housing policy framework, the premise is the understanding that solving housing crisis for the low income housing group goes beyond simply building but creating successful places and communities in which people want to live. Thus, it is recommended that the housing need should be defined and understood in relation to such terms of design, type, location, fundamental physiological needs and fundamental psychological needs. This is moreover, when Olatubara (2007) viewpoint established the fact that the failure of housing policies, programmes and strategies in most developing countries including Nigeria have been tied to the misunderstanding of what constitutes socially acceptable standards of housing and minimum housing for a household based on influence by the type and ideological leaning of the government.

5.3 Potential benefits of social housing

If the social housing scheme is adopted totally, there are many benefits that will accrue to the society towards making cities great places. These among others include the significant improvement in the well-being of the poor, the needy and other vulnerable groups in the society, particularly in the low income areas where we have the elderly, widows and widowers, the physically challenged, the homeless, and a critical mass of the citizens who fall into this group. The scheme will create a healthy residential neighbourhood for this group in terms of provision of urban services and facilities. The provision of housing units under the scheme will be a sustainable way of reducing the housing deficit in Lagos estimated at 5 million which represents 31% of the estimated national housing deficit of 18 million (Oshodi, 2010). The adoption of the scheme will provide a window of opportunity for government at all levels to demonstrate their commitment to the provision of housing as a social responsibility to the citizenry. In addition, the scheme is capable of facilitating the socio-economic development of the state by unlocking other complementary benefits to the economy in the realm of wealth creation, stimulation of investment flows and value-addition arising from the use of alternative building materials and adoption of home-grown technologies. The strategy will equally guarantee the promotion of housing delivery with secure tenure and facilitates access to funding of social housing from a variety of sources, including social housing financiers, donors, philanthropists, governments and other interested parties. It will lead to enhancement of the quality of life of both the rural and urban population through housing that will meet their needs because of the inclusionary nature of the housing scheme. The scheme will also provide the right channel for infrastructure development in the state as well as serving as an ‘index’ of good governance.

6. RESEARCH CONTRIBUTION

The study contributes in a modest way to present an alternative strategy to the provision of low income housing which hitherto has been through direct construction method and has been a failure. Besides, it contributes to knowledge on how social housing can be a mechanism for enhancing the living condition and the quality of life through great residential neighbourhood creation emerging from housing design and architecture within the framework of space layout.

7. RESEARCH CONCLUDING REMARKS

In conclusion, it could be observed from the previous discussion that a new thinking in the direction of social housing will be a viable solution for low income housing problem in Lagos in particular, and making Lagos an emerging Megacity a great place. This view hinges on the fact that point nine of the ten point-Lagos State Economic and Empowerment Development Strategy (LASEEDS)-agenda of government is on Shelter-Provision with focus on creation of affordable mass housing schemes, that includes development of seven new satellite towns to address high-population-density areas (Filani, 2012). The social housing scheme is recommended as a panacea for solving low income group housing problem because of the great potentials it has in addressing other sectors of national development highlighted above in line with the principle of good governance. In summary, Omolabi (2007) observed that within the context of good governance concept implementation of the policy on social housing scheme will attempt to take cognizance of the understanding of operational definition of social housing scheme as a rental or co-operative housing option for low income persons at a level of
scale and built form which is required by certain institutions operating under specific law to execute and manage social housing projects in designated areas. However, it must be understood that for the scheme to be effective there are barriers which the policy must address including the issue of land in terms of acquisition, compensation, land information system and the funding of infrastructure in the present economic climate. The main goal, of the scheme will be housing provision on a rental tenure option and excludes immediate individual ownership by the residents. It is important that a Social Housing Act is promulgated towards the regulation of the social housing sector. The execution of social housing project must adopt a bottom-up approach, involving community participation, partnership between public, private, Community Base Organisation and strong political will. Furthermore, the social housing can be funded through many sources including banks, philanthropists, and international agencies. Social housing allocation model should not only be on the basis of needs criteria but must be based on the type of housing and locations which consumers desire.

8. RESEARCH LIMITATION

The locations of existing public low income housing in the state are many. Sourcing of information from occupiers of these housing units was difficult as such were considered personal and private hence they were skeptical and unwilling to grant any interview.

9. FURTHER RESEARCH

There is a need for further research on the best form of social housing type that will be ideal for each of the proposed satellite towns that will be widely acceptable to the people with a view to preparing a residential neighbourhood design and layout that will guarantee residential satisfaction taken into cognizance the cultural factors.

10. ACKNOWLEDGEMENT

Tpl. Abimbola, O. and Mr Erinele Adesola are acknowledged for their assistance in the search for literature.

11. REFERENCES


Andrew, O.N.1998, Trends in Supply of Affordable Housing. Meeting America’s Housing Needs (MAHD) ; A Habitat 11 follow-up Project.


Bala , K.and Bustani, S.A.2011, A Review of Housing Delivery Efforts in Nigeria, Department of Building , Faculty of Environmental Design, Ahmadu, Bello University, Zaria.


Federal Republic of Nigeria 1991, National Housing Policy Lagos:


Filani, M. O. 2012, The changing face of Lagos from vision to reform and transformation. Cities without slum.


Mira, R. C. , Uzzell, J. Real, E and Romay, J. 2005, Housing, Space and Quality of Life Ashgate publishing limited.


Olotuah, A.O. 2009, Demystifying the Nigerian urban housing question 53, inauguration lectures of the Federal university of technology Akure, Lagos.


Onaleye, A. 2014, Lagos State: Past housing development policies(Unpublished revised report) Lagos State Ministry of Housing


Raji ,O. 2008’ Public and Private Developer as Agents in Urban Housing Delivery in Sub-Sahara Africa. The situation in Lagos State’. Journal Humanity of Social Sciences vol. 3 no.2 pp143-150

Samuel, F 2008, ‘Urban planning and the quality of Life of Nigerians’ in Tunde Agbola, Olatubara, Bolanle Wahab, Lekan Sanni Ipingbemi (eds) Environmental Planning and Health in Nigeria, Department of Urban and Regional planning, University of Ibadan , Nigeria.


Great African Places: Approach to Spatial Form and Green Spaces

Z.I.Jeeva¹ and Dr. E.J.Cilliers²

¹ PhD Intern
Human Science Research Council
Economic Performance and Development, 0002; zjeeva@hsrc.ac.za

² Senior Lecturer
North-West University, Unit for Environmental Sciences and Management, 2520; juanee.cilliers@nwu.ac.za

Abstract

African cities are often perceived as chaotic and incomprehensible since they have neither the form of a European city nor does their topology follow any perceived principle of rationality or functionality (Vivian, 2009:6). It is largely due to this reason that only three African cities, namely, Port Louis, Cape Town and Johannesburg, fall into the top 100 livable cities in the world, whilst 25 African cities including Lagos, Nairobi and Harare ranked in the bottom of a list of 220 cities (Mercer, 2013). This article argues that these perceptions of Africa do not take into consideration the differences in culture and spatial environment of the various cities, or that rationality and functionality are subjective terms perceived differently by individuals (Lawanson et al. 2013:575, Ling et al. 2007).

The planning environment in Africa is very different from that of Europe and as a collective the priorities and challenges in Africa are also very different. On that point, it is important to realize that there is a shortage of formal zoning plans for many African cities, informal land use activities are prevalent and African cities are not European cities, where for instance, green spaces are a well-defined spatial concept with specific prerequisites and design elements. The difference in terms of application of spatial concepts, urban form and design approaches should not imply that Africa cities are not livable. Upon inspection, the African urban form is found to be a product of the joint action of both formal and informal forces of different social, political and economic sectors, contributing to a unique form of inhabitation. As a result, these cities transpose cultural, racial, socioeconomic, political and ideological norms to create urban centers whose contents and topology is a creative expression of their everyday life (Vivian, 2009:1-7, Mabadu, 2013).

It’s time planners and academics in Africa stop trying to make Africa fit the picture of what we deem as ideal, but rather recognize and capture what makes it the unique place that it is. This paper aims to capture the unique culture and environment that is part of the African reality in an attempt to guide future spatial and green planning for great-African-places.

Keywords: Africa, Spatial Planning, Urban Form, Green Spaces.

1. LIVABLE CITIES

Livable cities are ranked in terms of the living conditions measured within the cities. The focus is on the relationship between people and their everyday urban environments or life-spaces (Pacione, 2005). There is no established theoretical framework or uniform definition of liveability, and the liveability literature consists mainly of empirical studies, which generally involve a direct comparison of a composite measure over different geographic areas (VCEC, 2011:4).

Most livability measures are based on two main concepts: the cost of living and the quality of life. Quality of life measures seem to embrace more of the concept of liveability than pure cost of living measures, as they apply a more holistic approach and include more noneconomic factors. Liveability
and quality of life measures provide some overlapping information, as both measures apply a triple bottom line approach including economic, social and environmental concepts. However, there is an important difference between them. While quality-of-life measures ultimately focus on the characteristics and wellbeing of people living in a given geographic area, liveability measures tend to focus on characteristics of the area and the services the place can offer to residents. Therefore, quality-of-life measures are more likely to be impacted by subjective characteristics of the population which may be beyond the control of policy makers, while liveability measures are more likely to include factors which policy makers are able to influence. In general, liveability measures appear to be more practical from a public policy perspective (VCEC, 2011:5).

Livability as a concept is a determinant of how well the city works for its inhabitants (Southworth, 2007). Upon inspection, the African urban form is found to be a product of the joint action of different social, political and economic sectors, contributing to livability. Some of these sectors act through formal channels of power, while others express themselves informally. As a result, these cities transpose cultural, racial, socioeconomic, political and ideological norms to create urban centers who’s contents and topology is a creative expression of their everyday life, within them (Vivian, 2009:1-7, Mabadu, 2013).

As a result, many African Cities are perceived as chaotic and incomprehensible, since their urban form does not follow any perceived principle of rationality or functionality (Vivian, 2009:6). It is largely due to this reason that only three African cities, namely, Port Louis, Cape Town and Johannesburg, fall into the top 100 livable cities in the world. While 25 African cities, comprising of Lagos, Nairobi, Lusaka, Dakar, Abidjan, Douala, and Harare ranked in the bottom of a list of 220 cities (Mercer, 2013). It can be argued that the above mentioned survey does not take into consideration differences in culture and environment of the various cities or that rationality and functionality are subjective terms, perceived differently by individuals (Lawanson et al. 2013:575, Ling et al. 2007).

2. THE SPATIAL ENVIRONMENT AND URBAN FORM

Lynch (1981) considers five basic dimensions and two meta-criteria for the performance dimensions of the spatial form of a city. These are; how settlement form affects vitality, how settlement form affects human sense, the degree to which the settlement form fits the requirements of people, how able people are to access activities, services etc, and how much control people have over services/ activities/ spaces etc. The two meta-criteria are efficiency (costs etc) and justice (equity etc) (Jones and MacDonald, 2004:4).

Before colonization, Africa had very limited urban traditions, comprising mostly of rural settlements (Baumeister and Knebel, 2009:i). These rural settlements were defined by a complex reality that consisted of polygamous households that herded cattle and lived in impermanent dwellings located on communal land (Grossman and Siddle, 1998:22).

The indigenous city, was founded on two reasons. The first is that they were gathering points for war and the second is that they were centers of commerce (al Najib Brimah, 2008:211). In native culture, spatial structure of settlements is a manifestation of changes in the environment, socio-economic variables and the role of elders in land allocation (Silberfein, 1998:8). These diverse cultural traits translated into the urban form which consisted of two elements: street -liners, which are linear development of medium height, mostly commercial buildings along street network (See Figure 1) and in-fills: which are single story, mainly residential buildings in-between the street network frame (See Figure 2). Together, both elements formed urban zones that demonstrate “village culture”, which fosters intimate and cohesive community and family relationships (Lombard, 2013).

These zones are characterized by an urban culture of mixed zoning of commercial and residential areas, high and low income houses and a combination of building architecture. In these cities, there are no public squares since the street space is utilized for public events, nor is there a distinctive commercial
center (Baumeister and Knebel, 2009:iv). The urban form of Addis Ababa in Ethiopia practically demonstrates this spatial structure (See Figure 3 and 4).

Figure 1: An example of a street liner (Adapted from Baumeister and Knebel, 2009:iii)

Figure 2: An example of a street in-fills (Adapted from Baumeister And Knebel, 2009:iv)

Figure 3: Map of Addis Ababa displaying spatial characteristics of Street Liners and In-fills. (http://growingalibrary.files.wordpress.com)
Between the 1870s and 1900, Africa faced European military invasions, conquest and colonization. By the twentieth century most of Africa, had been colonized by European powers, with the exception of Ethiopia and Liberia (Stilwell, 2002; Iweriebor, 2011). Even though African’s resisted colonization in its various forms, the spatial structure of many of its cities, succumbed to western forms of urban planning. During colonization, African settlements were treated as elements in a geometric grid, analyzed in a quantitative manner (Silberfein, 1998:8).

Most capital cities in Africa, bear the legacy of colonial urban planning, in both social and functional terms. The objective of colonial cities was to increase density and spread national and international markets (Silberfein, 1998:9). The morphology of colonial cities reflected these goals and ideas, in their racially segregated spatial form. (King, 2009:1).

Johannesburg was ranked as the ninety forth most livable city in the world, considered as a world city, and houses the largest population density in South Africa (Mercer, 2013). During the 18th century, Dutch settlers displaced the native population and colonized Johannesburg. Upon colonization, they implemented an Apartheid urban model that would assist them in achieving their spatial outcomes of racial separation (see Figure 5).
Johannesburg’s urban structure has a well defined grid structure, a defined commercial zones and segregated residential areas (See Figure 5, 6 and 7). The colonial side of the city was well built and planned, while the native’s side of town was characterized by lack of planning, poverty, overcrowding and poor sanitation (King, 2009:2). On the outskirts, informal settlements housing new migrants, where created illegally (Watson and Agbola, 2013:5). Parks, roads, railway lines and green open spaces are used to separate the European side of town from the native section of town. Unlike the native urban structure, this urban model is a blue print of European urban model, implemented in a different context, without any regard of native culture and environmental context (King, 2009).
The spatial freedom associated with post colonization, has seen many uptight colonial cities undergo spatial transformation. In many respects, integration is taking place and new distinctive land use pattern are emerging (Jeeva, 2010). In recent years there seems to be a contradiction on the landscape. The once colonial area of the city is becoming Africanised, while the indigenous side of the city is becoming more westernized (O’Connor, 2013:340). In addition, in recent years the occupation profile of these suburbs has changed from racially based to income based. Rich and middle income inhabitants occupy suburbs closer to the CBD, while the poor are still scattered along the periphery of the city (O’Connor, 2013).

The master plans for many African cities were drawn up during a period when current urban population growth rates and poverty levels were not anticipated. These urban plans assumed an orderly and law-abiding population that were willing to comply with zoning and building laws designed for middle-income, car-owning and formally employed families. Before 2005, the realities of land occupation in...
the city bore no resemblance to current realities. For most inhabitants of African cities, outdated planning laws are an irrelevance (Watson and Agbola, 2013:5).

As a result, African cities are highly diverse in their spatial structure. This diversity is reflected in contrasting native and foreign urban traditions. One could say that urbanisation has produced a mosaic on the African urban fabric. A mosaic that expresses the diverse realities that operates within the African space. The pieces of which cross formal and informal practices, influenced by colonial and post-colonial practices, globalization and local conditions, resources, technologies and environmental requirements (Vivian, 2009:6).

Ironically, after independence colonial urban model often remain uncontested in many African cities or has even fostered into a form of modernist city planning. These modernist plans can be found for cities such as Lagos and Nairobi, Kibera, Kigale and Maputo. However, these “formal” plans do not capture the livability or vitality of the cities they represent. Reality on the ground is far from the image portrayed on paper.

3. GREEN SPACES AND THE GREEN PLANNING APPROACH

As a result of the lack of formal zoning plans, land-use regulations and planning control in many African cities, along with the need to provide in basic human needs such as housing, infrastructure and facilities, the “green” agenda was not prioritise in planning approaches. Green planning and the provision of green spaces were in many instances considered a luxury and not a necessity for the African city (Cilliers & Timmermans, 2012). As a result many cities in Africa are witnessing harmful patterns of growth, of land use and of degradation of their physical structures. For example: the green spaces are being occupied by migrants that are accessing the African City, seeking better living conditions (Vivan, 2009:6). Such problems are often accompanied by soil, air, water and waste pollution and destruction of resources (UNHABITAT, 2008). These circumstances combined make the Africa city less attractive to investors and even less livable to foreigners. However, the character and spatial environment of African cities differ to those of European cities, and the development of the concept of green spaces might pose an explanation in this regard why green spaces (as perceived from the European definition) does not function accordingly within the African environment.

Therefore, the sustainability of the continents environment and human life requires, amongst other things, that human settlements in both urban and rural areas are made economically buoyant, socially vibrant and environmentally sound with full respect for cultural, religious, and environmental diversity, to make them more livable to the rest of the world. The answer to these spatial problems will not be found in a Modernist plan, formulated by foreigners, but rather in an African solution.

3.1 Development of green spaces

Turner (1996: 22) states that the first parks were erected when humans barricaded their lands to enclose and protect a certain area. Subsequently, Monarchs erected more extensive barriers to create royal private parks for their families or personal enjoyment. The initial parks that were developed for the use of private enjoyment by royals and their families lead to a more extensive use of the enclosed areas. These parks were developed to be used not only for leisure and private enjoyment, but for hunting purposes and celebrations as well.

During the late half of the 19th century rapid industrialisation was the major focus for developed countries, leading to a rapid growth and expansion of cities. In response, the establishment of public parks and green spaces was motivated by the desire to provide quality urban environments for residents. Furthermore, Greenhalgh & Worpole (1995: 40) claims that at that particular time green spaces and urban parks were regarded as quality environments that urban dwellers mainly used for recreation and leisure purposes. But, one should note that these spaces were not specifically designed or planned, they were simply placed on vacant or derelict land which had not been developed yet (Greenhalgh & Worpole, 1995: 45).

During the 19th century, the development of parks and green open spaces began to change. For the duration of that time period the urban population increased greatly, leading to the substantial expansion of urban centres. Consequently, new buildings and other developments were constructed over existing
open- or green spaces. Thus, in response to the destruction of the environment, government and planning officials started to fully recognize the importance of these spaces. It was only then that park movements and the development, protection and conservation of urban parks was fully pursued by the state. According to Conway (1991) it was only in the late 1800's that local authorities throughout the UK gained full authority for the development, provision and maintenance of green spaces.

The end of the 19\textsuperscript{th} century gave birth to a new innovative idea, the 'Garden City'. This new idea was brought forward by Ebenezer Howard. Briefly, Howard suggested that by developing new towns within the rural areas, residents of these towns will be able to enjoy the full benefits of city life while still being able to benefit from the higher quality of green environments in the countryside. However, Briffet \textit{et al.} (1999) mentions that during this time period, efforts by government and planning officials tried to establish and incorporate planned green spaces within cities. Consequently, the efforts made at that time period was to improve the environmental quality of urban areas and to provide leisure and recreation opportunities for urban residents. It seems that it was only in the late 19\textsuperscript{th} and early 20\textsuperscript{th} century that the full benefits and importance of green spaces within urban cities was fully recognized and appreciated (Conway, 2000: Woudstra & Fieldhouse, 2000).

However, during the middle of the 20\textsuperscript{th} century a decline in parks and green open spaces was found. This was partially due to the financial constraints faced by local governments during the early 1970's (Whitaker & Browne, 1971). Consequently, reduced budgets led to the diminishing of staff members maintaining the parks and therefore a deterioration of parks and green spaces (Kendle and Forbes, 1997). With the rapid deterioration of green spaces and parks, these spaces became less popular and attractive.

The second half of the 20\textsuperscript{th} century is known for the vast majority of urban residents moving out of the city centres into the suburbs or countryside. This was mainly due to a belief in increased quality of life and environmental quality on the periphery of cities (Woudstra & Fieldhouse, 2000). As a response to the latter occurrence, local governments shifted their attention of maintaining green spaces and parks within the city centre to planning for new green areas and the conservation of valuable ecological areas in the periphery of cities. Due to the attention shift by local governments, an ever higher rate in deterioration of green spaces and parks could be found within city centres (Yusuf, 2012: 26).

At the dawn of the 21\textsuperscript{st} century, it appears that a shift towards a concern for quality of life and environment awareness began. A renewed interest in urban green spaces, with the focus being that these areas provide places for communal interaction and activities started. At this time local governments and planning authorities introduced new planning methods, guides and policies to guide cities towards a more sustainable way of development. In response, NGO's such as Greenspace Scotland, Green Space, CABE space and the Royal Society for the Protection of Birds (RSPB), made greater efforts to study and research the quality of urban green spaces. Furthermore, awards such as the Green Flag and Spaceshaper awards were introduced to assess and determine the various qualities and benefits of these green spaces. The latter qualities and benefits took into account the environmental characteristics, social aspects, economic benefits and other important aspects of these green spaces (Yusuf, 2012: 27).

3.2 African approach to green planning

The key difference between the African city and the European city is the lack of correlation between built form and physical appearance, activity and use. Building density and type in African cities has little to do with actual density and activity because of the informal and temporary character of many of the structures and activities (Schoonraad, 2000:1). The informal approach to spatial planning implies that African cities do not plan for green spaces, as was the intent with the development of the concept of green spaces developed in Europe, explained in the above mentioned section.

Recently, with the growing emphasis of sustainable development, African cities adopted new approaches to green planning and green space provision. The ecosystem approach is gaining importance, first introduced in the 1980’s as strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way. It recognizes that humans are an integral part of ecosystems and stresses the need for holistic and integrated decision-making.
making (Cadman, 2010:16). Implicit in the ecosystem approach are the linked ideas of increasing ecological connectivity with a view to increasing resilience, and thinking constructively about management systems in other sectors that can contribute to achieving conservation aims (Dudley et al., 2010).

Ecosystem services studies in African cities are biased towards South Africa (Cilliers et al, 2013). Over the past five years, South African local government authorities (municipalities) have come to play an increasingly important role as users and managers of biodiversity, and it is at local government level that many day-to-day, operational decisions about land and natural resource use are made (Cadman, 2010:49).

However, there is still little evidence of integrated green planning approaches in Africa, along with methods (ecosystem-based evaluation, hedonic pricing methods) to determine the economic value of green spaces in an attempt to enhance the importance of such spaces.

In a recent study conducted in Potchefstroom (South Africa) to determine the economic value of green spaces in urban areas, it became evident that the African reality contradicts the European situation (Cilliers, 2013). The international cases proved that economic value of residential properties increased as proximity to the green space increase, thus, the closer a property is located to a green space, the higher its market value reads. From the studies it was concluded that most people are willing to pay more for a residential property close to a green space, the green space being reason for an increase in the market value (Cilliers & Timmermans, 2012).

The Potchefstroom case study attempted to test the “international tendency” in three similar residential areas, all in close proximity to qualitative green spaces (the golf course, the university sport fields and the Mooi River). The findings revealed no relationship between proximity to public green spaces and increase in property values. In all three areas the property prices (per square meter) increased as distance from the green space increased, implying the value of residential properties adjacent to the green spaces was lower than properties located further away. Although a clear trend was not visible, it does seem that green spaces is not as highly valued in developing countries as in Europe (Cilliers, 2009), as well as willingness-to-pay for properties adjacent to green spaces, acknowledging factors such as safety, security and amenity issues. It was evident that the Potchefstroom case study is in contradiction to the accepted international theories with regard to proximity to green spaces and increased property values (Cilliers & Timmermans, 2012). The case study, however, stressed the social and cultural challenges that form part of the African reality.

As stated, similar studies focusing on ecosystem services and the value of green spaces are limited within the African context (Cilliers et al., 2012), in comparison to the numerous number of studies conducted in developed countries (Fausold and Lilieholm, 1999; Wolf, 2004; Meadows, 1999; Luttik, 2000; Thompson, 2002; Schmidt 2008). The lack green planning approaches can be a result of the lack of formal planning and thus lack of qualitative green spaces. However, it does emphasize the different environment and social character that is part of the African city. The reality is that the implementation of “green policies” in planning and management of urban green spaces is a major challenge in developing countries, also in South Africa (Roberts and Diederichs 2001; Roberts 2008; Cilliers 2009), as African countries already have a proportionally higher pressure on land use, modification of atmospheric composition, disturbances of the water cycle, alteration of the nitrogen cycle and the loss of biodiversity per produced unit of wealth than Europe (Kestermont et al., 2011). This paper emphasized the differences in terms of culture, environment and spatial challenges of Africa that should be taken into account when planning and creating such policies. These figures should be put into perspective and contribute to the quest for sustainable development objectives in Africa (Kestermont et al. 2011), especially when considering the uniqueness of Africa and in the attempt to create great African places.

4. CONCLUSIONS: AFRICA’S UNIQUE FORM AND APPROACH TO SPATIAL AND GREEN PLANNING

In many African countries, planning legislation dates back to the colonial era and many have become redundant since independence. The lack of spatial planning combined with rapid urbanization, has
contributed to these cities becoming increasingly chaotic, inefficient and unsustainable. Does this mean that these cities are not livable? Definitely not.

Livability as a concept is a determinant of how well the city works for its inhabitants. This paper briefly discussed how inhabitants of the African city have created a spatial mosaic, expressing the diverse reality that operates within the African space. The pieces explain how the inhabitants mix formal and informal practices, influenced by colonial and post-colonial practices, globalization and local conditions, resources, technologies and environmental requirements, to create a city that works for them, as Africans.

The paper further illustrated that different valuations (and perceptions) of green spaces exist in the African context. The international accepted approaches of correlating residential valuations and proximity to green spaces does not seem to fit the African picture. It goes on to argue that sustainability of the continents environment and human life requires, amongst other things that human settlements in both urban and rural areas should be made economically buoyant, socially vibrant and environmentally sound with full respect for cultural, religious, and environmental diversity, to make them more livable to the rest of the world. The answer to their spatial problems will not be found in a blueprint approach or Modernist plan, formulated by foreigners, but rather in an African solution, acknowledging and embracing the unique character, culture and environment of the African cities.

It has to be acknowledged that Africa is a unique and is a challenging continent. Its time planners and academics in Africa stop trying to make Africa fit the picture of what we deem as ideal, but rather recognize and capture what makes it the unique place that it is. We need to formulize our own valuation methods and plan accordingly. Urban proposals for African cities should embrace the uniqueness and challenges and allow the transformation of the African City into more livable urban centers, according to African standards, cultures and the unique environments.

5. REFERENCES


Revitalising the Public Open Spaces in the CDB of Pietermaritzburg to Immortalize a Great Place

Dumisani N. NDABA¹, Karina LANDMAN²

¹Candidate Researcher at the Council for Scientific and Industrial Research
Council for Scientific and Industrial Research (CSIR); Brummeria, Pretoria, 0001, South Africa
Tel: +27 (0)12 841 3269 / Fax: +27 (0)12 841 4036
dndaba@csir.co.za

²Professor of Town and Regional Planning at the University of Pretoria
Department of Town & Regional Planning, University of Pretoria; Hatfield, 0001, South Africa
Tel: +27 (0)12 420 6379 / Fax: +27 (0)12 420 3537
karina.landman@up.ac.za

Abstract

Pietermaritzburg has the potential to be a great city. It has been the capital city of three governments and is currently the capital city of KwaZulu-Natal. Its prime location has been partially responsible for this because it is a commercial, social and economic node with a rich cultural heritage and a CBD that is the administrative central authority of the province. It’s internationally acclaimed competitions and sports give it global appeal. Great cities are also made by great public places. Msunduzi Municipality embarked on a project to regenerate the CBD of Pietermaritzburg and restore it to its former glory by using the Freedom Square Precinct as a catalyst to inspire further development and upgrading. In the heart of Pietermaritzburg is Freedom Square Park. It has been transformed from being the Market Square for social gatherings, sales and political demonstrations in the fight against political oppression. By virtue of its history it has all the ingredients and features of a Great Place. However, parts of the changes are due to a trend towards the privatisation of urban space through projects to revitalise the inner city and enhance its tourism and investment potential. Public open spaces provide an area for communities to, amongst other things, relax, learn, exercise, enjoy nature and socialise with others. Their design and quality is important in creating cohesive societies because they welcome people from different cultures, incomes and age groups. They provide the platform for society to exercise their democratic rights which is important for the new political dispensation that accommodates diversity. When some of these characteristics or uses are, however restricted or threatened the ability of the square to be a great place that enable tolerance and social cohesion or act as a platform for democratic activities is questioned. This paper discusses the transformation of the Greater Freedom Park Precinct and the specific public spaces within it. The changing nature and function of the public open spaces within this precinct was understood by documentation review for historical and spatial analysis, site observation on the use of space and selected interviews. It shows how this urban space has changed and highlights the implications for urban planning and design. Interesting questions are raised for intellectual debate around creating environments that promote inclusive societies and the role of history in creating great places. Although this project is just at city centre scale, within a particular precinct, valuable lessons can be learnt as to how a great place can be transformed and perhaps immortalised.

Keywords: Public Open Space, Transformation, Privatisation, Democracy, Urban Renewal, City Precinct Interventions.
1. INTRODUCTION

Great cities are made by great public places. Throughout history great cities have been known by their great public places, for example the Piazza de Campidoglio and St Peters Square from the Renaissance and Baroque Rome, the Piazza del Campo in Florence or the Piazza San Marco in Venice. Public places, in particular great squares or piazzas have also become the heart or center of the city in many cases, surrounded by the main institutional buildings and functions, for example the Great Market Square in Brussels or the City Square in Antwerp. In the new world, squares have also become reflections of the changes within great cities, for example Times Square in New York.

Pietrmaritzburg also have the potential to be a great city. It is located in the heart of KwaZulu Natal and has played a significant role in the early history of the city. The city’s name itself goes some way in articulating its history because Pietermaritzburg is an amalgamation of the names of Voortrekker leaders; Piet Retief and Gert Maritz, who laid out the town and declared it the capital of the Republic of Natal in 1883 and IsiZulu speakers know the city as “UMgungundlovu” (the place of the elephant), which translates to the place of the head of the kraal of the Zulu king, Dingaan (Msunduzi Municipality, 2010). Its capital status was re-affirmed when, in 2004, the KwaZulu Natal Provincial Government re-instated it as the sole (previously shared as the Legislative while Ulundi was the Administrative) provincial capital. Its central location within the province is one of the characteristics that contribute to its popularity as a capital. According to the South African Cities Network (2013: Online), Pietermaritzburg is the one of the best preserved Victorian cities in the world. There is more to the city than aesthetics because its calendar boasts global events such as the: 89 km Comrades Marathon (Durban to Pietermaritzburg), Midmar Mile swimming event (world’s largest inland swimming race) and the Duzi Canoe Marathon (Africa’s oldest canoe marathon) (Msunduzi Municipality, 2010). At the core of this global city, is the Central Business District. This central area is a major regional, commercial and social service centre for KwaZulu-Natal’s Midlands and an economic centre of the UMgungundlovu District Municipality. Although it contributes significantly to the non-industrial economy, it is also has parks where people can meet and share ideas (Udidi, 2004).

Great places develop over an extended period of time to become a ‘successful place’ (Montgomery 1998:93), going through many changes that may influence its use and meaning (Short 1996). In the heart of Pietermaritzburg is Freedom Square Park. This is an important public place with great historical value. In recent years, the space has undergone several changes to renew and upgrade the area. The completed phases of the renewal include an extension to the public library, and a new tourism hub and taxi rank. The last phase is an outdoor museum that will honour heroes such as Nelson Mandela, Alan Paton and Mahatma Gandhi and their association with Pietermaritzburg. This will be displayed along pavements that lead to nodes of historical interest on a Piazza that will replace Freedom Square Park. Yet, some of these changes involved the privatisation of public space with restricted access. Internationally, modifications of public space in terms of privatisation have been severely criticised (Carmona 2010a). These spaces have been criticized as being over-managed and controlled and for serving only a selective group of people (Madanipour, 2010; Carmona, 2010a). It therefore raises questions regarding the implications of the changes in the Freedom Square Park Precinct, not just for the city and its people in terms of use, but also in terms of planning and design more generally. This is especially important in South Africa, where access to well-developed public open spaces is a right that is enshrined by the supreme law of South Africa. This is encapsulated by Section 24 of Chapter 2 (Bill of Rights) of the Constitution (Act 108 of 1996), where “Everyone has the right to an environment that is not harmful to their health or well-being; and to have the environment protected for the benefit of present and future generations, through reasonable legislative and other measures that – (i) Prevent pollution and ecological degradation; (ii) Promote conservation; and (iii) Secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development (South Africa, 1996:1253).”
This illustrates the obligation that government have to provide public open spaces that are socially inclusive, economically viable and ecologically sustainable. The importance of these public spaces as part of the desired future for South Africa is even recognised by the National Development Plan, as captured in this excerpt:

“To make it easier for South Africans to interact with each other across racial and class divides, the country needs to improve public spaces and public services.” (National Planning Commission, 2011: 291)

There is no denying the imperative role that public open spaces play in uniting society in our new political dispensation. The city of Pietermaritzburg (PMB) in KwaZulu-Natal (KZN) has taken cognisance of this. The Local Authority has initiated projects to develop the Public open spaces within the Central Business District in order to draw citizens back to the city centre and promote Pietermaritzburg as the City of Choice by honouring heroes of the political struggle for liberation. Yet, some of the interventions, involves the restriction of access at certain times and over-management and control of some of the spaces. In line with Madanipour’s (2010) question, one may therefore ask whose spaces are they and who do they serve? It also raises issues around accessibility and the publicness of these spaces. “Without being accessible, a place cannot become public” (Madanipour 2010, p.8). In a young democracy, celebrating 20 years of existence, this remains a critical issue to consider, especially given the important role that public spaces can play towards greater democracy (Mattson, 1999) and bearing in mind the specific history of these public spaces in particular. This paper sets out to discuss these changes in the Freedom Square Park Precinct and their implications for the city and its people, as well as for urban planning and design in particular.

2. LITERATURE REVIEW

2.1 Defining public open spaces

There are many definitions of public space, highlighting different aspects such as the common ground, sharing through contact with strangers and peaceful coexistence or free access. For example, one definition considers public space as “the common ground where people carry out the functional and ritual activities that bind a community, whether in the normal routine of daily life or in periodic festivities” (Carr et al. cited in Madanipour 1996:146). “Public space is space we share with strangers, people who aren’t our relatives, friends, or work associates. It is space for politics, religion, commerce, sport; space for peaceful coexistence and impersonal encounter” (Walzer cited in Madanipour 1996:146). Another definition of the public realm is concerned with access: “all the parts of the urban fabric to which the public have physical and visual access. Thus, it extends from the streets, parks and squares of a town or city into the buildings which enclose and line them” (Tibbals, cited in Madanipour 1996:146).

In essence, public space can be summarised as “… space that allows all the people to have access to it and the activities within it, which is controlled by a public agency, and which is provided and managed by public interest” (Madanipour 1996:148). Public open spaces are therefore unrestricted, publicly owned areas. They can either be man-made (“hard”) or occur naturally (“soft”), although most of them consist of varying degrees of both elements (CSIR, 2005:109). There are numerous classification systems for public open spaces based as size, type and layout. The functional types are the most relevant for the CBD of Pietermaritzburg. Carmona, (2010b) identifies these 11 functional types as public parks, squares and plazas, memorials, markets, streets, playgrounds, community open spaces, greenways and parkways, atrium/indoor market places, everyday spaces and waterfronts.

Although these public open spaces are classified as separate entities they work best when interconnected with one other (CSIR, 2005:1). This makes them attractive to people that have different needs. People are likely to stay longer when public open spaces are designed with elements that can accommodate different activities during the day, night, on weekdays or on weekends. This determines which users are catered for and translates into diverse group’s users being accommodated for a diverse range of
activities (CSIR, 2005:1). Beyond serving as a functional platform for these activities, public open spaces also have an essential societal role to play.

2.2 The importance of public open spaces for society

There are many psychological and physical social benefits associated with well-developed public open spaces. Visually-stimulating environments are associated with happiness and can potentially boost social morale. They break people’s daily routines and allow their minds to wander (Sherer, 2006:12). For most city dwellers, natural public open spaces may be the only link they have to nature. Public open spaces can also stimulate people to become more physically active. They are an alternative recreational facility for those who cannot access or afford health institutions such as gyms. This is important because physical health and psychological well-being are closely linked. A positive feedback cycle is created when people are exposed to the activities of others and encouraged to participate or imitate (Cattell et al, 2008:544). These spaces don’t only benefit individuals, but rather, the society as whole. Cattell et al.(2008:553) is of the opinion that they make a space feel safer because they draw people in and provide “eyes on the street”. This character invites people from all walks of life. Their socially inclusive nature affords those who are from different cultures, incomes and age groups, an opportunity to interact. This is the essence of a vibrant democracy as captured so well by Thompson, (2002)

“What remains true for public open space, and for urban parks in particular, is that they are the places where democracy is worked out, quite literally, on the ground, and therefore, the way such spaces are designed, managed and used demonstrates the realities of political rhetoric” (Thompson, 2002:60)

It is well-established that public open spaces are important in creating an inclusive democratic society and enhancing social interaction (see also for example Mattson 1999). This line of thinking is in direct contrast to the rule of government under the Apartheid. The nature of the history between these two ideal makes it difficult to speak of one without reference to the other.

2.3 Public open spaces in the Apartheid City

Prior to 1994, the political system of Apartheid that governed South Africa fostered separate ethnic growth pathways and severely restricted movement and opportunities for prosperity for the non-whites through discriminatory legislation (Adams et al, 2012:378). Each race was assigned a separate region in an urban area where they could own land, do business, live and play. The government dictated where people of different racial groups were permitted, to set them apart from each other so they perceive themselves as separate social units (McConnachie & Shackleton, 2010:245). The city was a reminder and focal point of this policy because it was where most people needed to be for various reason but also served as a powerful means to demonstrating the apartness (Popke &Ballard, 2004:100).

The socio-geographical borders under Apartheid and the deeply rooted segregation resulted in the imbalanced spatial patterns that are common in South African cities today which also contribute to the lack of access to public open spaces. McConnachie & Shackleton, (2010) found that overall access to public open spaces in South Africa is low by world standards and those that are available for the less fortunate are of low quality. There is also disparity between townships and suburbs because suburban dwellers have disproportionately more public open space available for the use and enjoyment. The spatially-orientated racial policy of Apartheid was detrimental to access to public open spaces for non-whites and this is currently exacerbated by privatisation of public open spaces.

2.4 Conflict between the privatisation of public open spaces and the ideals of democracy

In a democratic society the public open spaces should incorporate all of society as a whole rather than being set aside for select few (Thompson, 2002: 59). These spaces were historically made to entrench certain ideas and have now been reconfigured for the new political outlook. There are those who still don’t want to associate themselves with people unlike them or viewed as being in at a lower social standing. When public open spaces are privatised, the ownership and maintenance are transferred from the government to private entity. This system excludes people based on their inability to afford to use
theses spaces which is threatening for social integration (Spocter, 2005:10). This type of exclusion is facilitated by excessive control of the privatised spaces and an emphasis on security; a trend to which Carmona (2010a) refers to as the over-management of public space. In sharp contrast to this is the under-management of public spaces that often leads to neglected and lost spaces in the city that are ultimately only used by certain groups of society as others choose not to visit them due to a lack of maintenance or fear (Carmona 2010a). The privatisation of public space has symbolic meaning because these spaces are where society can define and freely express itself doing things they cannot do anywhere else. The government, as a custodian of public open space, has the responsibility ensure that areas which are the face of public interaction are inclusive and representative because a truly democratic society accommodates diversity.

Public space is therefore important because it “expresses and also conditions our public life, civic culture, everyday discourse” (Walzer cited in Madanipour 1996:146). Tibbals points out that the public realm is “the most important part of our towns and cities. It is where the greatest amount of human contact and interaction takes place” (in Madanipour 1996:146). Tensions, however, emerge when overemphasis on individual places leads to the transformation of public spaces into privatised common spaces for only a selected few through access control and over-regulation. The question is whether this poses a problem in cities. According to Madanipour, it is important that the development of urban public space, as part of a larger public sphere, addresses the tensions inherent in the contemporary transformation of the urban public realm and contributes to the emergence of an urbanism which promotes social integration and tolerance (Madanipour 1999:879). There are continuous calls for greater integration and interaction between different groups of people in SA cities. Along these lines, a number of urbanists have discussed the important role of and access to well-developed public and open spaces to enhance the level of diversity and increase social and economic interaction and opportunities in cities (including Gehl 1987; Carmona 2010a & b; Talen 2008). Given this, it is important to understand the changing nature and function of urban spaces in South African cities and the implications thereof for future urban planning and design in terms of the promotion of greater diversity and access to opportunities for all urban residents.

3. OBJECTIVES

The objectives of the paper is to show how the Freedom Square Precinct and the specific public spaces that form part of it has changed over a number of years and what the implications are for urban planning and design in the city in terms of promoting greater diversity and access to opportunities for all urban residents.

4. APPROACH & METHODOLOGY

This study utilised a qualitative approach to understand the physical changes and use patterns and explain many complex aspects of this process. The study made use of four methods to obtain the relevant data regarding the transformation of the spaces and their implications. These methods included a documentation review, historical analysis, spatial analysis and observation of the site, and semi-structured interviews. A historical and spatial analysis of the study area was carried out to describe how these five spaces had changed over a period of ten to15 years. A number of documents were used to describe the context in which the selected public spaces are located, including selected newspaper articles, journal articles, land use applications and building plans, the Freedom Square Project Business Proposal, Zoning and Land use maps, environmental management plans, Google photographs and maps, personal photographs and the Integrated Development Plan of Pietermaritzburg. The objective was to outline the physical changes, changes in buildings around or on these spaces, changes of land use, changes of vegetation and other physical features and changes in general use patterns. They also contributed towards providing a short background on the city and the neighbourhood whereas the planning documents outlined some of the intentions related to the subject.
A brief historical and spatial analysis of the five selected public open spaces in the Central Business District of Pietermaritzburg was also carried out. The aim was to get an understanding of the changing nature and function of these areas. This analysis included a description and spatial analysis of the various types of open spaces within the geographically defined area by making use of maps, plans and photographs. In addition, a specific period of time was spent at each of these spaces to just silently observe and record what people are doing. This aided reflection on the types of activities that people are busy with and the types of people using the spaces. The study furthermore necessitated that a few semi-structured interviews with willing participants in some of these open spaces had to be conducted. This enabled the study to gain further information about the way in which the nature of the space meets the needs of people in the built environment and allows them to perform their daily activities. People, who regularly used the various public open spaces within the Study Area, were identified from the site visits. The strategy was to sample at least one/two/group from each category of user and get an understanding of what they perceive as being the changes in the space identified and subsequently, how those changes have influenced the manner in which they use the space. The following users were identified, namely metered cab drivers, informal traders, passengers, taxi drivers or assistants, couples, working people, groups of students and groups of people that have common interest. The total number of interviewees was 21. Of these there were four municipal officials, two metered cab drivers, five informal traders, one passenger, one taxi driver and two assistants, one couple, one working person, two groups of students and two groups of people that have common interests.

5. RESEARCH ANALYSIS & FINDINGS / RESULTS

What is now known as Freedom Square Park was originally the Market Square, a main center for the town before any major buildings were erected in Pietermaritzburg (Thorrington-Smith, Rosenberg &McCrystal, 1973:12). It is bordered by a taxi rank (what was once Administration Avenue) in the North, Chief Albert Luthuli road in the South and Langalibalele and Church Street on the east and west respectively (number 12 in Figure 1). This market was responsible for transforming Pietermaritzburg into the economic hub of the Natal midlands because it catered for farmers and traders, en route to either the coast or inland (Laband & Haswell, 1988:122).
Its proximity to the formerly “whites only” City Hall (number 7 on Figure 1) and Council Chambers influenced its selection as a meeting point for demonstrations, political rallies and marches. Gatherings in this precinct are associated with addresses by names such as Ghandi, Mandela and Alan Paton (Devereux, 2013). In order to demonstrate this rich socio-political heritage an Executive Committee resolution was taken on the 25th May 2005 to create a Masterplan for Freedom Square Park. The fundamental aim of the project was to renew the inner city in a bid to draw investment, streamline the transportation networks and create a tourism attraction (Msunduzi, 2007:2).

The overall renewal project is phased in smaller scale projects. The following have already been completed, namely a new taxi rank, the upgrading of Carbineers Memorial Garden of Peace, the fencing, landscaping and vegetating of the Freedom Square Park, and the extension and upgrade of the Children’s section of the Bessie Head Library.

The Study Area is bordered by Boshoff Street, Langalibalele, Chief Albert Luthuli and Church. The specific public open spaces of interest are shown in Figure 2. The red block has the New Taxi rank. The blue block outlines what is now Freedom Square (previously Market Square). The Green block is the site of the Tourism Hub which is currently (August 2013 under construction). The Purple block outlines the Carbineers Memorial Garden of Peace. The orange block is the Library Park.
5. The transformation of the public open spaces within the CBD of Pietermaritzburg in the past ten to 15 years

Figure 3 clearly shows a bird’s eye view of the drastic changes that have occurred in the Study Area. A new Taxi Rank has been built on the site of a thoroughfare/connecting the street known as Administrator Avenue. The Freedom Square Park has been rehabilitated. Its trees are much bigger now and the grassed area is less degraded. What were once sheltered benches for the public to wait for metered cabs, busses and taxis, is now the construction site of the Tourism Hub. The Carbineers Memorial Garden has street furniture, a fence and gate, vegetation and monumental statues and plaques. The Library Park was badly managed but now is a major attraction for recreational purposes during lunchtimes.

In a bid to attract investment into the Central Business District (CBD) the Msunduzi Municipality has invested in a number of projects to revitalise the precinct that is bordered by Church, Langalibalele, Chief Albert Luthuli and Boshoff. The first of these that will be discussed is the new taxi rank. The speech in quotation marks is transcribed verbatim from interviewees. The initials in the brackets are their name and surnames which have been reserved to ensure anonymity and comply with the confidentiality agreement. The following section will explain how each public space within the study area has been transformed. The first of the spaces that will be discussed is the Freedom Square Park and taxi rank.
5.1.1 Freedom Square Park and the new taxi rank

The location of the new taxi rank used to be Administrators Walk. This was a Public Open Space which was a tarred street that served as a thoroughfare between Langalibalele and Church Streets. It was one of the borders of Freedom Square Park. Another transformation in the function of Administrators Walk was the relocation of informal traders from the Freedom Square precinct into the inside of the new taxi rank. No hawkers are allowed to be housed outside the area designated for traders inside the taxi rank (as is illustrated by Figure 4 which is placed outside the new taxi rank).

Figure 3: The transformations of the Study Area from 2006-2013 (Google, 2013)

Figure 4: No hawkers allowed (Source: Author).
The traders were moved so that they could be regulated and allow the Freedom Square Park to be vegetated as stated by the Manager for Economic Development and growth:

“What we did is that we moved traders on the square into an organised trading area. And we also moved all of the taxis that were all over the place into this facility. Then we fenced the square and re-grassed it in anticipation for the next phase. The main change over the last ten years is that the access to Freedom Square has become problematic because of the large number of informal traders that were occupying the square illegally in a sense. The traders were not regulated and it was chaotic and the Freedom Square Master plan showed that we needed to reclaim that part of the square for the use of the public”

The intention behind the move was not only to regulate the informal traders on Freedom Square park but also as a means to create order from the apparent chaos resulting from the lack of co-ordination between taxis and informal traders in the same space. The consequence is a relatively well-structured environment (Figure 5 and 6)

![Figure 5: Inside the taxi rank](image)
![Figure 6: Orderly layout of the stalls inside the taxi rank](image)

Most of the activity that occurred on Freedom Square Park has been transferred into the new taxi rank, but the park is still eventful in its own right. Even though Freedom Square Park has been fenced off to allow the grass to vegetate, the entrance gate is open for those who use the parking within the Park’s premises. This has allowed homeless children to smoke glue freely on the premises and the washing of taxis from water collected from the toilets housed within the taxi rank. It now looks quite messy and there is a lot of litter-mostly take away containers and newspapers (Figure 7).
A couple chatting casually in the Freedom Square Park also shared this sentiment when they had this to say about how the park had changed

“(NM) It never used to be like this in this park.
(AM) The dirt in this place is caused by the people who come and hang out here only to find that they are smoking or doing other unsavoury things and no one is watching them so they throw everything on the floor.
(NM) The other people have turned it into a place to drink alcohol and they leave bottles here and contribute to the mess”

From this it is evident that people are discouraged by socially unacceptable behaviour and a dirty environment. This also have an influence on the use of the space. The next subsection documents the transformation of the park outside the town library.

5.1.2 Library Park

The park outside the Town library also changed. Its landscaping was improved, trees and shrubs were planted, public furniture and a water feature were installed and it was fenced off. It is now closed to members of the public after 17:00 on weekdays and all day on weekends. Some people would still like to use it even then as a user exclaims

“Sometimes they close this place up so we can’t always use it. I didn’t know this place until recently. I knew the other one. (points to Carbineer Gardens).”

Therefore, although the time of use is restricted and controlled, the revitalised space provides an array of activities and opportunities for interaction (Figure 8) that were not available before
This park has become better managed and maintained thus making it more popular and attractive for a variety of park users. The next sub-section addresses the changes in what will be the new Tourism Hub.

5.1.3 Tourism Hub

The Tourism Hub was under construction during the time that the study was done. The plot where the Hub will be located used to be a bus stop where commuters would wait for metered taxis, buses and kombis. It has now been transformed to create a three-storey Tourism Hub to serve PMB and extended KZN Midlands (Figure 9-10). Essentially, the vision of the project is to create a bus stop with facilities for agents and tour operating companies. A fully fledged Information Centre for Pietermaritzburg as a whole and regional Tourism Offices.

These changes have made some metered taxi drivers nervous because the green benches located in this area were the prime spot for any person who wanted to get a metered taxi to anywhere in Pietermaritzburg as demonstrated below:

Cab / metered taxi driver:

“CD) that’s not good. When people stayed there and relaxed and took a break and hid under the shelter when it’s hot or raining, they also used to wait for us. Business has gone down drastically.”

Figure 8: Uses of the park (Source: Author).
The impact on the changes on the use of space is predicted to undermine business for the metered fare taxi drivers. Their customer base was predominantly made up from members of the public that used the benches meet, sit and wait. The last public open space to be documented is the Carbineers Garden.

Figure 9: Metered taxis and people wait at the bus stop November 2012 (Google Earth: 2013)

Figure 10: Tourism Hub under construction August 2013 (Google Earth: 2013)
5.1.4 Carbineers Memorial Garden of Peace

The Carbineers Memorial Garden of Peace was upgraded to celebrate different religions and the ideals of democracy as captured by the foundation stone (figure 11) found in the park.

“The Carbineer’s GARDEN OF PEACE This foundation stone was unveiled on the tenth anniversary of South Africa’s democracy 27 April 2004 by His Worship the Mayor of the Msunduzi Municipality, Councillor G.H. Zondi, to honour the sacrifices made in striving for equality and liberty, and the attainment of peace in our country.”

Figure 11: Foundation stone in Carbineers Garden of Peace (Source: Author)

This park has had extensive renovation including two new plaques, new street furniture and landscaping. The gardens have subsequently been closed due to misconduct as summarised by the Strategic Manager for Economic Development and Growth:

“We had a control issue there and we’re trying to sort things out. All these young people are coming there and it’s becoming a booze area and it’s not nice. Near the City Hall and bottles and paper all over the place so there is a management issue that we’re trying to sort out.”

This reflects the discomfort with the use of the space and the perception that increased management and control is needed to regulate the use of the area. These changes have various implications for planning and design in terms of enabling greater diversity and access to opportunities.

5.2 The implications are for urban planning and design in the city in terms of the promotion of greater diversity and access to opportunities for all urban residents

The transformations of all five of the public open spaces that are explored by this report have benefited from the renewal of the Central Business District of Pietermaritzburg. They are smaller scale projects that make up the city’s overall drive to visually reclaim its capital status. Freedom Square is the centrepiece where it all comes together.

The Taxi Rank has become a melting pot of cultures. It is place where a place where; young professionals meet informal traders, teenage taxi conductor talk to the passengers that are middle-aged mothers and the high school pupil takes a taxi with a pensioner. Even though access to it is open to anyone during the day, it shuts down at 19:00. The gates are locked and the lights are turned off. No one can enter. This is in contrast with its past when anyone could go there freely whenever they wanted to when it was Administration Avenue. On the one hand it has created opportunities for the informal traders who made it into the sheltered stalls whilst simultaneously excluding those who did not. The traders who were formerly operating from Freedom Square Park have also faced forced removals that have benefited those who were moved into the taxi rank and devastated those that had nowhere to turn. The Freedom Square Park was originally an open space from where informal traders used to sell their goods. It was initially open to the public at any time of the day. When the revitalisation project was initiated, it became fenced off to allow it to vegetate. The informal traders were moved inside an area.
in the taxi rank to control where they traded from and clear up the Freedom Square Park. The informal traders cannot trade as they please because the taxi rank opens and closes at specific times of the day. Their clientele are not only people that come to town but mostly those that use the public transport housed within the Taxi Rank. It has shrunk. This is detrimental to business because Sherer, (2006:19) is of the opinion that the pedestrian traffic from well-developed, properly managed public open spaces is what draws traders (formal and informal). The Piazza that is planned is specifically designed for tourists. So a more diverse group of urban users is anticipated. They are expected to be varied by their nationality, race, age, gender, and so forth. This would enhance the opportunities for business that are around this area. This is unlike the Library which is one of the most diverse open spaces within the Study Area

Library Park is only open during the week. It is serene and well managed. It is frequented on weekdays during lunchtimes. It is only open during business hours (8:00 to 5:00) after which its gate is locked. This is denying the public their Constitutional right to public open spaces stipulated by the conditions of section 24. It has a very diverse age group range and FET students, working population, lower income contractors and informal traders. It is planned and designed to accommodate the younger age group because it is located next to the library. Its engaging design draws people in even though its access is limited to business hours during the week. This would probably also is the case once the Tourism Hub is opened.

The Tourism Hub was once a public open space that was used by people to wait for buses, taxis, metered taxis and each other. Informal traders also frequented it because there was a wide customer base. It had unrestricted access for anyone at any time. The typology of Public open spaces created by CSIR, (2005:2) identifies public transport stops/station as a place for those waiting for buses and taxi which can also become informal trade areas and places for people to meet. The proposed Tourism Hub will be open only during normal business hours. It has been planned specifically for those who can afford the facilities that will be housed within it. It will exclude people through governance (rules and times) and physical measures (fees, and barriers to entry), identified by Spoeter, (2005:10) as common way to privatise spaces. The opportunities for informal traders and metered cab drivers have been severely restricted and will be transferred into the hands of those who own and operate the Tourism Hub. There is no doubt about who will benefit from the Tourism Hub and who will not. It has been planned specifically for those who can afford the facilities that will be housed within it and thus limiting the access to the general public by reducing the diverse group of users that frequented the bus stop. The future of the Carbineers Memorial Gardens of Peace on the other hand, is still uncertain

Carbineers Memorial Garden of Peace had many great intentions behind its creation. The Municipality has closed it unofficially with restricting tape until further notice. It became a place where high school pupils would go to drink, drugs were sold, littering and public indecency occurred. The Municipality had problems controlling the area and its users. Its access has been limited now even though previously it was created for the leisure of the citizens of Pietermaritzburg. There can be no access or opportunities afforded to urban residents while this is the case.

As each of these spaces are being privatised at varying degrees, their accessibility is becoming limited only to certain groups. The altering of the nature and function of the selected Public Open Spaces has various implications for the promotion of greater diversity and access to opportunities for all urban residents.

Planning for public open spaces needs to respond to the needs of the people that use them. It is no mean task to ascertain how diverse user groups will engage with the spaces provided for them. One of the most important lessons that can be learnt from observations in these particular spaces is that monitoring is essential. The spaces that have limited access are the most pleasant and receive positive feedback from users and managers (taxi rank and library park public open space). On the other hand, those spaces where the public can roam freely any time have become derelict and have resulted with some (Carbineers Memorial Garden) even eventually being shut down. Even though the public have a right to these public open spaces, they tend to abuse the right of others to enjoy them through vandalism. Providing the well-developed and maintained spaces is not enough and for the sake of ensuring the environmental rights of users, urban planning and design should make amends to reach a middle ground.
6. RESEARCH CONTRIBUTION

Other authors have looked at the importance of public open spaces for cultural and social expressions and how accessibility is pivotal for the rate of inception of democracy (Shackleton & Blair, 2013; Williams, 2000), fear, anxiety and reactions to urban spatial change created by increase in urban street traders (Popke & Ballard, 2004); privatisation of neighbourhoods through closures (Spocter, 2005), and comparison of the provision of public green space in suburbs categorised by wealth and race (McConnachie, Shackleton, 2010). Even though these studies provide a meaningful contribution to understanding dynamics between democracy and public open spaces in a South African context, none have documented the specific transformation of public open spaces in the Central Business District of a smaller city or specifically investigated the implications for future urban planning and design in terms of the promotion of greater diversity and access to opportunities for all urban residents.

7. CONCLUDING REMARKS

As mentioned in the introduction, great places develop over time and go through many changes that influence its use and meaning. This has also been evident from the discussion of the central spaces in Pietermaritzburg around Freedom Square Park. The Freedom Square Park was originally a free market. In modern times it became a park that is open to informal traders, and the public at large. Recently it was fenced off and the taxis and informal traders were relocated inside the new taxi rank. Park users found their way back into the park. This has resulted in the rundown state of the park because there is no supervision. The new taxi rank is on the site of the Administrators Walk/Avenue. This was one of the borders of Freedom Square Park and a thoroughfare connecting Church and Langalibalele Streets. The Library Park generally had positive feedback. The only shortcomings pointed out were the lack of shelter and its closure on weekends. This space had been extensively transformed via landscaping, fencing and street furniture. The Tourism Hub has replaced the bus stop and there are suspicions that it will undermine the metered fare taxis because it is located where they got most of their business. The Carbineers Memorial Gardens of Peace was upgraded to celebrate various elements of the diversity within South Africa (ethnicity, religion) but soon became derelict.

From this it is evident that there have been many positive physical changes in the various spaces that contributed to the changing nature of these spaces. In addition the uses within these spaces also changed, for example the relocation of taxis and informal traders and finally, the users also changed based on the changing nature of the facilities such as the removal of benches and the erection of a new building. These actions have a number of implications for planning and development in terms of promoting greater diversity and increased opportunities for all urban residents. On the one hand the findings indicated that the use of a specific space in a certain way by specific users, for example in Freedom Park, can lead to a lack of ownership of the park and general dereliction. This, combined with under-management and the perception of no control, can become a concern for other users seeking order and a well-maintained environment. Eventually, this can give rise to many people choosing not to use these spaces anymore and thus limit the diversity within the space. On the other hand, over-management and excessive control can lead to the partial privatisation of public open spaces and restricted use, for example the Library Park and the Carbineers Memorial Gardens of Peace. As a result, these spaces are not completely free to use anytime of the day anymore, which may be of a concern to some users as indicated in the discussion. Ironically, however, these spaces are pleasant, well-maintained and provide a high quality of space.

It therefore raises a dilemma for future planning and the management of spaces in the city in terms of the extent to which spaces should be regulated and controlled, as well as how to facilitate the transformation or modification of space. There is a need for open, accessible public spaces that should
facilitate democratic activity and allow for greater diversity and opportunities in the city. This may however, discourage some members of society to use these spaces if they are not maintained regularly, leading to neglected or lost spaces, which does not foster diversity in any case. At the other extreme is the privatisation of public space through control and regulation which restrict access at certain times and hence the constitutional right of people to open space at all times. This is not only a concern in South Africa, but also internationally. It therefore calls for planners and designers to try and find a middle path where all people would still be welcome at different times, but with a clear understanding by users that greater tolerance also means respect for the space and other users in terms of activities. This needs to be combined by regular maintenance and a presence of guardians of spaces to encourage general good behaviour. In the meantime, as public spaces in South Africa and specifically these historically meaningful spaces in Pietermaritzburg are still looking for a balance between under- and over controlled spaces, the aim of greater diversity across a wide spectrum of users may remain elusive for some time to come. Therefore, while at some level they can be considered to be great spaces, a few challenges remain regarding greater social inclusion and tolerance.

8. RESEARCH LIMITATIONS

Even though the study was limited by the unwillingness of some people to participate, time constraints and lack of access to key documents, some interesting findings were made.

9. FURTHER RESEARCH

This study indicated that there is a need for planners and designers to try and find a middle path in terms of management and regulation in order to avoid the decline and dereliction and thus retreat from many people from these lost spaces and on the other hand to avoid the excessive privatisation of public spaces that would ultimately restrict free use at all times and exclude some parts of society. Future research should investigate what such a middle path would mean in terms of specific planning approaches and measures of regulation.

10. REFERENCES


Devereux, R. (built.enviro@amafapmb.co.za). 30 August 2013. RE: Freedom Square Pietermaritzburg. Email to Ndaba,D. (dumisanindaba@ymail.com)


Thorrington-Smith, Rosenberg & McCrystal Town and regional planning consultants and development economists and valuers. (1973) “Pietermaritzburg: A town planning report for the Borough”. Pietermaritzburg


A Place-Based Approach to Spatial Transformation: A Case Study of Transit Oriented Development (TOD), Johannesburg

Robert Ndebele 1, Aurobindo Ogra 2

1Research Student, 2 Lecturer
Department of Town and Regional Planning
Faculty of Engineering and the Built Environment (FEBE)
University of Johannesburg, Beit Street
Doornfontein-2028, Johannesburg, South Africa
Tel: +27-11-5596131; Fax: +27-11-5596630
1 Email: ziphoe@gmail.com, 2 Email: aogra@uj.ac.za

Abstract

The Transit Oriented Development (TOD) model is increasingly gaining momentum and becoming widely adopted by many cities in addressing a wide range of spatial development challenges within their communities. Development of this nature advocates for a return to a city form that is compact, higher in density, and supported by strategic nodes that promote public transit ridership and non-motorized transport options over auto use. These elements fundamentally constitute the building blocks of TOD. In the wake of this increasing global awareness for TOD, this paper presents empirical findings of TOD perceptions in three nodal areas located along the Louis Botha development corridor in City of Johannesburg (COJ).

Premised on a mixed methods approach, the paper provides an insight into current development typologies in the said corridor while equally interrogating the perceptions of residents toward TOD planning and implementation thereof. The paper also deliberates on the nexus between TOD and place making, out of which a mutually inclusive relationship is established. While the findings of this study reflect a rather poor public awareness of TOD and place making, several other points have been identified. Continued revitalisation programs and design improvements are required. Also, issues of parking planning and management will ultimately require a renewed focus in light of the anticipated Bus Rapid Transit System (BRTS) service along Louis Botha corridor. The paper culminates in the formulation of a set of TOD key determinants derived from the data analysis exercise. Though not necessarily intended to be standard reference points, the paper emphasizes the importance of these determinants in corridor oriented development.

Keywords: Transit Oriented Development (TOD), Place-Making, Spatial Transformation, Corridor Development, Production of Social Space, Public Transit.

1. INTRODUCTION

Johannesburg, located in the heart of the province of Gauteng, is South Africa’s wealthiest city. Widely known as Joburg or Jozi, it is the focal point for economic activity and boasts strong African and global links. Todes (2012:159) enunciates that it accounts for 13.7% of national output. Population figures from the latest national census (2011) reflect a total of 4 434 827 residents and a population density of 2696 people/km² (StatsSA, 2012). Established in 2002 after an agglomeration of a number of former local authorities, it is the largest metropolitan municipality in the country.

In spite of its vivid profile, the municipality remains confronted by a plethora of spatial development challenges. The spatial legacy of apartheid continues to manifest itself in many different ways across various communities. Consequently, the municipality has in recent years formulated a number of frameworks and strategies aimed at not only addressing its spatial and socio-economic imbalances, but
also charting a sustainable developmental path for the medium to long term. The Spatial Development Framework (SDF), revised in a periodic cycle of three years, embodies the spatial vision of the municipality and captures the essence of how this vision will be achieved. Various other strategies such as the ‘2010 Growth Management Strategy (GMS)’ and ‘Growth and Development Strategy (GMS) 2040’ reflect the municipality’s commitment towards progressive spatial transformation and thwarting socio-economic barriers and inequalities. “These objectives are unpacked into strategies emphasising an efficient movement system, with a focus on public transport; promotion of mixed use nodes and corridors linked to public transport; strategic densification, particularly around these areas of focus, among others” (COJ, 2008 in Alison Todes, 2012:162).

As part of its attempts toward attaining these objectives, the municipality has embarked on a new spatial vision: ‘The Corridors of Freedom’. The concept was introduced in May 2013 by Executive Mayor Mpho Parks Tau in his State of the City Address and has since become a mantra. These particular corridors are envisaged to be “…well-planned transport arteries linked to interchanges where the focus will be on mixed-use development – high-density accommodation, supported by office buildings, retail development and opportunities for leisure and recreation” (COJ, 2013). Central to achieving these imperatives is Transit Oriented Development (TOD). Although a relatively new concept in the context of South Africa, the benefits of adopting a TOD approach in spatial transformation are well documented. Its nexus to place-making has equally become an area of active research in the planning field. The central theme of this paper is premised on these two concepts.

2. LITERATURE REVIEW

2.1 Spatial transformation

The Oxford dictionary defines transformation as “A marked change in form, nature, or appearance”. Over the years, the interpretation of this term has developed to embody various other overlapping terms such as ‘transition’, ‘change’, ‘innovation’, ‘evolution’, ‘revolution’, ‘breakthrough’, etc. (Yan Yang, 2010:26). What is central to the process of transformation nonetheless is the notion of change; manifesting itself through a number of dimensions. In view thereof, spatial transformation has been used to describe a structural change of a city in terms of its demographic, social, and spatial structures as a result of industrialisation, globalisation, and urbanisation processes (ibid:4).

In the South African context, the spatial configuration of settlements was previously influenced by apartheid planning legislation. However, planning at that point in time was premised on legislation that discriminated along racial lines. Through the Group Areas Act, “Everyone was to be officially classified into racial groups, and all would have to live in areas specifically set aside for the exclusive occupation of a legally defined group” (Christopher, 1992:571). This was essentially apartheid’s organising principle which consequently shaped the structure of South Africa’s cities. As asserted by Schensul and Heller (2010:1), “it is widely acknowledged in urban sociology that space reflects and reinforces inequality and nowhere is this more obviously true and trenchant than in South Africa”. The eradication of apartheid in the dawn of democracy in 1994 impelled a number of strategic interventions by governing authorities to address and redress these spatial development challenges. This has manifested mainly through various legislative measures and policy initiatives to facilitate and expedite the elimination of structural effects of colonial planning of more than 300 years (Williams, 2000:178). Consequently, the concept “transformation” has become central to social change in South Africa (ibid:168). Underpinning this transformation is a;

“…vision of a non-racial, non-sexist, democratic spatial order where different forms of geographic space, socialized through a specific configuration of social relations/ experiences of work, residence, recreation and cultural heritage, amongst others, are readily accessible to most citizens (RSA, 1998 in Williams, 2000:169).

Nonetheless, undoing the effects of decades of spatial inequality and colonization will not be an easy enterprise. According to Schensul and Heller (2010:3), spatial fragmentation and social polarization have continued to increase despite sustained efforts to counter spatial inequalities in
post-apartheid South Africa. Urban sprawl is also on the increase, perpetuated by decentralization, deindustrialization, suburbanization and greenfield developments which extend and even heighten historical inequalities, marked at one extreme by high-end gated neighborhoods, and distant informal settlements at the other (ibid:3). In the viewpoint of Bremner (2000) and Harrison et al. (2003) all cited in Schensul and Heller (2010:3), the local government has also not been entirely effective in the promotion of racial or economic desegregation. The argument being that the provision of affordable housing through green developments on the periphery has actually exacerbated the apartheid spatial form and reinforced racial exclusion (Schensul and Heller, 2010:3).

Drawing conclusions from the above, conventional approaches in remedying the spatial legacy of apartheid have not been entirely effective in fostering sustainable spatial transformation. This, coupled with the inefficiency of many local governments, has consequently exacerbated the current realities of spatial inequalities and equally prompted for novel and pragmatic approaches that are more sustainable in the long run. In recent years, there has been an increasing interest in the Transit Oriented Development (TOD) model as the possible course of action going forward. A growing number of literature and practice also demonstrates the social, economic, and environmental benefits of adopting TODs within cities.

### 2.2 Transit Oriented Development (TOD)

Through his book ‘The Next American Metropolis; Ecology, Community, and the American Dream (1993)’, Peter Calthorpe laid the first foundations for what has become one of the most influential concepts in urban planning theories: Transit Oriented Development (TOD). Its adoption has manifested as a sustained effort aimed at addressing a number of challenges emanating from auto-oriented developments; challenges of which include traffic congestion, increased automobile usage, greenhouse gas emissions, and inadequate access to public transit (Calthorpe, 1993; Dorsey and Mulder, 2013). Essentially, TODs are “…higher density mixed use residential and commercial developments set within walking distance of key transit nodes such as rail or bus stations or around activity centres such as major shopping centres/offices (Bhishna et al., 2005:2). In view, the main objective of TOD is to encourage a modal shift from auto usage to more sustainable forms of transport such as public transit and non-motorised options such as walking and cycling.

Also central to the process of TOD is the integration of transport and urban development (land use). In so doing, it is envisaged that new development would thus be “located where everyone can access services or facilities on foot, bicycle or public transport” (Office of the Deputy Prime Minister, 2005 in Curtis, 2012:83). This integration is one of the most promising means of reversing the trend of automobile-dependent sprawl and placing cities in developing countries on a sustainable pathway (Suzuki et al., 2013).

### 2.3 The six “Ds”

In TOD, the ‘D’ variables are considered very crucial in planning and implementation. The paper discusses the six ‘D’ variables namely: Density, Diversity, Design, Destination Accessibility, Distance to Transit, and Demand Management. Bernick and Cervero (1996) pioneered the first three “Ds”, namely, ‘Density, Design, and Diversity’. With growing complexities in urban systems over the course of time, three more Ds have gradually been added to address contemporary urban transport in cities.

#### 2.3.1 Density

Santos et al. (2010) assert that density is recognized as a fundamental aspect in developing sustainable transport due to its effect on a number of factors. Basically, density refers to the number or concentration of opportunities per square kilometre or another surface indicator, such as dwellings, households, people and jobs (Van Wee, 2002). In view, thereof, higher
densities translate to higher concentrations of opportunities per given area. As noted by Kenworthy and Laube (1996:281), “high densities tend to be associated with lower average trip distances for all modes, improved public transport through higher potential patronage around each stop and in particular, enhanced viability of walking and cycling”.

2.3.2 Diversity

Diversity refers to the mix of various land uses, the degree to which these uses are balanced, as well as the variety of housing types and mobility options available (Suzuki et al., 2013:175). A diversified city in this context is thus “mixed in income, mixed in use, and actively supportive of places that commingle people of different races, ethnicities, genders, ages, occupations, and households” (Talen, 2006:234). According to Jane Jacobs (1961:161-164) in Montgomery (1999), there are two dimensions to diversity in relation to land uses:

- Primary uses: these act as ‘people attractors’ since they bring people to specific places. Examples include offices, residences, places of learning, recreation etc. The primary objective would be to integrate all these uses in a single node. Strategic nodes should be identified where city features are concentrated and high density, mixed land-use developments are clustered, especially those that provide a service to the community
- Secondary uses: these are more of complementary enterprises and services that grow in response to primary uses (Montgomery, 1998).

2.3.3 Design

Design includes “carefully articulated land-use mixtures; safe and smooth accessibility to transit stations (enabled by foot paths, cycle paths, and street lights, for example); and amenities such as benches, parks, landscaping, and libraries – which all contribute to the development of a good built environment” (Suzuki et al., 2013:39). The design of neighbourhoods can also play a role in developing a model of sustainable mobility for cities, by allowing a key role for walking and cycling through appropriate planning and design (Santos et al., 2010).

2.3.4 Distance

It refers to the distance that a commuter has to walk to the transit station. As noted by Suzuki et al., 2013, cities designed to reduce travel distances encourage walking, cycling, and use of the public transit system. “Cities of short distances” are also cities with lower levels of air pollution, energy consumption, and carbon emissions. In the long term, efficient urban form makes cities more economically competitive and environmentally sustainable. It also helps build social capital by allowing people from all walks of life to come into regular, day-to-day contact with one another (Suzuki et al., 2013).

2.3.5 Destination accessibility

Essentially refers to the ease of traveling from one place to another (Cervero and Seskin 1995). The vision of destination accessibility focuses primarily on the introduction of rapid buses as opposed to orienting land-use activities to the busway. “Improved accessibility is to be achieved by moving people around the city more swiftly, not by bringing urban activities closer together” (Suzuki et al., 2013). BRT has been demonstrated to provide efficient and effective public transport that can even increase transit ridership and attractiveness within defined urban corridors in both developing and developed countries (Wirasinghe et al., 2013).

2.3.6 Demand management

“Demand Management can be defined as any activity, method or program that reduces vehicle trips, resulting in more efficient use of transportation resources” (Dorsey, 2005 in Rahman and
Al-Ahmadi, 2010:174). According to Zhao et al., (2008:584), travel demand strategies include putting more people into fewer vehicles “(through ridesharing, increased public transportation ridership, or dedicated highway lanes for high-occupancy vehicles), shifting the time of travel (e.g., through staggered work hours), and eliminating the need for travel altogether (e.g., through telecommuting)”.

There is however a number of obstacles that can impede the successful planning and execution of TODs. As noted by Dorsey and Mulder (2013), the influence of TOD on revitalisation is not always guaranteed, and neither is its planning and implementation straightforward. Conflict of interests can also obstruct the process of TOD. In the context of current planning approaches in which development is driven largely by private interests while the local government sets the rules of the game in terms of zoning and land use regulations, a great deal of cooperation and coordination between all stakeholders cannot be emphasised enough.

To this end, working towards the implementation of a TOD strategy needs to be envisioned though a regional lens and planned at the municipal level. Against this, TOD planning must be cast in a context that provides opportunities to cater to a wide audience of beneficiaries in terms of housing preferences, socio-economic development, high quality living environments, and public transit, among others.

2.4 Place making

Fundamental to Transit Oriented Development is the notion of ‘place making’. Dorsey and Mulder (2013:65) capture this quite eloquently, “The vision of a place can influence transit decisions, just as transit literally impacts the shape, flow, and interactions within a place”. The place-making concept can be traced back to ideas of rethinking city spaces, such as the need for increased vitality in the central part of a city, or greater “eyes on the streets” as articulated by sociologist Jane Jacobs (1961 in Dorsey and Mulder, 2013:65). (Pierce, et al. 2011:54) define place making as “…the set of social, political and material processes by which people iteratively create and recreate the experienced geographies in which they live”. Place-making is also the process of appropriating space in order to create a ‘mirror of self’ (Cooper Marcus, 1995: Friedmann, 2007:259 in Lombard, 2014). The quote below captures the essence of how Relph (1976:i in Lombard, 2014:12) encapsulates place-making as a ‘mirror of self’,

“distinctive and diverse places are manifestations of a deeply felt involvement for those places by the people who live in them, and...for many such a profound attachment to place is as necessary and significant as a close relationship with other people.”

In view, thereof, there are essentially three elements that characterise successful urban places, namely, physical space, the sensory experience, and activity (Montgomery, 1999:95). In his book ‘The Production of Space’ (1974/1991) Henri Lefebvre adopts a conceptual triad in explaining how these elements influence the social production of space. He distinguishes between spatial practice, representations of space, and representational space as discussed below.

2.4.1 Spatial Practice

Encompasses social production as well as reproduction and the specific locations and spatial forms that characterize a particular social formation (Simonsen, 2005:524). In the viewpoint of Merrifield (1993:524), spatial practices “…secrete a society’s space…and ultimately structure daily life and a broader urban reality.” This is perceived space and refers to concrete spaces encountered in the everyday life. Typical examples would thus primarily include such aspects as the urban fabric or form and land use zones.
2.4.2 Representations of space

Denotes a society’s knowledge of space and conceptual imaginations of space. It is thus conceived space which denotes mental constructions of space, creative ideas about and representations of space (Purcell, 2002). Professionals such as Planners and Engineers, in particular, are at the forefront in the conceptualization and construction of this space.

2.4.3 Representational Space

More or a less a combination of the other two triad elements discussed above. Carp (2008:135) captures it quite well “…it infuses both physical space and mental space; it is something else but never distinctly so.” This space is lived and ultimately influences an individual’s experiences of space in the everyday life.

The three elements are mutually inclusive and collectively influence the production of space and experiences of the everyday life.

Adapted from Carp, 2008

The purpose of this review was to provide a theoretical underpinning for the study. The review alluded to the importance of TOD in spatial transformation processes within transit areas in particular. The subsequent section established a nexus between TOD and place making. The review indicated that these concepts are interconnected and influence each other. In as much as transit decisions influence the shape of a place, so does the shape of a place on transit decisions. Based on the discussion above, the diagram below identifies a number of elements that are central to place making.
3. OBJECTIVES /RESEARCH QUESTIONS

The key aim of the present study is to investigate place making determinants for Transit Oriented Development. An important consideration of this study is cognisance of the fact that these nodes are already in a saturated state of development, making it a rather challenging and contentious task to implement TOD thereof in contrast to starting on empty land. The paper thus seeks to establish the perceptions of residents regarding the implementation of TOD, culminating in the selection of key-determinant indicators in the said corridor.

4. APPROACH & METHODOLOGY

The use of relevant research approaches and methods is justified by the research objectives at hand. In light of the overall objective of this study, i.e., to establish public perceptions of TOD and determinants thereof – the study adopts a mixed methods approach. Sale et al. (2002:44) state that combining qualitative and quantitative methods in a single study is widely practiced and accepted in many areas of research. The study employs a qualitative case study approach while the quantitative dimension finds expression in the orally administered questionnaire. The diagram below illustrates the phasing and overall framework that was adopted in carrying out the study.

4.2 Questionnaire design

The heart of a survey is its questionnaire (Krosnick and Presser 2010:263). In this study, a structured and orally administered questionnaire was used. The format of the questionnaire consisted of four structured sections which comprised of close ended type of responses. The first section consisted of questions aimed at profiling the demographic details of respondents. Section two is the crux of this study and was divided into six sub-sections, which were informed by the 6Ds of TOD. The last section of the questionnaire required survey participants to score and rank the

Diagram:

- Literature Review
- Theoretical Foundations (TODs)
- Questionnaire (Variables)
- Data Collection (Primary Survey)
- Data Analysis
- Conclusion (Place Determinants - TOD)
relevance of specific themes for each “D” variable. Personal contact details of respondents were not solicited.

4.3 Data collection and analysis

A questionnaire was used for data collection. Bird (2009:1307) citing Bulmer (2004) asserts that a questionnaire is “a well-established tool within social science research for acquiring information on participant social characteristics, present and past behaviour, standards of behaviour or attitudes and their beliefs and reasons for action with respect to the topic under investigation.” Questionnaires surveys were thus undertaken in the relevant study areas whereby respondents were randomly approached (convenience sampling) in person and asked to participate in the survey. Observations were also employed and the technique used thereof were photographs. The sample size (24 respondents) for this study was drawn from community members within the respective nodes. With regard to data analysis, descriptive statistics on MS Excel were used.

4.4 Research setting

A wide range of both small scale and city-wide-impact projects have become a common feature in major cities aiming to maintain and enhance their global competitiveness while simultaneously facilitating socio-economic progress. Affectionately known as the ‘Corridors of Freedom’, the City of Johannesburg is embracing these transit oriented developments as the main premise for addressing and redressing the spatial legacy of apartheid. As indicated earlier, these corridors are envisaged to substantially transform the spatial landscape of Johannesburg and in the process promote sustainable development through mixed land use (of high density) complemented by high quality public transit. A number of these corridors have since been identified for both the medium and long term, respectively.

Table 1 – Identified ‘Corridors of Freedom’

<table>
<thead>
<tr>
<th>In the medium term - 2016</th>
<th>In the long term – 2040</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soweto to CBD along Perth Empire</td>
<td>Sandton/Randburg to Diepsloot</td>
</tr>
<tr>
<td>CBD to Alex</td>
<td>Alex to Ivory Park</td>
</tr>
<tr>
<td>Alex to Sandton</td>
<td></td>
</tr>
<tr>
<td>Turfontein node</td>
<td></td>
</tr>
<tr>
<td>Mining Belt</td>
<td></td>
</tr>
</tbody>
</table>

Source: City of Johannesburg, 2013:6

In the 2013/14 financial year – the Soweto to CBD corridor along Perth Empire, CBD to Alex corridor along Louis Botha, and Turfontein corridor were respectively identified as priority corridors. Construction works along the Perth Empire corridor have been completed and the Bus Rapid Transit (BRT) service is in full swing. The Louis Botha development corridor has been taken as the second phase of the project, with construction works therein currently underway. Since the main objective of this study is to ascertain TOD perceptions in terms of planning and implementation, the Louis Botha development corridor was selected as the unit of analysis since it is currently undergoing a TOD initiative. Studying the entire stretch of the corridor was however not possible. As such, we had to identify three specific nodes located along the corridor to conduct this study (see section 4.5 below). The location of the corridor within the context of the City of Johannesburg is illustrated in Figure 1 below.
Figure 1 – Locality of the Louis development corridor

4.5 Study areas

Selecting the three nodes for this study was achieved through GIS data analysis. The data used was specific to the primary objectives of the ‘Corridors of Freedom’ along Louis Botha. In this regard, the first step was to analyse the proposed footprints of ‘mixed land use’ and ‘densification’ focus along the whole stretch of the corridor (see Figure 2 below). An analysis of existing economic nodes along the corridor was also carried out. Following this, an indicative set of three indicators was formulated and subsequently used to identify those nodes that satisfied all the conditions of this set as explained below.

Firstly, the node would have to be identified as a potential area for future densification. GIS data was used to ascertain this requirement for each node. Secondly, the node would similarly need to be identified as a potential focal area for future mixed land use. The last condition required that the node be classified as a non-economic node. This analysis culminated in the selection of Orange Grove, Balfour, and Bramley as shown below.

Figure 2 – Selected case study nodes
The 2010 Regional Spatial Development Framework (RSDF) for Region E states that Louis Botha is a mobility spine “…characterised by offices, retail, small-scale enterprises and nightclubs. Constraints include a lack of parking, burgeoning nightclubs and illegal activities. The street requires constant law enforcement and intervention with regard to building control, the management of illegal activities on the street and infrastructure” (COI, 2010). The issues identified above were found to be of varying degree across the three selected nodes.
The Orange Grove node is predominantly residential. However, there is a high concentration of small scale ground floor businesses situated immediate to Louis Botha (Figure 3). Characterised by depilating building structures, the node is showing visible signs of infrastructural ageing and deterioration. In addition to illegal uses as asserted in the RSDF for Region E, parking is also a major challenge in this node. Current measures through curb side parking are not adequate given the business significance of the node.

Figure 3: Orange Grove node

Bramley is also characterised by a footprint of residential dwellings. Unlike the Orange Grove node however, this residential component is of a small scale. The node is complemented by a variety of different uses such as shops, small retail centres etc. Located adjacent to the industrial node of Wynberg, it does not come as a surprise that this particular node has seen a gradual spillage of some industrial activity directly from Wynberg.

Figure 4: Bramley node

Similar to other nodes located along the corridor, redevelopment of certain segments of the Bramley node is essential.

Figure 5: Balfour node

Balfour is located just in between Orange Grove and Bramley. It is classified as a district node according to the 2010 RSDF and has been identified as a future intensification area for non-residential development. Construction works for the proposed Bus Rapid Transit (BRT) service are clearly visible in the image.
The diagram below illustrates the current zoning of properties along the entire stretch of the Louis development corridor.

Figure 6 – Zoning along Louis Botha

Orange Grove and Balfour are predominantly residential in character, though prevalent with bits and pieces of small scale business enterprises in specific locations. The Bramley node exhibits high levels of business activity alongside a small footprint of residential uses.
5. RESEARCH ANALYSIS & FINDINGS / RESULTS

5.1 Demographic details

The table below summarises the demographic distribution of respondents who participated in the survey.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>13</td>
<td>11</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>&lt;18</th>
<th>19-36</th>
<th>36-55</th>
<th>&gt;55</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>17</td>
<td>7</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Nationality</th>
<th>South African</th>
<th>Non-South African</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>20</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Race</th>
<th>Black African</th>
<th>Coloured</th>
<th>Indian/Asian</th>
<th>White</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>19</td>
<td>1</td>
<td>4</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Marital status</th>
<th>Single</th>
<th>Married</th>
<th>Divorced</th>
<th>Widowed</th>
<th>Separated</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15</td>
<td>7</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Residential status</th>
<th>Local Resident</th>
<th>Visiting</th>
<th>Different locality</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>14</td>
<td>8</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education</th>
<th>No schooling</th>
<th>Primary school</th>
<th>Secondary school</th>
<th>Grade 12/Std 10</th>
<th>Higher (Graduation)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>9</td>
<td>10</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Employment</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15</td>
<td>9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Monthly Income</th>
<th>&lt;3000</th>
<th>3000&lt;5000</th>
<th>5000&lt;7000</th>
<th>7000&lt;10000</th>
<th>&gt;10000</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7</td>
<td>6</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Physical disability</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>24</td>
</tr>
</tbody>
</table>

5.2 Corridor determinants
This section was intended to ascertain the perceptions of residents through a status quo analysis type of questions which were based on the 6Ds of TOD. The survey results have thus been arranged categorically in terms of Diversity, Density, Distance, Design, Destination, Demand management and are analysed in succession.

### Diversity

Diversity is a critical aspect in TOD. Essentially, it captures the vitality and land use assortment of a node. 83% of the responses indicated that the land uses within the respective nodes are diversified. On the other hand, there was less satisfaction with the vitality of these nodes in terms of activities such as concerts, events, markets; that is to say, entertainment. There is also an apparent lack of areas that cater to specific social groups such as the youth, senior citizens, etc. These kind of social encounters add a special touch to TOD within nodes. High activity ground floor uses equally form a fundamental aspect to TOD. Within the study nodes, 58% of the respondents agreed that there are high activity ground floor uses thereof. The researcher also used personal observation to ascertain this aspect by taking photographs. It was observed that the level of ground floor uses varies from one node to the other. The Orange Grove node has the most intensity of ground floor uses compared to the other two nodes.

### Density

Density provides an indication of how well land uses are located in relation to public transit. In this section, the intention was to establish whether patterns of development in the nodes are in cognisance of the current global awareness for higher density development. Half of the respondents indicated that development within the nodes indeed follows a high density pattern while 29% disagreed. The remaining 21% of respondents were unsure. This aspect of TOD also has implications on automobile ownership and usage. Higher densities may discourage the use of private vehicles (not necessarily ownership) since it substantially reduces the distance to facilities and services. 38% of respondents own
a car and indicated that it is their main mode of transport used for making different trips. Although some respondents indicated that they do not really own a car, they however did indicate that they do own a parking space.

**Distance**

In terms of transit proximity, the bar graph indicates a rather high percentage of respondents who feel satisfied thereof (83%). The second graph translates this satisfaction in terms of time taken to reach a transit service. 92% fall within the range of less than 5 minutes to 15 minutes of walking time to transit, indicating a high level of existing public transport services. Although this was not provisioned in the questionnaire, it was noted that the idea of a new public transport service like the BRT did not resonate well with many respondents. The high number of satisfaction with existing transit could perhaps be the explanation for this positionality.

**Design**

In addition to facilitating access to different services and amenities, TOD is also about designing high quality and attractive environments. This section of the questionnaire sought to determine the perceptions of respondents with regard to the overall design character of the nodes. An average of 71% responded that the nodes are well planned and designed in contrast to 50% responses that indicated a
dissatisfaction with the current land use pattern. This comparison is premised on the argument that land use patterns play a major role on the overall quality of the nodes in terms of design. Parking is also one critical aspect that is a major challenge in the nodes. As shown in the graph, 71% of the respondents indicated that there is not enough public parking in these nodes. Another important dimension of ‘design’ is that it must also facilitate easy manoeuvring for people with disabilities. In this study, 58% of the respondents pointed out that the current design of the environment does not facilitate for this manoeuvring.

**Destination**

An ideal TOD node is characterised by a variety of mixed use developments that are easily accessible. From the bar graph above, 71% of the respondents expressed satisfaction with the current mixture of uses along the three nodes, indicating a good potential for TOD within these nodes. With regard to public transit, 79% of the respondents are of the opinion that there is adequate public transit in the respective nodes. An analysis of the type of main modes of transport used revealed that the minibus taxi is used more often than other modes (Metrobus and PUTCO). There can be various reasons thereof. In line with theory and practice nevertheless, the importance of a high quality public transit service cannot be emphasized enough in encouraging a modal shift. Walkability and cycling are also crucial elements in TOD. As noticeable from the graph, a lack of cycling areas is a major challenge within the subject nodes. Although walkability is well above the average (67%) in terms of satisfaction, there is still a scope to improve on this aspect.

**Demand management**
As reflected in the graph above, an overwhelming percentage of respondents (88%) make use of public transport. As also indicated earlier, minibus taxis are the main mode of transport used. However, 68% of the respondents are not content with the space that is allocated for transport, walking, and cycling. This is broken down as follows. In terms of transport, it has been indicated above that it is adequate within the relevant nodes. Notwithstanding this, the main concern is the little space that has been allocated for it. A well-documented problem of poor capacity roads is traffic congestion, which at times contributes to road fatalities. With that said, an environment that offers a high quality walking and cycling scape is also a key objective of demand management. The responses of participants surely indicate that there is not adequate space allocated for these important aspects. The problem of inadequate parking has already been well articulated above. 75% of respondents indicated that multi storied parking could be a solution to the problem. There is great potential for the promotion of carpooling facilities which can also go a long way in reducing parking pressures.

To this end, the analysis above indicates that the Louis Botha development corridor exhibits a high level of transit service. However, in as much as high levels of transit do not necessarily equate to efficiency, the undertaking of TOD extends far beyond issues of only transit functionality. For instance, although good design principles might not necessarily have a direct effect on transit riding, they nevertheless have a profound effect on the quality and attractiveness of a transit area. Eventually, transit ridership levels are most likely to increase as people will naturally be drawn to these high quality and attractive areas.

5.3 Perceptions and scoring

In section four of the questionnaire, respondents were afforded the opportunity to indicate the importance of several themes for each respective “D” variable of the 6Ds. As such, respondents were asked to score the relevance of these particular themes in TOD based on a predetermined scale. The graphs below summarise the results attained thereof for all the six “Ds”.

Distance

From the graph above, the importance of transit proximity, walkable environment, and less walking time is well emphasized by virtue of the high scores recorded for these categories. None of the respondents considered these as least relevant. Drawing conclusions from this trend, distance to transit (5-10 min) in terms of walking time resonated well with the respondents.
One of the key objectives of TOD is the attainment of a compact urban form with a variety of mixed land uses. Arguably, high activity ground floor uses also play a fundamental role in accomplishing this goal. However, only 29% of respondents rated such uses as highly relevant while 29% scored them as ‘slightly relevant’. This is to be expected since one only finds a significant number of ground floor uses in the Orange Grove node while the other two nodes have smaller footprints in this regard. One would thus conclude that there is lack of a general understanding of the importance of these uses.

**Design**

![Diagram showing design ratings](image)
A general inference from the graph above is that design is very critical in TOD. 83% of participants agree that a well-planned and designed area is highly relevant when undertaking TOD. This includes, inter alia, adequate street design elements such as sidewalks, transit stops, comfortable waiting areas, adequate place signage that is conspicuously placed, a cityscape that is well suited to people using wheelchairs and other human assistive devices for the disabled. The mobilisation of communities in planning matters and decisions that affect them (community voice) was similarly scored as highly important.

**Destination**

A blend of adequate public transport and a compact urban form with a variety of land uses is an important indication of the destination accessibility of a corridor. A mixture of different land uses brings many services and facilities in close proximity, consequently facilitating easy access by transit, better yet by walking and cycling. In the graph above, the categories of ‘mixed used development’, adequate public transit’, ‘access to parks’, and ‘access to adequate housing’ have been scored as ‘highly relevant’ by respondents. This is a good indication of the importance for land use and transport integration in corridor planning. Taking cognisance of this imperative offers benefits associated with not only an improvement in the overall quality of the environment, but that of life as well.
In terms of density, the results reveal some stark realities. A mere 21% of respondents consider high density development as highly relevant in the nodes. A slightly bigger proportion of 38% feel neutral while 8% see high density development as least relevant. Vehicle ownership and a personal parking space were scored as highly relevant. This trend needs to be seen as a potential threat toward achieving a modal shift to public transit. A low score was also recorded for residential, commercial, and institutional developments. The three categories all score a little under the average in terms of their relevance (46%, 46%, and 38%, respectively). This might suggest that there is already a reasonable supply of these development types within the nodes.

### Demand management

In terms of demand management, the results highlight the importance of various factors. Taxi, Metro Bus, PUTCO, Rea Vaya, and Gautrain are highly relevant, indicating their importance in public transport. Own vehicle and adequate drop-off zones in nodes also score highly, suggesting the need for private transportation options. Nodes well served with public transport and space for public transit, walking or cycling are also highly relevant, emphasizing the need for efficient and accessible public transport infrastructure. The use of car-pooling facilities and shared car-parking facilities is also highly relevant, indicating the importance of car-pooling strategies to reduce traffic congestion. Multistory parking facilities score highly, indicating the need for multi-level parking solutions to accommodate increasing vehicle ownership.
Public transit is very crucial in corridor development. 79% of participants scored the different modes of public transit as highly relevant in the nodes. Adequate parking was also scored highly (75%) in terms of relevance. In light of current challenges related to parking as alluded to earlier, the importance of parking planning and management cannot be emphasised enough. A high percentage (46) of respondents consider curb side parking as the best alternative to other parking management methods such as shared car parking and multi-story building parking facilities, respectively. The central theme of demand management nevertheless is to reduce vehicle trips. Increasing the share of public transit is thus of paramount importance.

While the City of Johannesburg has embarked on its ‘Corridors of Freedom’ (synonymous with Transit Oriented Development) vision, an analysis of perceptions regarding TOD reveals a rather poor awareness of the broader picture among the public. Although the importance of a well-planned and designed area was well emphasized by most respondents, other critical TOD elements such as shared parking facilities, carpooling, and multi-story parking were not so favoured.

6. RESEARCH CONTRIBUTION

The contribution of this study is twofold. Firstly, it provides empirical findings of the perceptions of residents regarding TOD in the case study nodes. In the prologue of the objectives of this study, it was mentioned that undertaking TOD in built up areas is a complex enterprise. The study has been able to establish how residents understand TOD and what they consider crucial in the development of their neighbourhoods. Secondly, the study provides a set of useful determinants that can be used to prioritise the deliverables of TOD initiatives. Although not intended to be a standard reference point, this set reflects a widely recognised importance of specific determinants in TOD and place making.

7. CONCLUDING REMARKS

Questionnaire surveys were conducted in three nodes located along the Louis Botha Development corridor to discover the perceptions of residents regarding TOD planning and implementation. Analysing the collected data provided some useful insights in this regard and made possible the identification of several common points. In view, while increasing public transit ridership is a critical aspect of TOD, it should not however be considered as an end in itself. Embarking on TOD projects equally requires a critical reflection on various other implications associated with such development around the transit areas, e.g. facilitating an affordable housing stock, improving the attractiveness of the area and so forth. In order for the City to gain support and community ownership of envisaged TOD initiatives, the critical importance of strengthening community participation cannot be emphasised enough. In sum, the research study provided a detailed insight on the key determinants that were identified most critical in TOD and place making within the nodes. The selection was informed by the high scores recorded for these determinants in terms of their high relevance to TOD:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>6Ds</th>
<th>TOD - Place Making Determinants</th>
<th>Respondents Score: Highly Relevant (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Destination</td>
<td>Access to parks</td>
<td>75%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adequate public transit system; and access to adequate housing</td>
<td>71%</td>
</tr>
<tr>
<td>2</td>
<td>Design</td>
<td>Well planned and designed areas</td>
<td>83%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Community voice and involvement</td>
<td>75%</td>
</tr>
<tr>
<td>3</td>
<td>Density</td>
<td>Vehicle ownership</td>
<td>75%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Personal parking space</td>
<td>71%</td>
</tr>
<tr>
<td>4</td>
<td>Distance</td>
<td>Proximity to transit area; and walkability time (5-10 min)</td>
<td>75%</td>
</tr>
<tr>
<td>5</td>
<td>Diversity</td>
<td>Proximity to amenities</td>
<td>75%</td>
</tr>
</tbody>
</table>
Retail and service facilities; Commercial centres; and utilization of public facilities | 71%
---|---
Demand Management | Public transport facilities (Taxi, Metro Bus, Rea Vaya, Gautrain) | 79%
Sufficient parking in nodes | 75%

Although a huge proportion of respondents felt there is a need for more parking spaces around the nodes, they are however reluctant with the introduction of parking management strategies such as shared and multi-story building parking facilities, respectively. Other important aspects such as carpooling were considered least relevant.

8. RESEARCH LIMITATIONS

The research settings of the study were premised on specific population and sampling requirements. In other words, the replication of the same requirements in a different research setting may produce different results depending on the place specific land use and other determinants. As such, the extent to which the study findings can be generalised to other corridors necessitates further investigation. The sample size used in the study also covered a small proportion of the population in the selected case study nodes.

9. FURTHER RESEARCH

Although the study presents empirical findings of public perceptions toward TOD, further research is nevertheless required to verify whether the same findings can be generalised for other corridors as well. Larger samples will also be required in this regard. The present study gauged public perceptions in the context of nodes that are currently undergoing a TOD initiative. Further research thus needs to consider and evaluate the effectiveness of TOD in the subject nodes along the project corridors.

10. ACKNOWLEDGEMENTS

The authors would like to acknowledge Mr. Paul Hanger (Iyer Urban Design Studio) and Mr. Thuthuka Mzimela (City of Johannesburg) for extending their support during the research study.

11. REFERENCES


Yang, Y. 2010. Sustainable urban transformation driving forces, indicators and processes. Theses, University Weimar.

Place Making in Tourism-led Local Economic Development (LED): A Case Study of Coffee Bay, Wild Coast, Eastern Cape Province, South Africa

Sinovuyo Babalwa Sitinga ¹, Aurobindo Ogra ²

¹ Research Student, ² Lecturer
Department of Town and Regional Planning
Faculty of Engineering and the Built Environment
University of Johannesburg, Beit Street, Doornfontein
Johannesburg- 2028, South Africa
Tel: +27-11-5596131, Fax: +27-11-5596630
¹ Email: ssitinga@gmail.com, ² Email: aogra@uj.ac.za

Abstract

On the East Coast of South Africa, on the warm waters of the Indian Ocean, lie the shores of Coffee Bay town. This small predominantly rural beach town beams with multitude of tourism potential. The town prides itself for its magnificent beach, hotels, and tourism activities like: horse riding, hiking and boasts of other tourism facilities and attractions. Besides tourism potential this small town faces number of challenges. The majority of the town’s economically active population is illiterate, unemployed and lives under the poverty line. The town on its own is a pot of gold; however, the community needs to be more involved in the decision making for developments within the town, as well as encouraging of pride of citizenship. This would ensure maximum benefit for residents, in terms of economic growth, access to opportunities, betterment of livelihoods, etc. In the pursuit of Tourism-led Local Economic Development (LED) oriented growth in Coffee Bay, the place making determinants becomes central in order to address the number of challenges faced by the local communities.

Place making determinants and processes applicable to the area entails optimal use of resources that are unique to an area, for the economic (increased investment in the area, rise in tourists coming in, improved environments for fishing, establishment of a fully functional and beneficial fishing industry), social (improved well-being of local residents), community (infrastructure and livelihood within the town) and otherwise benefits. The paper discusses the place based tourism-led approaches in the context of rural communities and highlights the key determinants of place making process in a rural centric tourism-led local economic development. The research is based on mixed method approach (qualitative and quantitative) and brings out the discussion on: essence, self-sufficiency, sustainability and inclusion of communities based on locally available assets, potential and resources.

Keywords: Place Making, Tourism, Local Economic Development (LED), Coastal Tourism, Community Development, Community Engagement, Sustainable Development

1. INTRODUCTION

Rural South Africa today is faced by various impediments. These impediments come in the form of poverty, high unemployment rates, illiteracy, to mention just a few. In turn these result in a great portion of rural populations depending on government grant and support in order to maintain livelihoods. The cycle continues, and there seems as though there is no way to change it. This is typical for third world countries. However, for many, natural resources have become their main source of obtaining wealth in order to change
such consequences. According to Rob (2008), the environment and poverty is closely associated to each other especially in rural areas where the livelihood depend on the availability of natural resources within their local environment. Tourism has become one of the most favourable means through which natural resources can be used in the pursuit of local economic development. However, in this highly globalised world, tourism has become very much competitive, as there are wider ranges of choices with tourist destinations. Places therefore have to adopt ways of ensuring maximum tourist attraction to themselves, as well as ensuring that their place is a favourite tourist destination all around the world. This can be achieved through the concept of “place making”.

Seeing the need for greater economic development and revitalisation in rural areas, this paper focuses on the idea of place making for the purposes of boosting rural tourism, as a means to improve the economic and social conditions, as well as improvement of livelihoods of rural settlements. The research focuses on the rural tourist destination of Coffee Bay. It seeks to obtain information on how far the tourism sector in the area has come in the area, what attributes the area has, that make it a different place from any other tourist destination, as well as the factors that make the area viable as favourite destination, and those that might pose some constraints on the functioning of the tourism sector of the area.

2. LITERATURE REVIEW

2.1 Global Overview of Tourism

People all over the world seek some adventure all the time. This brings an advantage for tourist destinations, and tourism as a sector at large. It continues to gain popularity, and grows economically with time. Place (1995: 161) notes that tourism has remained one of the fastest growing sector in the world during past few decades. However, tourism has also been noted to work for most European destinations and not so much for countries in the South. The idea that the sector is highly associated with travel and a wide global market makes it harder for developing nations to establish their tourist destinations, particularly with regards to branding of destinations. According to Brohman (1996), there is a stiff competitiveness among the third world countries and the developed countries to attract viable number of tourists. The developed countries are well positioned in terms of better infrastructure and existing market linkages and value chains. Essentially, globalization has meant greater difficulties for any possibility of functioning of smaller tourist destinations. “Cities, towns and smaller localities located in periphery areas that are seeking to build a tourism industry must first overcome impediments associated with their location relative to the core (bigger urban areas) by offering a tempting visitor experience built on the pulling power of their visitor attractions and supported by associated tourism infrastructure.” (Fayall, A. et al. 2008). Tourists still prefer the much bigger and more famous destinations, thus putting greater pressure in terms of destination marketing for the smaller destinations. However, for host communities, this is not always an issue, as some communities believe that an influx of tourists to their areas could lead to the resources being depleted. “However, in the context of this discussion, contradicting opinions emerge, suggesting that some communities do not need nor want a type of tourism demand that is equally spread along the year. Murphy (1985:6) defends that seasonality is not necessarily harmful to all businesses and destinations. Similarly, Hartmann (1986) suggests that the low season may be the only way to guarantee total recovery from the stress imposed by excessive tourist flows in the high season on both the natural and social environment of a destination. Even from an economic viewpoint, some advantages of the low season are identified, such as the opportunity of using it for undertaking activities required to maintain the business competitive, such as the maintenance and restoration of equipment and infrastructure, as well as training courses for the staff (Grant et al., 1997, cited by Kastenholz, and de Almeida, 2008: 7).”

2.2 Tourism for Local Economic Development
Tourism all over the world has been viewed as a possible alternative for established as well as growing economies as a large contributing sector of the economy. “Tourism can contribute to economic diversification and profitability by increasing employment, improving basic services, and increasing economic equity between urban and rural populations (MacPherson, 1997, cited by, Alves, 2010 :23). It has greatly benefited, particularly in the third world, in the revitalization of rural communities. Within the South African context, Rogerson (2001a) argues that the key reason for the current interest in alternative tourism (particularly by government and development agencies) lies in the number of positive environmental, economic, social and cultural impacts associated with new tourism, not least in terms of tourism-led local economic development.

In the South African context, the lack of development of previous native homelands seems could be possibly changed through the establishment of the wild coast as a tourist destination. Ntonzima, L., & Binza (2011: 654). , notes that, “The predominantly rural area of the Transkei Wild Coast has a potential for local economic growth through tourism development.” “…… tourism expansion has consistently been promoted as a key mechanism for post- apartheid reconstruction and development in South Africa since the mid-1990s (Rogerson, 2002a; Spenceley and Seif, 2003). In particular, considerable attention has been given to the promotion of a tourism model that can assist and empower previously disadvantaged and excluded communities and individuals (Timothy, 2002).” In a country where employment opportunities are largely rare, the tourism sector has boosted the informal economic sector, through informal employment and informal business establishments.

### 2.3 Potential Resources for greater visitor attraction

Different tourist destinations have different tourism facilities to offer, depending on what the tourist requires. Some destinations are known for their natural resources, such as Cape Town for Table Mountain, and some for man-made resources, for instance Egypt for its pyramids. Rural destinations are largely dependent on their natural resources. (Fayall, et al. 2008), defines visitor attraction as “a focus for recreational, and, increasingly, educational activity, undertaken by both day and stay visitors, and frequently shared with the domestic resident population”. In the rural context, the potential resources for this attraction are mostly and usually nature-based, and culturally based. It be the beaches, or the cultural activities of the host communities.

The most popular resources in rural-coastal destinations are your beaches, the mountain ranges etc, however, potential resources also, may be tangible or intangible. In the case of rural destinations, the most demanded of the resources is the intangible. It is the tranquillity and sense of escape that is offered by the countryside, as well as the cultural exchange, between the tourist and the host community. “.Culture is much more than the rituals, ceremonies and dances residents might perform for tourists at cultural centres or visitor attractions. The richer meaning of culture refers to those activities associated with many private and unknown traditions that are part of the local persons’ daily life”, Fridgen, 1996). This statement further diversifies the notion of the tourism resource offered by the rural destination.

### 2.4 Rural Place-making as a catalyst for sustainable tourism-led local economic development

With regards to place making, the literature reviewed illustrates how places can be made, for the benefit of both the local resident and the tourist. Firstly, Bullington (2008), notes that place making is a process that largely involves the community, in order to create their own spaces, spaces they could live in, at the same time also attracting the outside world to desire to experience that particular place. He also notes how the presentation of a place in its absolute authentic nature generates more visitor attraction; tourists are now looking for “the other”, not the usual tourist destination, which any place can offer. What’s also quite important is that he notes, that places should also not be of a single purpose, instead should be of “multi-purpose”, this makes places more functional, more viable, and most importantly a lot more self-sufficient and sustainable.
The literature explores how place making can be of benefit to both the visitor and the resident. Firstly it is noted that place making creates a sense of easy connection between the visitor and the place, as it caters for both the visitor and the resident. Bullington (2008), also notes that viable places allow the place to generate revenue through tourism without disrupting the life of the local resident. As much as the environment is welcoming to the visitor, it also allows the permanent resident to “relax” in his space. What’s also important in place making for the purpose of viable tourist destinations is that, it encourages cooperation amongst all stakeholders, which produces tangible benefits such as employment, and better management of living spaces. (Fayall, A. et al. 2008), notes that place making also means that (as it attracts a wider range of tourists), the tourism sector of the particular area will not only depend on itself in order to function, but also attract foreign investment and exchange.

“Place Development creates welcoming spaces that reduce barriers and open up spaces for increased cultural and social exchange. Sustainable tourism development must plan for the needs of the visitors and the resident simultaneously. Residents should always be the primary beneficiaries of all visitor amenities in a community. Whole Place Development is for communities that want to develop tourism and generate visitor revenue without detracting from their local character. Whole Place Development does not displace local residents, but rather seeks to improve the support structure (physical as well as social) of the place in order to benefit residents of every socio-economic class. Whole Place Development is about preserving the soul of a place, while enhancing its narrative and serving its residents as well as its visitors. This process requires the cooperation of various community stakeholders, extensive research, careful planning and thoughtful implementation.” (Bullington, 2008) This illustrates how place making and branding can improve the functionality of a destination, at the same time, whilst not side lining the everyday activities of local residents.

2.5 Impacts of Tourism-led Local Economic Development to host communities

Tourism in general has been generally viewed as having positive impacts on local and hosting communities of the tourism service. Not only does it provide monetary impacts, but also intangible impacts such as cultural exchange and social diversity. “Tourism is widely recognized for its tangible outcomes (job creation, tax revenues) as well as its less tangible outcomes (quality of life)” Rosenfeld, (2008; 1).

There have been however some negative impacts as well. These impacts have been particularly prevalent in the third world countries. “The Third World tourism industry has grown rapidly, but has also encountered many problems common to other outward-oriented development strategies, including: excessive foreign dependency, the creation of separate enclaves, the reinforcement of socioeconomic and spatial inequalities, environmental destruction, and rising cultural alienation. Appropriateness of tourism strategies ought to be measured according to the changing conditions and interests of each host community; and tourism-led development should always conform to the long-term interests of the popular majority instead of the short-term goals of an elite minority. Some of the shortcomings commonly associated with the Third World tourism industry include high rates of foreign ownership contributing to a loss of control over local resources; substantial overseas leakage of tourism earnings; lack of articulation with other domestic economic sectors; low multiplier and spread effects outside of tourism enclaves; reinforcement of patterns of socioeconomic inequality and spatial unevenness; widely fluctuating earnings due to factors such as global recessions and the seasonality of tourism in some places; environmental destruction, often involving the irretrievable loss of non-renewable resources and foundation assets; and rising alienation among the local population because of problems such as increasing crime, overcrowding and overloaded infrastructures, pollution and other environmental damage, conflicts over access to scarce resources, and the perceived loss of cultural identity and social control to outsiders.” (Brohman, 1996)
The competitive nature of the sector has also made it much more difficult for rising destinations to establish themselves against their well-established competitors. “Cities, towns and smaller localities located in periphery areas that are seeking to build a tourism industry must first overcome impediments associated with their location relative to the core (bigger urban areas) by offering a tempting visitor experience built on the pulling power of their visitor attractions and supported by associated tourism infrastructure. (Fayall, A. et al. 2008).

Some scholars also note the environmental negative implications of tourism, and the pressure it places on local resources and infrastructure. This has led to various host communities favouring seasonal tourism as opposed to mass tourism. “The increasing number of tourists exploring the fragile rural destinations has led to increased environmental concerns, socio-cultural disintegration and economic inequality leading to rural destination becoming unsustainable and no longer desirable. Without careful attention to the balance between the volume and type of rural tourist activity and the sensitivities of carrying capacities of the resources being developed, tourism projects can be not only environmentally harmful but also economically and socio-culturally self-destructing.” (Nair and Hussain, 2013)

2.6 The Role of host Community engagement in the Tourism Sector

Here, the literature reviewed looks at how the involvement of local communities in the planning and running of the tourism sector can ensure its sustainability and maximum output. It recognizes community involvement as the fundamental foundation of a sustainable tourist destination. It illustrates how a community who invests in its being takes more pride in being its citizen, and therefore aims to work for its success. The local resident also gets the opportunity in the planning and making of his own living environment and space, thus encouraging the desire to invest in the place. “To attempt to pursue sustainable tourism without recognizing the critical role played by the host community and the sustainability of the destination is to build a home without a foundation. Whole Place Development, for the purposes of this article, is the dynamic process of developing public and private spaces, using the input of community stakeholders, to create a desirable, liveable place in which the community can sustain itself and flourish. If a community builds a place with its own identity, character and community presence to achieve a sustainable community, visitors will be attracted and it will generate activity, in turn benefit the region. Place Development requires cooperation by a variety of stakeholders throughout the community. A thoughtful dialog should exist in the community and all of its actors to insure they are invested in the planning and implementation of any development initiative.” (Billington, 2008).

The very contribution and involvement of host communities in the sector provides that experience of the “other”, the “escape” and the “adventure “for the tourist. “Tourism, as a dynamic and exchange process, involves a direct and reciprocal relationship between users and producers of the tourism product. This interaction component is usually the essential element which characterizes a tourism experience.” This involvement also results in the sense of ownership of the tourism resource or tourist destination, thus increasing chances of functionality over longer periods of time. “Stewardship of stakeholders enables higher community involvement in rural tourism destinations. When the local community has a share in the “business” of rural tourism, the sense of belonging is strengthened, conflict of ownership is avoided, and greater involvement or investments from the local community towards the rural destination is encouraged. The local community has the opportunity to work directly with all the other stakeholders which includes the government and non-governmental organizations in ensuring worthwhile returns from their investment.” (Nair and Hussain, 2013)
3. OBJECTIVES /RESEARCH QUESTIONS

The aim of this study is to explore place making and tourism as a means and tool for local economic development and in turn improving the lives of local residents for the better.

The objectives are as follows;

- Investigate the determinants of place making in tourism-led local economic development: communities and tourists perceptions.
- Identification of constraints and opportunities for sustainable tourism-led local economic development.

4. APPROACH & METHODOLOGY

The research involved mixed method approach (qualitative and quantitative approaches). Data collection for this research included both primary and secondary data collection: the contribution of tourism in the economy, the existing tourism facilities, and employment rates of the tourism sector, standard of living, effects of tourism to the livelihoods of local residents, etc.

- Primary Data- this was done through interviews, surveys with local residents/ communities (the tourism “service” renderer) and visitors (as the tourism target market, and or “service” recipient) and site visits.

Secondary Data- this was obtained through existing information obtained from reports, books, journals, and previous research work by scholars.

5. RESEARCH ANALYSIS & FINDINGS / RESULTS

In undertaking the study, Coffee Bay area was selected as a case study area. It was selected, specifically, because it already possesses great potential for establishing a booming tourism sector for the purposes of local economic development. Although the tourism sector in the area is somewhat seasonal, it has already “put” itself on the map as a favourable tourist destination, both domestically and globally. Historically occupied by the Xhosa tribe, the Tshezi Clan, Folktales have it that the area was named after a ship transporting coffee across continents wrecked in the area, hence the name “coffee Bay”. Coffee Bay is geographically located on the East Coast of South Africa, about 70km south of the former Transkei Homeland Capital, Mthatha. Coffee Bay forms part of a wider tourism stretch, known as the wild coast, which consists much of the Eastern Cape’s coastal areas.
Coffee Bay is a favourite holidaying destination amongst neighbouring towns, such as Umthatha, Mqanduli, and Elliotdale. The area is particularly popular for its location in relation to neighbouring tourist destinations, Port St Johns and Hole in the Wall.

The survey included fifty respondents, who were all stakeholders involved in the tourism sector of Coffee Bay area. These included: local residents, tourists, private investors, traditional leaders as well as municipal officials. 24% of the respondents were females, and 76% males. 40% of the participants were the economically active portion of the population, whilst the remaining 60% were not having relevant...
opportunities. The economically active portion are mostly informally employed in the tourism sector, at 22%, doing labour such as, fishing and tour guarding. However, a large portion, of 46% is unemployed, of which 20% solely depends on government grants as their main source of income, which is reflected by the 78% of people with an income less than a R1000, this is also because even the ones employed in the tourism sector do not make that much from the sector, depending on the season, and influx of visitors at a particular period of time.

Fig 1: Demographic Profile – Respondents

The survey revealed that 80% of visitors are attracted to Coffee Bay, merely as a destination, its relaxed atmosphere draws a large portion of visitors. The other 10% see the holidaying experience offered by the area as one other aspect that attracts visitors to the area. The findings also reflect that, tourists here spend mostly on boarding and lodging at 72%, this might be due to the lack of diversity in tourism activities in the area. Spending in Arts and Culture is at the least, this is due to lack of business entities in this sector, as only one identified formal Arts and Culture entity is present in the area. This entity is run by a local resident,

Fig 2: Socio-Economic Profile – Respondents
who has experience in the field. 96% of the respondents also noted that the tourism infrastructure in the area is “average”, which might be the reason why less investors are attracted to the area.

As mentioned above, one of the most popular visitor attractions of the area, is the beach, however, the neighbouring natural wonder of Hole in the Wall plays a great role in the amount of tourists coming into the coffee bay area. The findings reflect that, most tourists are attracted to the area by the Hole in the wall. What most stakeholders noted as only unique to coffee bay, and could be a possible unique attraction is the areas culture and heritage. They also feel that greater investment in the infrastructure of the area, so as to beautify it could possibly lead to greater visitor attraction.

As any other tourist destination, Coffee Bay faces some constraints, which could possibly pose threats to the establishment of the area as a world-wide recognised tourist destination. Amongst many, drug and
alcohol abuse was reflected to be the biggest threat. 54% of the respondents felt that the selling of drugs, by locals to tourists threatens the safety of tourists in the area, as one would usually feel unsafe in a drug infested environment. Others felt that the lack of government support and skills development within the sector reduces the growth of the sector as a possible local economic development tool. The Natural resources and attractiveness of the area are what allow for greater visitor attraction and sustainability in the sector. However, 46% of the respondents felt that the sector is not sustainable, this largely due to the seasonality of the sector.

![Tourism Opportunities](image1)

**Fig 5: Tourism Opportunities, Coffee Bay**

![Community Participation in Tourism-led LED](image2)

**Fig 6: Community Participation in Tourism-led Local Economic Development**

Although, a great portion of the population is informally involved in the sector, mostly informally. Some residents are not involved. They see tourism as an activity of the rich. A group of three women who took part in the survey had a small informal business, where they sell beadwork to visitors. This is as far as the local involvement goes, passively, and informally. All tourism entities, hotels, backpackers’ facilities, etc are largely owned by outsiders. Only one resident (of the economically inactive age group) noted that he owns a piece of land that has a backpacking facility on its premises, however, he leased the property to a
private investor who developed the facility. This goes to show the passiveness of the local residents towards the tourism sector in the area, particularly the older population.

6. RESEARCH CONTRIBUTION

From an outsider’s perspectives, the tourism sector, particularly of rural settlements does not seem to be as functional, as the research has shown. This research gives perspectives of how rural tourism destination populations go on with their daily lives, whilst also benefitting from the tourism sector of their area. Take for instance the youth who is employed in the sector in different forms, as a tour guard or a fisherman. Also, an outsider would have thought that residents in such areas actually wish for influx tourism, however, the findings have proven that rural populations place great value in the natural state of their environments, and do not wish for it to be compromised in any manner possible.

7. CONCLUDING REMARKS

Questionnaire surveys were conducted in the study area. The survey reflected that local-economic development is possible through tourism development, as much of the unemployed population in the area is seemingly only employable through the sector. The place-making seems to be to some degree established as well, as coffee bay has somewhat branded itself on an international scale as a favourable place for relaxation, although further marketing would ensure increased visitor attraction. The area is rich with indigenous Xhosa cultural rituals (such are a favourite amongst rural tourists.) Stakeholders, particularly those involved in investor attraction in the area need to focus more on cultural activities as a means to further brand the area and establish it as a Xhosa cultural hub. This for instance could be done through the establishment of cultural festivals. The survey also shows the level of satisfaction amongst all involved stakeholders. However, it also shows lack of in depth involvement in the running of the sector, particularly from local residents, which implicates much need for skills development.

From the findings, the data collected from the stakeholders prove that, further place branding, marketing and making is essential to ensure a sustainable tourism sector in Coffee Bay. However, from the respondent’s point of view, the one characteristic that makes Coffee Bay is its beach. The area also offers some intangible aspects that make it its own, unique destination, and that is adventure and tranquillity. The experience of a different sense of life style for visitors is also one thing that makes Coffee Bay a favourable destination. Those involved in the branding and place making of the Coffee Bay Destination need, also to use bigger marketing methods. For instance, the area could possibly be marketed in bigger destinations. One of the respondents had noted that, whilst he had been in Cape Town and saw some marketing of other destinations, Coffee Bay did was not as marketed as it should be.

8. RESEARCH LIMITATIONS

In the conduction of this research, the data collected entailed some limitations. For instance, because the case study was specifically for the Coffee Bay area, data collection was specifically limited to that area. The immediately surrounding tourist destinations (such as Port St Johns, Hole in The wall and Bulungula), could have given broader perspectives, as they are part of what brings visitors to the area, the three areas seem to feed on each other. The research also did not entail how these surrounding destinations have affected the functioning of Coffee Bay as a destination also. Another limitation has been that, the research is mainly focused on the functionality of the tourism sector, and not regarding the fact that tourism in such areas is highly seasonal, it does not include the implications of the off speak season, particularly for those people who largely depend on the sector for their sources of income.

9. FURTHER RESEARCH
The tourism subject is quite a dynamic one. It has perspectives and connotations of a multidisciplinary nature. A more in depth study in the subject would be of great use in the future. For instance, further understanding of what services should be provided should be related to what the target market (the tourist requires, in terms of why they are on tour), thus implicating the psychological aspects of tourism. Thus, future research should seek to explore further, not only from an economic and social point of view, but psychological, cultural, academic, and anthropological point of views.

With regards to the coffee Bay area specifically, the research needs to be expanded, and further studies should be done in terms of tourism services and products, as well as skills development. From the process, it was apparent that, much of the area’s population, though involved in the sector, is not so much involved in the formal economics of the sector. Scholars need to emphasis the study into the dynamics of skills development, as a need to improve service rendering, as well as improve the tourism products of the area in general.

10. ACKNOWLEDGEMENTS

Mr Soya of Coffee Bay, who managed to help break down the communication barrier with the researcher and the community of Coffee Bay, is greatly thanked. The community in general, particularly the participants, your contribution to this research is largely appreciated.

11. REFERENCES


Coffee Bay LSDF/Precinct Plan-Draft Report February 2013


Lanham, K. F. (April 2007). Planning as Placemaking; Tension of Scale, Culture and Identity. USA. Virginia Polytechnic Institute and State University.


Great Places – Through Integrated Planning

Kayom Wilson¹, Christopher Cripps²

¹ Email: wkayom@gmail.com/ wkayom@yahoo.com
² Email: christopher@mudonline.org

Abstract

The paper examines the effectiveness of the physical planning processes in Uganda, and questions their relationship to socio-economic plans and budgets. The ultimate goal is to ensure that urban centres develop sustainably in ways that promote development in different sectors of society. The paper highlights the missing links in the practice of physical planning as being lack of capacity, inadequacy of methods and lack of connection to other forms of planning. The implications of this for planning in terms of policy, legal and institutional arrangements are examined. However, these implications are presented not as a hindrance but rather, as a long term strategy to achieve full implementation of the approach to planning being emphasized in this paper.

Keywords: Physical Planning, Integrated Planning, Top-Down Planning, Physical Development Plan.

1. INTRODUCTION

The need for the study – urban order and economic development

International experience has shown that, ultimately, the success or failure of national development initiatives will largely be shaped in cities and towns (UN-Habitat 2009). National economic success depends upon urban success (Kiggundu, 2014). Currently more than half of the world’s population lives in areas which are functionally urban (Barney, 2005; UN-Habitat, 2010). The fact that these areas account for about 80% of any country’s Gross Domestic Product (GDP) demonstrates why efficient and sustainable planning of cities, municipalities and towns are vital to restoring and speeding up economic growth and enhancing access to economic opportunities and social services, particularly for the low-income groups (UN-Habitat, 2011). Historically, economic growth and the level of urbanization have been closely related. Efficient planning and management of urban areas provides a better base for economic development. The physical and social infrastructure provided in urban areas is essential for the development of manufacturing and service industries, and other forms of investments. The positive aspects of urbanization could be fully realized in government planning processes if there was a proactive understanding of the interaction between their physical and socio-economic aspects. This paper is based on the study of this subject in Uganda. Uganda’s capital city, municipalities and towns should be a major focus of the country’s growth and economic dynamic. More efficient and sustainable cities and towns are therefore crucial to the Government of Uganda’s strategies for achieving socio-economic transformation as enshrined in the Uganda National Vision 2040.

The problem: Poor planning systems; poorly serviced and resourced urban areas

Uganda has many examples of declining inner cities, municipalities and small towns, poorly serviced townships and spatially distorted urban areas. These have become complex and costly to manage and service. It is these basic problems that ought to be addressed if the country is to take up the challenge of urban transformation (Kayom, 2006). Local Government planning and financing in Uganda and elsewhere
in the less developed countries of sub-Saharan Africa has tended to focus on socio-economic analysis and planning, without regard to physical and urban planning. Where physical planning effort has been made, what passes for physical planning is a rudimentary form of land use zoning which is unrelated to any socio-economic framework, programmes or budgets, or any implementation mechanisms for meeting its goals. The desirable process of integrating physical planning with socio-economic planning has been lacking. The result is that certain proposals for economic development cannot proceed efficiently because there is an inadequate understanding of physical and social infrastructure.

The background to this can be found in the history of the development of planning in Uganda. Policies and laws do exist which require integrated planning to be carried out, but they are not coherent at national level and the resources to implement them have not been forthcoming. The Uganda Local Government Act, Cap 243 section 35(1) bestows planning powers upon the District Councils which are designated as the Planning Authority of the District. The Act also requires the District Planning Authorities to prepare comprehensive and integrated development plans incorporating plans for lower level Local Governments. Under the same Act, urban local governments are required to regulate and control population activities in respect of housing construction and settlement, manage parks and open spaces, among others. However, the devolution of physical and urban planning function to local governments caught them unprepared, lacking capacity and adequate funding to handle the challenge of urban development (Koojo, 2005).

The essential issues associated with the research topic

Lack of capacity, lack of integration of planning systems and inappropriate methods are proposed as a major cause of the problems which are being faced. In order to understand the interventions which the Government of Uganda believes are necessary for sustainable urban development, it is important to examine the realities pertaining to urban areas and their planning systems. They are over-complex, uncoordinated and failing to get anywhere near catching up with the scale and pace of development. This paper therefore focuses on how lack of integration of the planning of services, spatial arrangements, management and funding of towns has come about. It looks at the reasons for the separation of these functions as a basis of understanding how to move forward. In this paper we also discuss what we believe to be the defining question: how extensive and how useful are the physical planning approaches currently being used by developing countries/economies of Sub-Saharan Africa? In addition we examine the origins of the physical planning systems which are in use and their current situation. The paper concludes by advocating that it is time for a clear and simple definition to be made of the basics of physical planning, stating the reasons why it is needed and how it fits into socio-economic development and financial planning. Such a statement should be understandable to everyone from bottom to top, in order to get the buy in from all stakeholders which is necessary if it is to be successfully implemented.

2. LITERATURE REVIEW

Integrated planning: What does it mean?

Various approaches and meanings are attached to the term ‘integrated planning’ in the context of physical planning in different countries. In South Africa, for example, integrated development planning was introduced for post-apartheid reconstruction and was inspired by the need for a device by which shared understandings of social justice are enabled (Visser 2001, Harrison 2007). Also in South Africa, (Matholase 2014) defined an integrated plan as a plan for an area that sets out an overall framework for development. It aims to coordinate the work of local and other spheres of government with the ultimate goal of improving the quality of life for all the people living in an a given area. It is based on existing conditions, constraints, opportunities and resources available for development. It addresses socio-economic and spatial issues of a society (UN-Habitat, 2009). In the European context integrated planning often refers
to the integration of environmental assessment with socio-economic and physical planning (Egenberger and Partidario 2000). In the United Kingdom, a radical overhaul of the Physical Planning system in 2004 took the separate economic, social and economic plans into the context of an overarching and flexible Local Development Framework. This was a participatory, flexible, approach to integrate socio-economic, spatial, sectoral, environmental and fiscal strategies in order to support the optimal allocation of scarce resources between sectors and geographical areas and across the population. It was designed to provide sustainable growth and equity and the empowerment of the poor and the marginalized (Brownill and Carpenter, 2009). However in this paper the term, in the context of Uganda, takes a different slant in that it describes a basic planning system which addresses the needs of an undeveloped society and economy in sub-Saharan Africa.

**Physical planning – different approaches and meanings in a global perspective**

Urban physical planning is as old as human settlement itself, and archaeologist have uncovered evidence of urban physical planning in the Middle East, North Africa, Latin America, Asia and sub-Saharan Africa as early as 560 BC (UN-Habitat, 2009). However according to UN-Habitat (2009) while urban physical planning as a form of governmental practice can be found in most parts of the world, its role and form, and perceptions of what it should achieve, vary significantly and there are debates on this within regions and countries (Olujimi, 2009). Even the term used to describe the activity of planning varies (Carter, 1974). Spatial planning, land use-planning, physical planning, city planning, town (and regional) planning and development planning are English - language terms in use. The French term *urbanisme* and the Spanish *urbanization* (to make urban) refer more broadly to economic and social relations rather than just physical factors and are closer to the term development planning. In China the terms master plan, comprehensive city plan and detailed plan are in current use. This in itself can be seen as the background to confusion in poor and undeveloped countries as to what is needed in terms of planning for the modern economy. Moreover, the Millennium Development Goals, African Union Land Policy and other key policy documents in the development agenda largely ignore physical planning.

**Development of Physical Planning in Modern Uganda.**

The history of Physical Planning in Uganda has been described by Langlands, Nangenda, Kayom and others, but the literature, as the institution of Physical Planning itself, is relatively undeveloped.

**(a) Early physical planning phase - Town and Country Planning Approach (1903 - 1962)**

In Uganda, formal physical planning began in 1903 with the enactment of the Township Ordinance of 1903 (Langlands, 1969). The ordinance provided for a wide range of urban legislations to be applied to designated Townships under the ‘Townships Rules’. The ordinance empowered the Governor to declare any place in the protectorate to be a township, to make rules and to levy rates. Hence, physical planning was confined to urban centres and it was referred to as town planning (Brasseur, 1969). In principle, urban areas were designated areas for Whites as administrators and Asians as traders while urbanization as a way of life was considered unsuitable for the indigenous African population. During this period, professionals were brought out from the metropolitan country, in this case the United Kingdom, bringing with them the knowledge of a practical discipline to be applied as well as might be to local conditions (Langlands, 1969). The first planning scheme for the capital city of Uganda (Kampala) was prepared in 1912 (Maleche 1992).

By 1948, the global approach, to physical planning, including that in Uganda, began to change to include functional basis of urban expansion and activity patterns as opposed to only dealing with physical forms (UN-Habitat, 2008). This comprehensive approach extended planning to larger areas like regions, nations and even beyond (Langlands, 1969). The term physical planning was created to express this tendency (Maleche, 1993). Despite this many governments, including Uganda, have resorted to physical planning to solve practical and local problems without bothering about such “philosophical issues” as strategic social and economic developments or other directions. As physical planning and its machinery developed, many conflicts have developed because the reasons for planning, the purpose of physical planning and its basic relation to other forms of planning had not been understood right from the beginning. The series of urban
plans produced in the 1940’s and 50’s were restrictive in nature and content. Hence many were not implemented (Langlands, 1969).

(b) The early Post Independence Period (Master Planning approach).

The beginnings of the post-independence era however saw significant changes taking place in government’s attitude towards urban planning and towards the task of master planning for Kampala in particular. Thus, in 1964 the Kampala Mengo Urban Planning Mission was designated. One of the key recommendations of this team was the need for government to promote regional planning and the development of towns throughout Uganda. This culminated in the U.N. Kampala Mengo Regional Planning Mission (1964-1966). What is puzzling though is the lack of full implementation of these recommendations. In 1967 a third U.N. Mission dubbed, U.N. Physical Planning Mission was instituted with the main objective of extending the work of the 1964/66 U.N Mission, first to the Jinja region and subsequently to the Mbale /Tororo regions. Langlands (1969) noted that before the 1960’s, little attention had been given to any other towns of Uganda save for Kampala. Entebbe, Arua and Fortportal were the only district towns that were considered seriously for planning. Others included; Masaka, Mubende, Mbale, Tororo, Kabale and Gulu. Small towns at less than district capital status which were considered for planning intervention were, Mpigi, Mityana, Kitgum, Bombo and Mukono.

The year 1964, immediately after independence from colonial rule, also witnessed the revision of the Town and Country Planning Act, the Public Health Act and the Urban Authorities’ Act. The intentions of the 1964 Town and Country Planning Act act were to consolidate the provisions for the orderly development of land, towns and other areas, whether urban or rural (Kayom, 2006). As a way of implementing this act, a new Ministry of Housing and Labour was created which unfortunately, only lasted until 1966 when it was disbanded and its activities transferred yet again to the Ministry of Works and Communications to form part of the Ministry of Works, Communications and Housing (Nnagenda, 2008:52). The alliance of Physical Planning with Works tended to relegate it as an extension of public works construction activity rather than giving it any strategic role.

The Urban National Housing Corporation was also established as a parastatal under the same Ministry of Works, Communications and Housing. During this period, there was, in particular, a preoccupation with blueprint plans, normally known in physical planning as ‘master plans’. Planning was about preparing plans and little else. Information was often collected for its own sake and was used unselectively and uncritically. The acute problem of lack of human resources available for physical planning in this period is also a factor to reckon with. This is because by 1968, Uganda had only twenty-two persons trained or engaged in urban planning. Of these eleven were professional planners, two of whom were not practicing in the field. Four were from related professions but had some formal planning training. One was overseas obtaining a professional planning degree. Of the total seventeen practicing planning, eleven were expatriates; the remaining seven were African Ugandans, only one of whom had more than a short course in planning (Langlands, 1969).

In 1979 Uganda witnessed a serious political instability that led to the destruction of a number of its major towns which had hitherto flourished because of either cross border trade or colonial presence in the early days of colonial rule. In the context of emergence from this destructive period, in 1982, Government under the auspices of Reconstruction and Development Programme prepared structure and detailed plans for Masaka, Arua, Mbarara, Gulu and Lira (UN-Habitat, 2010; Kayom, 2006).

(c) Decentralized physical planning – Structure Planning Approach (1993 - to date)

Whereas all of the above-described planning was undertaken at the center, in 1993 the Government of the Republic of Uganda adopted a policy of decentralization. Owing to the increasing rate of urbanization and
its structural nature, physical planning became one of the decentralized services. This was aimed at giving more responsibilities to local government councils because of the grassroots influence that local people have on the government. Thus, in line with the objectives of decentralization policy, participation of local people in physical planning was considered an integral element. In this regard, an appeal was made to every local government to have a Town Planning Department or Office. The issue of human resource capacity to deliver on the promisses of decentralization became a critical problem that required urgent attention by government as urbanization was becoming more and more challenging in Uganda’s urban centres. The year 2010 saw the enactment of the much-needed Physical Planning Act (2010). This law repealed the outdated Town and Country Planning Act. Participatory planning and changes in the institutional planning framework, including the declaration that the whole of Uganda was now subject to planning law, and that plans had to be prepared at National, Regional, District and sub-District levels are major tenets of this law (Koojo, 2005; Omolo, 2011).

The problem of lack of capacity in Physical Planning exists widely in less developed countries of sub-Saharan Africa; the case of Ghana and Nigeria

The acute shortage of physical planners seen in Uganda is also evident in Ghana (Yeboah and Obeng-Odoom; 2010). In 2010, only 50 percent of the 170 Local Authorities in Ghana had planning offices. Of these, only one-third were staffed by professional planners. At the central government level, only four planners and two sub-professionals were found to be responsible for the whole of the Northern region. The four planners were responsible for 20 local planning authorities, about 2.5 million people and a land size of about 70,000km2, which is almost 30 percent of the size of Ghana. This was partly the cause for failure of planning in Ghana, particularly from the perspective of district assemblies (Yeboah and Obeng-Odoom; 2010). The issue of human resources for physical planning is not only a problem in Ghana but Nigeria as well (Olajuyigbe and Rotowa, 2011). These two are among the most developed countries in not only West Africa but Africa as a whole. Their problem of limited number of physical planners indeed portrays the picture of many African countries in terms of physical planning. The two scholars, Olajuyigbe and Rotowa (2011) observe that the Ministry of Physical Planning and Urban Development in Nigeria exhibited a clear evidence of weak human capacity in terms of quantity and quality. Thus, in 2011, the Ministry possessed only 31 percent of the expected number of physical planning professionals for a country approaching 180million people.

The lack of knowledge or teaching of integrated planning in Uganda: curricula on physical planning, socio-economic planning are not in harmony.

A further contributor to the problem of physical planning is that the knowledge-base and curriculum for training in integrated planning does not exist in Uganda. In Makerere University Kampala, the relevant academic programmes that address socio-economic and physical planning where located in different colleges. It was found that, whereas the physical planning curriculum attempted to include elementary aspects of socio-economic planning, the latter had almost no reference to the former. According to the economics lecturers interviewed, development planning courses that are based in the Colleges of Business and Management Sciences and that of Humanities and Social Sciences have no relationship with spatial planning which is under the College of Engineering, Design, Art, and Technology. Indeed the analysis of selected key textbooks currently used for teaching development planning in Colleges of Business and Management Sciences and that of Humanities and Social Sciences, depicts planning as only being for economic growth. According to Jhingan (1997:503) in his book entitled “the economics of development and planning”, physical planning is only about allocation of physical resources. Such a narrow definition of physical planning has countered the appreciation of the irreplaceable value of physical planning in other disciplines. For the case of physical planning, some of the textbooks currently being used portray physical planning as a highly technical activity that focuses on complex issues of design, standards and zoning which are not a preserve of an ordinary urban community person. No wonder, physical planning as a discipline is
Currently under the Department of Architecture (Bernstein, 1995; Maleche, 1992 & 1993; Carter, 1974; Howard, 1965; Cumberland, 1956; Burgess, 1925). This approach to planning curriculum and departmentalisation in the “Ivory Tower” has resulted in graduates who are also confined in their approach to planning.

**Integrated planning: the case of South Africa and United Kingdom**

An analysis of integrated development plans (IDPs) in South Africa reveal that they are tools used for ensuring the integration of local government activities with other tiers of development planning at provincial, national and international levels (Matholase, 2014). They serve as a basis for communication and interaction within government structures. They serve as mechanisms through which national constitutional obligations are matched with the autonomous prioritization of locally generated development agenda (Charlton (2006). The IDPs have enabled municipalities to assess the realities in their areas of jurisdiction, including economic, social and environmental trends, available resources, skills and capacities. The needs of communities are equally addressed within the IDPs in order of urgency, importance and constitutional and legislative imperatives (Mohamed, 2006). As noted by Matholase (2014) integrated planning has resulted in coordinated planning in the three medium capacity municipalities in the Free State Province (Phumelela, Mantsopa and Kopanong) in South Africa (Mohamed, 2006). Although according to him, inadequate capacity was a hindrance to smooth functioning of integrated planning execution. In these authorities, only one officer was responsible for coordinating issues if integrated planning. Whereas the majority of the technical officers were found to be aware of the importance of integrated planning, they lacked adequate knowledge on how to do the work. However, according to Charlton (2006), integrated planning has resulted in acceptability of planning proposals with the end result being an improvement in implementation of plans, although integrated planning is yet to adequately address the issues of informal settlement communities in S. Africa (Charlton, 2006: Mohamed (2006)). The findings of Matholase (2014) and Charlton (2006) regarding involvement of the poor in planning processes is in harmony to that of UN-Habitat (2009). Thus, according to the latter, community participation should be the cornerstone of integrated planning and it should entail the involvement of citizens, especially the disadvantaged groups, in influencing policies at the City, Municipal or Town Council level.

In the United Kingdom, the need for an integrated planning approach has resulted into restructuring towards a planning system based on ‘spatial’ as opposed to land use planning. Thus, spatial planning has achieved significant outcomes in most urban centres (UN-Habitat, 2009). Policies, laws, regulations and standards have been put in place to ensure sustainable urban development through integrated planning system. Annual Budgets of urban authorities are aligned to spatial plans. Investment priorities are debated by different sectors of society and consensus is reached through participatory processes. The minority sections of societies are equally part and parcel of integrated planning. As observed by Sehested (2009) integrated planning as an approach to urban planning has led to more balanced decision making. Thus, expert authority is normally taken above political authority; different values and interests have been integrated in the planning processes; the planners have opened up the planning processes for a large variety of actors to be involved and the planners make a balance between general political goals and projects. Thus, integrated planning has resulted into sustainable communities (Brownill and Carpenter, 2009).
3. OBJECTIVES AND RESEARCH QUESTIONS

As summarized in the introduction, lack of capacity, lack of integration of planning systems and inappropriate methods are proposed as a major cause of the planning problems which are being faced in Uganda. The objective of the study was therefore to describe the planning process in a selected town in Uganda and examine the extent to which the fore-mentioned challenges have affected planning and implore the opportunities available. The literature shows that lack of clarity on the subject of physical planning is a worldwide problem. Furthermore the subject in Uganda has had to travel far from the colonial ordinances of just over 100 years ago in which even towns in themselves were regarded as being unsuited to the indigenous population, to sporadic attempts to deal with the ongoing problems of urbanization. It can be seen that the origins of physical planning in the modern state were as ‘blueprints’, quasi-construction drawings, for development of towns, devoid of strategic spatial thinking or ability to address spatial issues and implementation of spatial plans or strategies at the wider level. Although in recent times, following the reconstruction of Uganda post 1986, the relevant policies and laws are now in place, the concept of physical planning is still hampered by its limitation to zoning and physical prescriptions for land uses, and the capacity to develop as a decentralized system is not there, with much of the function still being carried out at the center. Indeed at the research and teaching level, the relevant connections are also not being made.

In the context of a research evidence and literature being sparse, the research questions, using Paidha town in Uganda as a case study, were therefore as follows:

1. What is the nature of physical planning methods in practice?
2. What is the evidence of extent of physical planning capacity at local level?
3. To what extent does integration of physical planning with socio-economic planning exist?
4. What has been the impact of the lack of development of physical planning systems on urban development?

4. RESEARCH APPROACH AND METHODOLOGY

The method of investigation adopted in the research essentially relied on published and unpublished materials and sundry informal investigations in the form of observations (Creswell, 2007). Interviews with scholars on the subject and various stakeholders that are instrumental in integrated planning systems were also carried out (Denzin, & Lincoln, 2000). These included officials of both local and national planning institutions that are mandated to carry out physical planning in Uganda. Paidha urban local government was selected as the field research area, based on its unique characteristics and functions. The urban physical development plans, development plans and budgets for Paidha in particular were thoroughly evaluated. The Ugandan physical planning initiatives for various years, the evolution of physical planning in Uganda as outlined in section 2 above were assessed. Finally, a visit to Kenya, the experiences of staff from the Physical Planning Departments of the Ministry of Lands Housing and Urban Development (MLHUD), the National Planning Authority, Local Government Finance Commission and the outcome of recent hands-on training of Planners from seven Municipalities in Uganda on Integrated Planning methods were used as the basis for an assessment of the current situation such that the findings and recommendations are appropriate and timely.
Figure 2.1: Location of Paidha town within Uganda.

5. RESEARCH ANALYSIS AND FINDINGS

Historical perspectives on physical planning in Paidha town

Origins of planning in Paidha
According to the officials of Paidha Town Council, the first planning attempt in Paidha was in the 1960’s. Planning was done through land inspection to determine the suitability of a piece of land for a specific kind of development. The team comprised of a sub county chief and village representatives who were all ignorant on matters of planning. The evidence of this was the use of ropes in measurement of plot sizes and boundary demarcation. The lack of an overall plan or strategy led to lack of harmony in the patterns of developments in most parts of Paidha town.

Since the mid-80’s, Paidha had been a township with a great potential for rapid urban development. It was in line with the controlling of this development, that Paidha was elevated to status of a Town Board administered by a Town Clerk in August 1984. With this acquired status, it became necessary for the town boundary to be clearly demarcated through a well designed physical plan. Consequently in 1986 a physical plan mainly with detailed scheme covering central area only were prepared. The specific objectives of the 1987 structure plan were (a) To put various land use activities in an organized and planned manner (b) To extend effective field administration in areas covered by the plan (c) To work as a basis for expanding other facilities like schools, roads, among others (d) To act as a basis for revenue enhancement.

Paidha was elevated into a Self Accounting Town Council in 1993 (Paidha Town Council, 1994). This, according to Paidha Town Council, raised the great need for fresh boundary demarcation and preparation of a comprehensive structure plan to guide development for the next 10 to 15 years. The objectives of the 1994 Paidha Structure Plan included;

(a) To examine and present proposals for the boundary of Paidha which is consonant with the newly acquired status of a self accounting Town Council.
(b) To provide new and rational planning, architectural and engineering standards for continued development of the entire town.
(c) To provide adequate land to cater for a fast growing population and various urban uses within a plan period of 15 years.
(d) To provide for an improved quality and management of the physical and social urban environment.
(e) To provide broad land use plans that are flexible and covering most parts of the proposed town areas, especially those with envisaged immediate pressure for development, to ensure orderly development throughout the town.

As a result of this plan, a number of buildings and roads were constructed in different parts of the town. However much of this development remained uncoordinated due to implementation challenges that according to local officials included limited resources and poor attitude of the people towards planning.

The 2008 Paidha Structure Plan

This plan was prepared after the expiry of the 1993 structure plan. By 2007, Paidha had started experiencing rapid population growth and adhoc changes of land uses. As a result, there was often a severe strain on natural resources, including water, roads, transport, electricity services and the local environment. Lack of a structure plan had also resulted in the proliferation of uncontrolled settlements and informal trading activities. The overall objective of this plan was therefore to achieve a development framework that would provide for orderly, coordinated, harmonious and progressive development of the structure to promote health, safety, order, amenity, convenience and general welfare of all the inhabitants as well as efficiency and economy in the growth process of Paidha Town Council into a model town. The specific objectives of the structure plan were; (a) to provide a basis for guiding investment and encouraging quality development (b) to improve infrastructure for the growing population (c) to provide a basis for urgent action to stop inappropriate and illegal development (Claire, 1973).

Summary of development of physical planning in Paidha and its consequences

Though this section analysed a number of planning issues, more focus was made on establishing whether there was any significant changes in terms of physical planning. From the foregoing, it is noted that Paidha’s growth has been characterized by uncoordinated development patterns as its boundaries were extended. The poor road network and unhygienic environment including poor building patterns in Paidha largely derive from its history of growth that was characterized by ad-hoc planning. This historical influence is still evident in the development patterns of Paidha and poses serious challenges for managing land planning for provision of public utilities and services. Though planning schemes exist, there is lack of conformity to them. As observed by Koojo (2005), there is “planning without planning”.

Lack of inter-governmental planning coordination:

In Paidha, both government and non-state actors do not coordinate their activities. The study found out that Paidha Town Council carried out its planning work separately from the District Council of Nebbi (former mother district) and Zombo District council (current mother district). Long-serving senior staff of the two District Councils of Nebbi and Zombo admitted not discussing matters of physical planning of Paidha.
Town Council at all in their development planning meetings. Indeed, a study of the two District Development Plans also revealed lack of inclusion of physical planning. Members of staff of Paidha Town Council also revealed that there was minimal level of interaction between them and the Physical Planning Office. This trend is not surprising since the officials in Zombo and Nebbi districts admitted an absence of Physical Planners among their staff. The researcher also noted absence of District Physical Development Plans or Land Use Plans upon which urban Land Use Plans should be based. Besides, lack of a National Spatial Plan has also made it difficult for the Districts to formulate their own plans.

The only form of coordination that was found between Paidha Town Council and the Ministry of Lands, Housing and Urban Development (MLHUD), the Ministry responsible for Physical Planning, was a requirement by the latter to submit a finished plan for consideration by the former. Furthermore, no coordination mechanism was found available between Paidha Town Council and any Non-Governmental or Private Sector Organizations operating in the area.

**Lack of integrated planning and appropriate physical planning methods.**

The results of analyses of Physical Development Plans, five-year Development Plan, Annual Budgets and Work Plans of Paidha Town Council revealed that there was no relationship between them. The study found out that physical planning had remained distant from socio-economic planning in Paidha Town Council. According to the Physical Planner of Paidha, she lacked adequate knowledge to champion preparation of an integrated plan. Interviews with other officials of Paidha Town Council also revealed lack of clear understanding and appreciation of relationship between physical development planning and socio-economic planning. Thus, One official had this to say;”We have a colleague who is a Physical Planner but we are yet to understand what exactly she does. We only know she is housed in the Engineering Department”  (Key informant interview).

According to officials of Paidha Town Council, physical planning is only about drawing plans in the office. This simplistic understanding of physical planning means, it cannot qualify for serious financial support. From the foregoing, physical planning is still trapped in a conception of forming an imprint of development which conforms to ideal standards, rather than a method which can be flexible, strategic as well as specific, responding to physical, social and economic realities. Most urban areas have already expanded well beyond the area which they need to occupy if designed as compact, well-serviced settlements. Therefore planning has to work with existing patterns, whereas the concept of the subject is one that seeks to design ideal solutions to be superimposed on the ground, rather than work with layouts as they are developing ‘unplanned’, informally. The reality may be that development in this form can never be ‘afforded’, and this contributes to the disregard of idealised, prescriptive layouts by other planners.

**Top-down planning approach:**

The three planning attempts (1987, 1994 and 2008) in Paidha were all initiated and done by the central government. The study found that since there was only one planner who moved from Kampala (capital city) to Paidha to prepare the plans (1987 and 1994), he always didn’t have enough time to involve stakeholders like local communities in the planning process. The 2008 plan was also prepared by foreign experts who, according to staff and local communities of Paidha, didn’t adequately involve stakeholders. The result of an interview conducted by the researcher with the urban community of Paidha revealed limited level of involvement by the latter in physical planning process as depicted in table 4.1(Appendix A).

**Government funding priorities do not favour integrated planning efforts:**

In Paidha, physical planning is not prioritised in terms of funding as depicted in table 4.2.

**Table 4.2: The Proportion of Physical Planning Budget as a Percentage of Total Council Budget in Uganda Shillings)-Paidha Town Council.**
Table 4.2 shows that in a period of 10 years (FY, 2002/3 – 2010/11), on average, physical planning had been allocated a budget of approximately 1 percent of the total Council Budget save for FYs, 2003/4 and 2004/05. An analysis of table 4.2 also reveals that on average, and on a monthly basis, the Council has been spending 500,000 for physical Planning. It should be noted that all the planning attempts carried out in Paidha were largely financed directly by the Central Government using donor funds. The figure mentioned, according to the Physical Planner of Paidha is only enough for transporting her from the work station (Paidha) to the Headquarters – Kampala for a brief consultation since there was no Senior Physical Planning Official both at the Town Council and District Council.

An analysis of budgets for 10 financial years for Paidha Town Council revealed that construction (roads, buildings and other physical structures), finance and administration including political mobilisation were the main beneficiaries of funds in its organization. The study found that these sectors mentioned, were receiving funds in form of conditional and equalization grants from the central government. One of the conditions of these funds is 10 percent co-funding. This implies even the local revenue of Paidha Town Council has to prioritise projects that are receiving conditional grants from central government. It was reported that physical planning was not a beneficiary of conditional grants from central government and that partly explains its small budgetary allocation. According to Kiggundu (2014), other towns in Uganda too suffer from acute shortage of funds for physical planning. Thus on average, Mbarara district in Western Uganda operated a budget of Uganda Shillings 35 million during the 2013/4 financial year. Kiggundu (2014) also established that Mbale Municipal Council had no specific budget for physical planning. Kabale had Shillings 8million and Arua Shillings 9 million. This illustrated in table 4.3., Appendix A.

The main observation is that, despite the extent of expenditure on the physical environment, the support for physical planning, let alone its relationship to development planning, finance and budgeting is at a very low level. This means that the harmonious arrangement in space, the synergies between different elements in development and the potential for increased revenue from increased values, are not achieved.

**Inadequate human resource capacity for physical planning:**
In Uganda, staff structures in most local planning authorities are not fully filled. On average urban councils only have about 60% of the required personnel. In addition, staff structures for urban councils only provide for one physical planner who operates under the engineering and works department. There is a growing realisation and recognition however that towns and cities require a separate fully fledged department to handle physical planning issues. Under the Kampala Capital City Authority (KCCA) a fully-fledged physical planning department was established. Several physical planners were also recruited to promote physical planning and orderly urban development in Kampala. According to (Kiggundu, 2014), the reason why KCCA is able to recruit more than one physical planner is that its annual budgetary allocations are far beyond what most urban councils receive each financial year from the central government (Goodfellow, 2010). Besides, most of the grants received by urban councils from the central government are conditional grants meant to finance specific projects within these towns and not to be used to recruit new staff and pay their salaries. In Paidha urban local government, there was only 1 physical planner who is a fresh graduate of urban planning from Makerere University.

Uganda National Development Planning Guidelines are silent on physical planning. A clear manifestation of one of the causes of failure of integrated planning in Paidha is the weakness of the National Planning Guidelines which instruct Development Planners to prepare Development Plans, on which local government programmes and finances are based, as opposed to Physical Plans. Whereas the staff interviewed demonstrated some level of knowledge on key steps involved in socio-economic planning, they were ignorant on the critical physical planning steps. In addition, the Physical Plans described the proposed physical disposition of elements of a town, but there is no plan of projects which are required to implement the plan and no budget. The Economic Development Plan projects and budgets are supposed to be used to order the allocation of finances, but in practice this link is very weak or non-existent.

Impact of lack of integrated budgeting on urban development
The main impact of lack of integrated planning on urban development in Paidha has been:
(a) Piecemeal and poorly coordinated urban development that does not adequately serve the needs of those living and working in urban areas.
(b) Difficulty in providing appropriate urban infrastructure in residential, commercial, and industrial parts of Paidha town in Uganda.

Public and private institutions involved in the provision of urban development services including residential and commercial development and infrastructure are operating in an environment that is lacking clear operational directives. In the absence of such directives, it will be difficult to achieve consensus among the stakeholders involved in urban development. The whims and discretions of high-ranking officials fill in for the gaps in policy, thereby opening unrestricted opportunities for misallocation of human, material and financial resources and for the mismanagement of development projects. This could be particularly the case in residential areas and improvement programs, given the weak regulations governing physical planning.

6. RESEARCH CONTRIBUTION

The research has begun to put the integration of ‘physical’ with ‘development’ planning forward as a major issue in the field of physical planning. It has set out the context of the paucity of planning resources in Uganda. It has shown that the concept of physical planning is limited to preparation of layouts for development, which when isolated from social and economic analysis, programmes and budgets of local administration, cause inharmonious physical development, and lack of synergies which could lead to unresourced urban growth.

One particular policy program which extended theoretical underpinnings was the decentralization program of which Uganda’s experience is generally considered a success story in terms of its extent and impact (Nsibambi, 1998; Olum; 2004; Nabaho, 2012). However, evidence from several studies, including
Awortwi (2011), Green (2008) Beall (2005) and this paper, seems to point to the fact that emerging urban authorities have still not recovered from the negative impact of decentralization. This study has used empirical findings to show that the current decentralization policy is not making the anticipated impact.

The theoretical arguments for this justification suggest the need for policy review which will enable physical planning to work effectively for the local authorities and more especially the emerging urban authorities like Paidha (MOLG, 2010). The study indicates that integrated planning plays a fundamental role in planning processes making it vital for the subject of physical planning. Socio-economic planning should be recognized as an important element of physical planning to complement scientific decision making processes in urban development and vice-versa. The research has also shown that the principles of integrated planning needs to be extended to all levels of the planning process, and that not just the local government level but also the local community and private stakeholders. It is also evident that lack of policy for integration at national level and in research and teaching institutions needs to be addressed.

7. CONCLUDING REMARKS

Whereas, much is often reported about planned urbanization in theoretical and policy debates, weak physical planning in practice has been responsible for the prevailing and persistent unorderly physical developments in Uganda, amongst emerging urban centres like Paidha. Integrated planning, although evident in South Africa, and Europe in certain forms is conspicuously missing in Uganda’s planning system and Paidha in particular. As discussed in the section of literature review, specific methods are needed which are applicable to the historical background and stage of development of a less developed country like Uganda, and the urban communities of towns like Paidha need to be involved in planning processes. The annual budgets for Paidha Town Council should reflect the proposals documented in the spatial plan of the town. The interests of different stakeholders in Paidha urban centre should be harmonised with sustainable development principles as is the case in other countries like South Africa and the United Kingdom. From the foregoing, integrated planning in Uganda and other developing countries has been shown to neither exist, nor are systems in use which are able to address the critical planning issues that are affecting the emerging urban centres. A key conclusion that can be drawn from the foregoing discussion in this paper is that for efficient and sustainable development, physical planning needs to be fully integrated and/or linked with economic and social development planning and financing at all levels including local governments. Such an approach would strengthen coordination between urban and economic development. And for this to be done successfully there is need for re-examination of policies (e.g. planning policy), institutional arrangements and legislation based on an understanding of the current situation on the ground.

The planning system has failed to yet achieve its intended goal of promoting orderly urban development as well as improving service delivery in various towns in Uganda. Over 60% of the urban residents in Uganda live in slum settlements with precarious public services (Kiggundu, 2014). Although this is partly due to other, non-planning, factors such as inadequate funding, poor urban governance, failure to enforce the existing urban laws, complex land tenure systems as well as urban culture and value systems, it can be argued that none of these can be remedied without a basic, functioning, integrated planning system. A big problem exists in that development policy at national and even global levels does not recognise this need. It is hoped that this research will contribute to remedying this situation.

8. RESEARCH LIMITATIONS

First, the proposed analysis of integrated planning is based on case study of Paidha Town in Uganda. As in all case study research, the study is biased towards the case studied, and it may not be representative of all emerging urban centres. Emerging urban centres in Uganda are not completely homogenous. Although the study area represents the country’s promising urban centre and is a representative of emerging urban centres, possible capacity constraints, rate of urbanization, and processes relating to physical planning differ
across the country. Therefore, further investigations in other emerging urban centres in Uganda would offer new data and provide an opportunity to strengthen the findings of this study.

Secondly, the research has taken place in the field of physical planning, which, as explained, is not only not well developed in Uganda (the first batch of qualified Planners since the period of conflict in Uganda, emerged only in year 2000), but is also not at all linked to the other fields of social and economic development planning, and local government finance, and the academic level.

9. FURTHER RESEARCH

Further investigation to cover other emerging urban areas would strengthen the conclusion drawn from this study. Furthermore, the analysis of physical planning process adopted in this study was limited to a few aspects of planning process but not the whole of it (participation and/or, involvement of urban community, human and financial resources). It was also not able to examine the functioning of the other essential components of integration – development planning and finance. Further investigations in these other components of an integrated planning process would provide an opportunity to strengthen the processes.

A key aspect that was not covered in this research is the analysis of legal and institutional implications of integrated planning. The required levels of institutional coordination required in developing planning processes, the inclusion of land-use planning and enforcement, surveying and physical infrastructure into integrated planning processes requires the integration of physical planning and other statutory laws, and policies of other agencies at national level. Physical planning, mapping and physical infrastructure services are based on statutory laws. Operating in a pluralistic legal environment has always been a challenge in physical planning (Kayom, 2006; Omolo, 2011). The divisions between agencies at the centre are also always problematic. The question remains as to the extent to which integrated planning processes can or should be codified in law or included in policy. This is a complex issue, because the codification of physical planning law has the tendency to restrict its flexibility, whereas those laws that are not codified become susceptible to manipulation (Lwasa, 2005). Therefore, it would be advisable to undertake further research to generate an integrated planning model that is ideal for the emerging urban centres.

10. ACKNOWLEDGEMENTS

Our sincere thanks to all physical planning colleagues for their unending support and whose useful assistance here and there, proved to be a catalyst for this paper. A few persons among the urban community leaders of Paidha who deserve special recognition include; Mr. Obima Isa, Mr Ungukadho Yotam Nasuru, Reverand Christopher Unyuthi and Mr. James Jalawure. These people took keen interest in our interviews and offered us not only information about Paidha but also traversed with us many of the villages we had to visit to collect data. We greatly appreciate the invaluable time Mr. Katsigaire Savino, Director – Physical Planning and Urban Development, spent with us answering numerous questions. We also recognise contributions from Prof. Hannington Sengendo and Dr. Stephen Mukibi for their great support in supervising Kayom Wilson as a PhD Student. Their insightful suggestions, motivation and the guidance have proved invaluable in the pursuit of this paper. We also appreciate the technical guidance especially on institutional issues from Dr. Isaac Mutenyo, Program Coordinator for Uganda Support to Municipal Infrastructure Development. And finally, Mr. Gabbindade – Musoke, Permanent Secretary of the Ministry of Lands, Housing and Urban Development is appreciated for his visionary leadership that enabled us to secure funding for this activity. We are also grateful to Dr. Violet Kayom, of Medical School, Makerere University for her intriguing questions regarding techniques of writing manuscripts.
11. REFERENCES


Burgess, E.W. (1925). The growth of the city, introduction to a research project, Chicago, University of Chicago.

Burgess, S. (1925), Descriptive concepts to explain spatial organization, Pittsburgh press.


Koomen E (2008), Spatial Analysis in support of physical planning. Amsterdam, March 2008.

Maleche, Z. (1992), History of town planning: A manual prepared for the Master of physical planning degree course. GTZ/ Makerere University.


Olum Y.A.A (2004); ‘Decentralization: the concept’, being a paper presented at basic principles of decentralization course conducted by Uganda Management Institute in conjunction with Innovations at Makerere committee under publication as a section in a pamphlet for papers presented in a one week course compiled by Uganda Management Institute.


Paidha Town Council (1993). Paidha Structure Plan and Boundary Proposal


Paidha Town Council (2009). Paidha Town Council Investment Profile


Uganda Bureau of Statistics (2002), Housing and Population Census; Provisional Results.


APPENDIX A

Table 4.1: Involvement of urban community in preparation of physical development plan.

<table>
<thead>
<tr>
<th>Are you involved in physical planning processes?</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>17</td>
<td>18.7</td>
</tr>
<tr>
<td>No</td>
<td>38</td>
<td>41.8</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td>60.4</td>
</tr>
<tr>
<td>Not sure</td>
<td>36</td>
<td>39.6</td>
</tr>
<tr>
<td>Total</td>
<td>91</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Field Data 2012

Table 4.3: Urban Grants from the Central Government 2000 – 2009

<table>
<thead>
<tr>
<th>FY</th>
<th>Total Grants to all Urban Local Governments in Uganda in Shs Billion</th>
<th>Unconditional Grants from the Central Government to Urban Local Governments, Shs Billion</th>
<th>% Share of conditional Grants to Total Grants for all Local Governments</th>
<th>Urban Grants as % of all Local Government Grants in Uganda</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000/01</td>
<td>5.2</td>
<td>4.2</td>
<td>78</td>
<td>1</td>
</tr>
<tr>
<td>2001/02</td>
<td>5.9</td>
<td>4.7</td>
<td>78</td>
<td>0.9</td>
</tr>
<tr>
<td>2002/03</td>
<td>11.2</td>
<td>4.9</td>
<td>43</td>
<td>1.7</td>
</tr>
<tr>
<td>2003/04</td>
<td>10.4</td>
<td>5.4</td>
<td>52</td>
<td>1.4</td>
</tr>
<tr>
<td>Year</td>
<td>Income 1</td>
<td>Income 2</td>
<td>Income 3</td>
<td>Income 4</td>
</tr>
<tr>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td>2004/05</td>
<td>11.9</td>
<td>5.9</td>
<td>49</td>
<td>1.5</td>
</tr>
<tr>
<td>2005/06</td>
<td>24.4</td>
<td>18.4</td>
<td>75</td>
<td>2.8</td>
</tr>
<tr>
<td>2006/07</td>
<td>22.9</td>
<td>17.1</td>
<td>75</td>
<td>2.4</td>
</tr>
<tr>
<td>2007/08</td>
<td>33.6</td>
<td>25.2</td>
<td>75</td>
<td>3.2</td>
</tr>
<tr>
<td>2008/09</td>
<td>40</td>
<td>26.2</td>
<td>65</td>
<td>3.4</td>
</tr>
</tbody>
</table>

Building Resilience, Building Society: Assessing Climate-Readiness in Cape Town

Marina Jozipovic¹, Larry Swatuk², Carrie Mitchell³

¹Masters of Arts Candidate, ²Associate Professor
School of Environment, Enterprise and Development
²Email: lswatuk@uwaterloo.ca
³Assistant Professor
School of Planning, University of Waterloo
200 University Avenue, Waterloo, N2L 3G1, Canada

Abstract

Cities of the global South are characterized by vast socio-economic inequalities which, in turn, impact the natural and built environments unequally. If urban resilience in the face of changing and increasingly variable climates is to be achieved, somehow these poorly integrated, mostly disarticulated spaces, people and places must be brought together in common cause for mutual benefit. How might this be done?

Climate change resilience requires long-term planning at multiple levels, with significant coordination between national and local actors. Extreme weather events, such as drought and flooding, and intensifying water stress compounded by a combination of demographic, socio-economic and political factors, risk unravelling current efforts to promote development, formalization, and economic growth. A number of factors put informal areas at the highest level of risk. Poor state-civil society relations often lie at the heart of poor service delivery. Recent years have shown that underinvestment and neglect undermine stability and promote unrest and violence. The threat of climate change and the sharp disparity between different sectors of the same city may aggravate future conflict. It is vital that vulnerable cities are preparing and planning for climate change while implementing basic service provision such as water and sanitation.

This paper reflects on risks and responses to climate adaptation in cities of the global South. It presents a preliminary assessment of ‘climate-readiness’ planning in Cape Town in search of lessons and best practices. Through interviews with municipal staff, researchers and community organizations, the authors aim to examine how current planning practice impacts climate change preparedness and community resilience in the study areas, and to locate these findings within the broader context of adaptation literature.

Keywords: Informal settlements, climate change adaptation, urban planning, service-delivery

1. INTRODUCTION

The recently published 5th Assessment Report of the Intergovernmental Panel on Climate Change highlights the central importance of accompanying mitigation with adaptation. Cities represent the highest concentration of both people and economic activity. Weather and climate-related disasters carry the highest potential for loss and disruption in cities. However, cities are also the locus of institutional structures and resources that allow for long-term planning and adequate responses during emergencies (IPCC, 2014d).

In countries such as South Africa, the vulnerabilities of urban areas are heightened by large numbers of informal settlements and numerous organizations have called for action to protect the highly vulnerable residents of informal dwellings (ActionAid, 2006; IPCC, 2014c; UN-HABITAT, 2009). Adaptation in
informal settlements takes place in the context of long-term development goals that aim to provide basic services, employment opportunities, and formal housing.

This paper explores adaptation in highly unequal urban landscapes. Adaptation in this context cannot solely respond to measurable threats such as sea-level rise or increased rainfall intensity; adaptation must be a part of sustainable development and a part of efforts to resolve the social and economic fragmentation of cities. This paper reviews the literature on adaptation challenges and strategies for informal areas and presents some of the preliminary findings of a current study into adaptation options for the City of Cape Town.

2. URBAN POVERTY, ADAPTATION, AND RESILIENCE

Urban climate change adaptation strives to promote resilience at the household, community, and city levels. The term “resilience” is rooted in the concept of ecological resilience and traditionally defined as the capacity for a system to withstand shocks and disruption (Folke, Carpenter, Walker, Scheffer, & Chapin, 2010; Holling, 1973). However, in the context of informal settlements, we require a deeper understanding and expression of resilience. Informal settlement residents may already resilient in many ways and we must not undermine local capacity to cope with stress. Year after year, households bounce back from fires and floods, in addition to myriad issues that stem from poverty and lack of infrastructure. However, the sustainability of a community requires more than bouncing back to a status quo that is already marginalized and vulnerable to physical, economic, and social stress. Resilience to the effects of climate change, which may make a precarious situation even worse, requires new solutions to current problems that help pave the way for stability and quality of life under a changing climate.

For poor and middle-income countries, it is critical that adaptation is integrated with development rather than treated as a competing priority. Incorporating climate change into development efforts means planning for both existing and new hazards. As Mazmanian et al. write, “relying on the stationarity of past patterns as a simplifying assumption in evaluating development proposals is extremely hazardous and ill-advised” (Mazmanian, Jurewitz, & Nelson, 2013, p. 2). Relying solely on historic data, at the expense of ignoring changing conditions, risks undermining development goals.

For example, South African cities have, for many years, undertaken massive low-cost housing construction to cope with the large informal settlements that grew out of apartheid-era planning and contemporary economic issues. In the 2012/2013 Yearbook, the South African government reported that 1.44 million registered homes (24% nationally) were state-subsidized. Government-subsidized housing construction is one of the primary development strategies used by all levels of government. However, the geography and weather patterns vary across the country with many known hazards; for example, in Cape Town, many poor settlements are in low-lying flood prone areas, whereas in Durban, settlements tend to be located on slopes with their own accompanying issues during rainfall and storms. Already there have been concerns voiced over the rapid nature of the construction process resulting in poor quality housing (Govender, Barnes, & Pieper, 2011). Furthermore, Govender et al. report, in their assessment of a settlement in Cape Town, that because households in subsidized housing are, by definition, low-income, they often lack the funds to make repairs or improve their homes on their own. (2011). The housing backlog has resulted in an urgency to build many homes quickly, sacrificing quality for quantity. However, poor quality housing, which is problematic today, may create many more issues for households and different levels of government should climatic conditions change. This example highlights the need to incorporate environmental factors into development strategies; to ensure investments of money, time, staff, and community cooperation do not go wasted. Many billions of rand are allocated towards housing and human settlements each year; for a middle-income country like South Africa with widespread inequality, ensuring this investment is a long-term one is crucial.
The projected climate change impacts for South Africa range depending on the region. Potential effects include: drier weather, heat waves, drought, on the one hand, and increased rainfall intensity, unpredictable precipitation patterns, and storm surges on the other (IPCC, 2014b; Western Cape Government, 2014). These effects are expected to have a marked impact on housing, employment, water availability, and the price of commodities (Taylor & Peter, 2014). Because of the range of potential impacts and the uncertainty in how changes in climatic patterns will impact different sectors, planners and policy makers are understandably confused and even frustrated on how to best move forward. However, as this paper will discuss in more depth, incorporating this uncertainty into the planning and development process will be a crucial step forward.

In South Africa, existing state-civil society are under extreme strain due to issues over housing, service delivery, and unemployment. In many ways South Africa has been progressive in accepting the reality of climate change and seriously incorporating climate risks and adaptation strategies into plans and policies. However, this is limited by political tension and lack of resources. Housing and service delivery are immediate and pressing concerns. However, long term issues such as economic opportunities for poor households and environmental management are much more difficult to address. Climate change adaptation requires engagement and collaboration and a strong role for state funding and resources.

As this paper will discuss, risk accumulation in informal settlements results from a number of different sources (Roth & Becker, 2011): unsuitable land, poor quality housing, lack of infrastructure and services, lack of economic opportunities, disruption of community ties, and poor state-civil relations. Climate change is a compounding risk for already poor and vulnerable groups (da Silva, Kernaghan, & Luque, 2012; IPCC, 2014c). Any adaptation strategy will inevitably come up against multiple issues and this fact is recognized throughout this paper. We aim to identify opportunities for experimentation and engagement that may contribute to physical adaptation and security while increasing engagement and trust between informal settlement residents and government institutions.

3. CAPE TOWN, SOUTH AFRICA

20 years after apartheid, national elections continue to be won on hope and promises, particularly in relation to the delivery of housing, water, and sanitation in poor townships and informal settlements. The Government of South Africa has a history of setting ambitious and well-intentioned goals. For example, in 2001, a policy of “Free Basic Services” was announced to meet basic needs for housing, water, and sanitation in poor households, and in 2004, it was announced that informal settlements would be eradicated by 2014 through massive housing projects. However, achieving these policies continues to be a distant hope and in 2013 it was reported that the number of informal settlements has hardly changed since the end of apartheid (“Settlement numbers unchanged: Manuel,” 2013).

Service delivery for informal areas is highly politicized. Protests, riots, and destruction of facilities occur regularly. The locus of criticism is often the municipality for failing to respond to the needs of those living in informal settlements. Often, measures taken are stop-gap emergency strategies that respond to immediate needs but fail to plan for long term requirements for sustainability. For example, many communities continue to cope with temporary and/or shared toilets where permanent sanitation infrastructure is promised or simply not possible due to the poor quality of settled land. In another example, “temporary” transit areas are used to house residents who have been vacated due to flooding or fire; however, the housing backlog means this wait may be years or decades.

In the course of the writing of this paper, a study was undertaken in the City of Cape Town to understand the climate risks and adaptation options for informal settlements in the Cape Flats. Annual flooding is currently a major concern for staff departments that deal directly with informal settlements, primarily through the Disaster Risk Management Centre, the Human Settlements Directorate, and Roads and
Stormwater. The purpose of the study was to identify lessons and challenges on current and future risks facing informal settlement dwellers. Key-informant interview were conducted with primarily City of Cape Town staff to better understand what adaptation would mean in a spatially divided setting like Cape Town. Cape Town was chosen for its high level of capacity, both in terms of financial resources and skilled staff, and due to both national and international recognition of good governance and city initiatives. Finally, as Cape Town faces annual flooding, it provided a relevant case study to examine the climate-related risks facing informal settlements.

In the Western Cape, projected effects of climate change include higher temperatures, general warming, and reduced average rainfall (Western Cape Government, 2014). However, while overall rainfall is projected to decrease, extreme weather events such as intense rainfall, flooding, and storm surges are projected to be more frequent and more intense (Western Cape Government, 2014). Climate change resilience requires long-term planning at multiple levels, with significant coordination between national and local actors. Extreme weather events, such as drought, flooding, and intensifying water stress, aggravated by demographic and socio-economic and political factors, risk unravelling current efforts to promote development, formalization, and economic growth.

Flood Adaptation in Cape Town

In Cape Town, high levels of development in some areas indicate a competent and sophisticated city government and administration with the knowledge and resources for executing beautiful urban plans. Cape Town, however, may be said to be really two cities. The well-planned areas of the middle and upper classes, and the townships and informal settlements of poor, historically marginalized, and predominantly Black and Coloured households. The landscape and geography sharply highlights this dualism: townships and informal settlements such as Khayelitsha, Mitchells Plain, Philippi, and others are differentiated by income, type of dwelling, and by physical separation through large roads and highways that cut through and between them, acting effectively as dividers between formal and informal areas.

Of the global urban population, fully 32% of city residents are presently living in informal settlements (UN-HABITAT, 2009). According to statistics compiled by the Western Cape Government, there are 143 823 households currently living in shacks in informal areas, a further 74 957 households live in shacks in backyards (backyard dwellers), totalling 20% of all households (The Housing Development Agency, 2013). The City of Cape Town, in 2012, estimated 378 informal settlements in total; however, because of the nature of informal settlements, it is extremely difficult to settle on accurate numbers (The Housing Development Agency, 2013). Two major reasons are cited for the persistence of informal settlements. First, in-migration from the Eastern Cape and rural parts of the Western Cape; available census data estimates that 30% of those living informal settlements moved within the census period of 2001-2011. Second, the rise of market housing prices may also be driving residents from formal areas, as noted through key informant interviews conducted (Interview - City of Cape Town Staff, Interview - NGO).

Informal settlements are a persistent reality in South Africa. While cities like Cape Town are challenged with managing and responding to informality, this is also a major opportunity for Cape Town to emerge as a leader in sustainable development, offering lessons and best practices for other cities. Implementing adaptation strategies are “dynamic iterative learning processes” and require experimentation and sharing; it is highly unlikely that single policies or blanket solutions will resolve the challenges associated with both climate change and development (IPCC, 2014a, p. 3). Furthermore, there is a noted lack of literature on good adaptation strategies and this work hopes to contribute to this gap (Brown, Dayal, & Rumbaitis Del Rio, 2012; Chikozho, 2010; da Silva et al., 2012; Harwitasari & van Ast, 2011; Leeuwen, 2013; Poyar & Beller-Simms, 2010; Wamsler, Brink, & Rivera, 2013).

To explore and examine climate change risk and adaptation options for the City of Cape Town, key informant interviews were conducted with City of Cape Town staff from a range of departments including Disaster Risk Management, Human Settlements, Water and Sanitation, Roads and Storm Water, and Spatial
Planning and Urban Design, among others. NGO staff and academic experts were interviewed to provide additional perspectives on challenges facing residents and alternative approaches to municipal-led action. Cape Town was chosen as a case study because of the high number of residents living in informal settlements in low-lying, flood-prone areas, the efforts of the city and the Western Cape Government to begin to integrate climate change adaptation into a number of plans and policies, and the perceived capacity of the municipality to address these issues. The City of Cape Town stands as a leader in number of areas, particularly in disaster risk management, and has made extensive efforts to position itself as a leader in sustainability and progressive urban design through international awards such Urban Design Capital and Earth Hour Capital, both in 2014.

Existing flood risks and current coping strategies
Many informal settlements located in the Cape Flats cope with annual flooding during winter’s rainy season. Due to low gradient, settlements rest on high ground water areas (Interview – City of Cape Town Staff). When building shacks, residents are reported to dig into the ground, further increasing the chance for groundwater seepage (Interviews – City of Cape Town). Continued settlement along wetlands and within flood plain corridors present a serious challenge for City of Cape Town staff. Lack of space, poverty, and a shortage of affordable housing options has resulted in occupation of (what City staff consider to be) uninhabitable land. Risks of flooding are increased with the very high densities that are seen in informal settlements; water has little room to flow through and pools in homes and surrounding areas. Furthermore, inadequate waste disposal and poor understanding of storm water drainage has resulted in open drains being used to dispose of household waste and other garbage (Interviews – City of Cape Town Staff, Interviews - University of Stellenbosch Researchers). This blocks the necessary flows of water during rainfall and flooding. While City of Cape Town staff understand their obligation to provide rudimentary services such as water, sanitation, and waste disposal to informal settlement residents, the interviews showed that many felt they were at an impasse; while trying to provide basic services, many felt that efforts were futile because problems would inevitably continue due to settlement location.

Climate change adaptation mainstreaming in planning for informal settlements
The city of Cape Town has explored a number of strategies to cope with these issues in face of climate change; these strategies also highlight the barriers of stop-gap measures to address the root of the problem. The Roads and Storm Water department in collaboration with the Environmental Resource Management department have designated flood plains based on climate change estimates, not historic averages (Interviews – City of Cape Town). However, new residents tend to settle where there is space, not where the City’s master plan indicates they should (if they could afford to formally buy land). Solid Waste Management has taken pains to clear storm water drains prior to each winter season (Interview – City Staff). However, lack of regular waste management services and continued improper waste disposal by residents has foiled some of these efforts (Interview - City of Cape Town, Interview – University of Stellenbosch Researcher). The Disaster Risk Management Centre, in combination with the Human Settlements Directorate, has identified the most at-risk areas and marked them for relocation. Unfortunately, the massive housing backlog and shortage of available land means that it is highly unlikely that residents will be relocated quickly.

A key theme that has emerged through interviews is the primary challenge of finding space for settlement and managing the continued influx of people. The city struggles, in part, due to a lack of legal mandate to respond to informal settlement needs as they would to formal areas of the city, outside of low-cost housing subsidies and emergency service provision. Many of those interviewed have voiced concern that providing

---

isplayed in the notes.
additional services may encourage further land invasions. Also highlighted in the interviews was the issue of education and engagement with residents. Issues such as waste management in particular present an opportunity to engage with residents while also showing that the municipality can provide a regular service through consistent waste disposal.

Flooding already damages homes and belongings. However, cold, wet, and potentially unsanitary conditions increase the incidence of illness such as cholera and tuberculosis \(^{21}\) (Interview – University of Stellenbosch Researcher). The continued challenge of coping with flooding prevents residents from solidifying their economic prospects and leaves them in the same condition year after year.

While the sheer number of needed houses may be partly responsible for the backlog, the issue of land availability presents another stumbling block. One City of Cape Town staff member emphasized the importance of using land efficiently and expressed the planning department’s efforts to combine areas designated for open space with open storm water drains, combining goals while reducing the demand for land (Interview – City of Cape Town Staff). This is particularly important near informal settlements where high densities and tight spaces prevent major infrastructure construction such as underground stormwater drains. The traditional engineering solution of underground pipes is favoured, however, the lack of space in informal settlements and the barriers to resettlement prevent large underground infrastructure projects from moving forward (Interview – City of Cape Town). In addition, interviewees indicated the importance of rehabilitating wetlands and sand dunes around the Cape Flats to provide a natural flood barrier. Again, however, this strategy requires solving the issue of space and unplanned settlement.

Cultural and historical demands for single family dwellings may prove impossible to maintain in the sprawl of Cape Town, particularly should efforts to protect and rehabilitate natural environments move forward. However, providing high quality, higher rise housing will require both a change in current practice and a change in attitude and expectations. One planner notes optimistically that younger generations are becoming more open to medium- to high-rise housing which may alleviate pressures for space in the future (Interview – City of Cape Town Staff). However, the provision of housing continues to be a major stumbling block, aggravated by the politicized nature of housing in South Africa.

In addition, a major challenge for coping with ongoing or increased flooding is the high densities and compact nature of informal settlements in the Cape Flats. Beginning in 2013, the City in partnership with a local NGO (CORC – Community Organization Resource Centre), conducted a pilot program to explore the practice of “reblocking” informal settlements to decrease the risk of fire and flooding, and to allow space for emergency vehicles and underground services (City of Cape Town, 2013). This program was part of an effort to explore ways to upgrade settlements in-situ to avoid the issues associated with finding new land for resettlement.

An area where the City of Cape Town has received much praise is the Disaster Risk Management Centre, considered by many to be one of the most sophisticated on the African continent with a clear mandate to respond to flooding regardless of level of formality (Interview – NGO, Interview – University of Stellenbosch Researcher). This department has also explicitly incorporated the risks of climate change into plans, including in informal areas. In addition, it uses risk level assessments to help designate which areas must be relocated (working with the Human Settlements Directorate) and which areas are at high risk for immediate response.

While this study was underway during the writing of this paper, a number of key themes have emerged during preliminary analysis. In the following SWOT analysis, we explore some of the sources and barriers of adaptation within the City of Cape Town.

**Strengths**

\(^{21}\) The risk of tuberculosis is already heightened by the high rates of HIV and AIDS in South Africa.
Climate change projections have been incorporated into spatial planning
Experimentation with in-situ upgrading through pilot re-blocking programs with local NGOs
Efforts to clear storm water drains prior to heavy winter rains
Highly regarded disaster risk management strategies – including identifying risk areas prior to each winter season
Established program to respond to flooding through distribution of food and blankets
Collaboration with Human Settlements Directorate to identify priority areas for relocation
Initiative at the provincial level for identifying and understanding adaptation strategies
Awareness and acceptance of climate change projects
Recognition that housing is a major issue for long-term climate change adaptation
University-City of Cape Town collaboration which have the potential to catalyse action (Huxham, Vangen, Huxham, & Eden, 2000; Ziervogel, Waddell, Smit, & Taylor, 2014)

Weaknesses
- Conflict between implementing traditional spatial and environmental master plans and reality of informality
- Economic opportunities in rural areas are lacking; continued in-migration is expected
- Experimentation is small-scale and limited politically
- Disaster risk management programming is responsive; more effort needed to address root problems
- Issues around service provision and housing are enormously politicized making it difficult to change program direction to incorporate climate change

Opportunities
- City of Cape Town is on the high end of skill, capacity and resources
- Informal settlements are an opportunity for poor households to get their foot in the door of better opportunities in urban centre; this reality for many households should not be treated as purely negative
- Provincial support for adaptation
- Collaboration with NGOs, such as reblocking, shows the City can work on a community level and engage residents in a productive way towards an end goal
- City of Cape Town has been successful in promoting itself as a sustainability leader; the next step will be leveraging this towards real action

Threats
- Continued evictions, disconnection of illegal electricity connections, and ongoing conflict over basic sanitation and sewage sustains the tension and conflict between residents and the City.
- Politicization of service delivery and housing
- Conservatism and risk-aversion at staff and council levels
- Adaptation considered an “unfunded mandate” without clear financial resources
- Systemic problems of informality cannot be addressed through piecemeal or temporary solutions
- Lack of legal framework to engage with and respond to informality as a persistent reality

4. MONITORING AND INDICATORS OF SUCCESS

Presently, little to no monitoring and evaluation occurs (Interviews - City of Cape Town Staff). The pressure to respond to crisis leaves little time or resources for understanding why or why not certain practices are working. One practitioner indicated that planners often rely on experiential knowledge in making decisions about the future. However, lacking hard evidence makes experimentation and new ideas harder to justify.
and support. City staff both self-identify and are labelled as highly risk-averse and conservative in decision-making due to fears of political backlash and criticism from communities. However, the potential worsening of an already unsustainable situation creates a major need for new ideas and action to change the status quo. Support must be given to move in this direction.

Monitoring and evaluation processes must not be overly complicated, but city staff need to have indicators of success to support their work, provide feedback for program modification, and to enhance transparency and communication with the public.

5. CONCLUSION

Planning for informal areas require a rethinking of climate change adaptation. Using the challenges facing informal settlements as a lens, it is clear that adaptation is much more than infrastructure and emergency response. Adaptation and sustainability go hand-in-hand and a nuanced vision of resilience is needed at the household and community levels. Whereas traditionally resilience is defined as the ability to bounce back from shocks, there are many gaps in how practitioners understand how households already respond to shocks. Resilience in formal developments may ask for a level of stasis – planning for things not to change during shocks. In informal areas, however, this definition may not be desirable. The ability to bounce back from shocks for a poor household often means bouncing back to poverty. Sustainable development and long-term adaptation must mean more than the status quo for shack dwellers. Due to the continued influx of migrants from different areas of South Africa as well as other parts of Africa, informal areas are constantly changing. The role of the city and urban planning within this context is to build flexibility and responsiveness into their own systems and practices, while at the same time helping informal areas improve the strength and durability of their housing, sanitation, and water provision.

6. REFERENCES

ActionAid. (2006). Climate change, urban flooding and the rights of the urban poor in Africa Key findings from six African cities (pp. 1–8). London, UK.


A World Class African City:
Reflections on the City of Johannesburg’s Place Brand

Zenzile Mbinza¹, Eric Nyembezi Makoni²
Lecturer
Department of Town and Regional Planning
Faculty of Engineering and the Built Environment
University of Johannesburg, 37 Nind Street
Doornfontein, 2028, South Africa
Tel: +27-11-559 6058/ 6350
¹Email: zmbinza@uj.ac.za, ²Email: emakoni@uj.ac.za

Abstract

This paper casts a reflective lens on the city of Johannesburg’s A world class African city place brand. Specifically, the paper questions the “world class” component of this place brand with the view of illuminating the grounds on which Johannesburg is “world class”. The paper reveals incongruences in the city’s aspirations and what the city currently is. The paper establishes that the city of Johannesburg is muddled in confusion as it attempts to effectively deal with the issue of worldling itself onto the global arena as well as having to stay true to its citizens.

Keywords: Place Brand(Ing), Johannesburg, World Class

1. INTRODUCTION

The city of Johannesburg finds itself as a critical nexus where major key tenets of globalisation coalesce. These tenets include hyper-urbanisation; hyper-infrastructure development; intensified flow of finance, and technological advancement. Linked to that are growing demands for social and economic justice. The city therefore becomes an epitome of post-apartheid paradoxes. In all this, the influences of neoliberal policies compel Johannesburg to write itself into the world as a key player in global politics. This process of writing itself into the world is intrinsically linked to place branding. In other words, there is a necessity for the city to conjure up and/or invoke a larger-than-life image of itself, as a means of announcing and sustaining its relevance and legitimacy in a world of fierce competition taking place at city, regional and state level.

The city of Johannesburg, like many other cities, is increasingly competing not only regionally with other metropolitan cities such as Ekurhuleni, Tshwane etc. but also with others such as New York, London, Tokyo etc. In brief then, the whole dynamic of globalisation amongst others, is complicating the way in which cities vie for intergovernmental transfers (locally) and foreign direct investment (FDI) (internationally). Place branding is thus a tactic for differentiating cities. The culmination of these processes lead to a myriad (un)intended interpretations. While the city elevates itself to the world, it risks alienating itself from its citizens. This is primarily so for Johannesburg, as it straddles between meeting its competitiveness as a global player, while at the same time addressing the pressing challenges of social justice as presented by the city’s history of Apartheid.
This paper focuses on the city of Johannesburg’s process of worldling, through place branding. By worldling is meant the deliberate immersing of the city into a globalised economy. It (the paper) does so through the interrogation of the city of Johannesburg’s tagline or mantra; “A World Class African City”. This mantra is essentially the culmination of the city’s place branding process(es) since 2001. The concept of ‘world class’ is loaded with promises that can either promote or thwart the city’s image, particularly in a country where social and economic inequalities are ubiquitous. Following this introduction, the paper presents a brief elucidation of what place branding is. It then moves to unpack the concept of ‘world class’ with the view of problematizing the process of place branding from a developing country city perspective.

2. LITERATURE REVIEW

The literature sought for the pursuance of this paper related to three significant issues. The first issue attempted to grapple with definitional complexities of place branding. Here, the paper starts off rather generically and essentially traces the emergence of place branding. In this regard, reference is made to branding in marketing terms. Second, the literature reviewed delves into the cultural usages of place branding. This second occupation of the literature reviewed is consolidated with the definitional literature. The reason for this is that place branding has many usages. However, the cultural angle has been catapulted because of its significance in light of Johannesburg’s attempts of (i) worldling itself as well as (ii) efforts in regenerating itself for a local populace. Lastly, the literature makes reference to how places, in particular cities, can be espoused as entities of entanglement.

2.1 Defining place branding

The branding of cities has attracted significant academic inquiry recently. However, this has not simplified the process as it lends itself to multiple interpretations across various geographical economies and time. Aaker defines brand personality as “the set of human characteristics associated with a brand” (1997). Although not defining place branding per se, it is apparent that Aaker (1997) and Aguirre-Rodriguez (2014) are of the opinion that non-human entities such as cities can be attributed with human characteristics. Certainly, as Allen (2007) notes, places (including cities) are intrinsically experiential.

Drawing on and extending Allen’s assertions, Lee (2013), defines brand image as a set of associations that consumers retain in their memory about a brand. The ideas of image and personality as espoused by Aaker’s and Lee’s definitions denote deliberate efforts of creation and management. Kavaratzis and Ashworth (2005), argue that the management of the image created through branding serves both present and future aspirations of a city. In the former, place branding practitioners are actively garnering support for their current projects and “products”. In the latter, the same practitioners are continually forging and reimagining the city that could be in order to secure a city’s economic longevity and sustainability. As can be noted from the above, contemporary place processes are ignorant of the past. Taken from this understanding, the city of Johannesburg’s place brand does not sufficiently reflect its historical exclusivity and how it has dealt with this issue. Rather, it is largely geared and oriented outwards to an international audience.

The idea that cities can be referred to as brands implies that cities can narrowly be viewed as being “good” or “bad” brands (Winfield-Pfefferkorn, 2005). It is then imperative on cities to employ decisive strategies. To be precise, Azevedo (2004: 108) suggests that “successful branding requires an understanding of how to develop a brand identity, a brand differentiation and brand personality”. Developing an understanding of brand identity relies on an inward look of the dynamics of the city being branded (Kemp, Williams and Burdeleon, 2012). For Kemp et al. (2012), the internalisation of a locale’s brand process(es) by its residents is crucial. This not only allows and fosters support by residents but by external stakeholders as well. Additionally, it creates an environment in which the brand can be co-created (Kavaratzis & Hatch, 2013). The branding of a location, especially that of a city transcends the mere creation of logos, slogans etc. According to Kolama and Vuolteenaho (2013), place-branding is understood along the margin of a central...
organising function, which function includes the swaying of consumer and stakeholder motivation and behaviour, internal and external communications, ethics and purpose (Lee, 2013). In this way, it is clear to see that place branding is multi-layered and is to an extent, a mode of extending power on the part of the city. The effect of swaying consumer’s sentiments in a particular direction is a form of power. Specifically, Van Ham (2008) argues that city-branding is a form of “soft” power. This form of power is soft in that an individual leverages their agency in their favour through the use of attraction rather than coercion or requiring payment.

From the above, two critical issues emerge. On the one hand, initially, place branding appears one-sided i.e. cities impose their aspirations on a passive audience. This could not be further from reality. City-branding incorporates large amounts of corporate interests (Pike, 2013.) The consumption of these corporate interests signals that there is a lot of leveraging and jostling from the perspective of the corporate world to have its interests not only entertained but proliferated somehow through a city’s place brand.

On the other hand, because of their inability (affordability), the urban poor seem not to meaningfully contribute or direct the trajectory of city’s place brand (Kolama and Vuoleenho, 2013). Considering that city-branding discourses have also espoused the digital age of mass media (Allen, 2007), which is almost always inaccessible to the urban poor, representational and promotional power is widening between corporate interests and the urban poor (Greenberg, 2000).

For van Ham (2008), branding is about both “power and identity”. The monopoly that corporate interests enjoy in city-branding discourses means that urban spaces are increasingly embracing a corporate “persona” rather than one of homeliness and belonging. In this way, corporate interests are easily identifiable in cities. Contrarily, the clout and identity of the urban poor are not so easily discernible. Thus, the spaces (especially those that are physical) within which city-branding discourses find their expression are full of friction(s). Places such as Alexandra, Diepsloot and Orange Farm are cases in point with respect to the city of Johannesburg.

2.2 Brands as Geographical Entanglements

The thinking of cities as brands has an established history in mature economies. The trend is beginning to emerge in developing countries. Pike (2009 & 2013) argues that brands and branding have recently become significant indicators of changing sentiments in as far as economic accumulation is concerned. However, branding built environs such as cities is cumbersome. As Allen (2007) notes, place branding is compounded by four factors. Firstly, the role of government is fluxed in confusion. Governments have to relinquish substantial amounts of control. Rather, they have had to assume the role of garnering support for the brand(s) they (government) put out to both city residents as well as the corporate world (van Ham, 2008). Secondly, governments have to balance the needs of the two abovementioned stakeholders (residents and corporate interests). The third and fourth difficulty factors are related. The third factor is the difficulty of clearly and succinctly defining areas of the city to be branded. Since cities are usually large spatial areas, consistency in branding cities is questionable; and this is the fourth difficulty factor.

The above notwithstanding, Azevedo (2004) maintains that it is plausible to use a brand’s positive image. Also, it is possible for that image to be transferred to its place of origin. What emerges in this context is a two-way dialogical interaction wherein an image or brand can create demand for a place’s products (Azevedo, 2004). In the case of cities, these “products” refer to such amenities as physical and social infrastructure, dense labour markets etc. Karavitzi and Ashworth (2005) argue that any purposeful construction of the idea of sense of place rests heavily on city government efforts of place-branding. The effect and association of where products or brands are from has strongly influenced the practice of city-branding (Azevedo, 2004; Jansen, 2007; Herstein, 2012).
To the extent that certain portions of cities lend themselves favourably to place branding discourse than others, is testament that place branding does indeed create spatial differentials (Pike, 2013). Pike (2009) argues that brand equity is difficult to achieve since place-branding is motivated by accumulation dynamics. These in turn inform brand owner/creator priorities. In addition, (Rantisi & Leslie, 2006) note how financially-challenged city governments have begun to move away from traditional modes of tax incentives to attract corporations. Instead of tax incentives, city-governments have opted for more intensive place branding campaigns.

At the same time, place branding is increasingly being used for city regeneration and economic development programmes under the all-encompassing umbrella of “culture” (Rantisi & Leslie, 2006; Evans, 2003). However, the issue of culture is subjective and can therefore be subjected to multiple interpretations. D’Hautessere (2001) asserts that contemporary place-branding initiatives are institutionally-oriented (city government driven) and neglect the target market, if the target market are residents. The main question becomes “in whose “culture” are city-branding efforts being made?” The multiplicity of questions relating to culture signals contention and thus, non-conformity in application across a range of spaces and through time.

For Johansson and Cornebise (2010), the issue of the use of culture is so rife in place branding discourses that they argue that it has the potential of creating “pseudo-ethnic” neighbourhoods. According to these authors and Linke (2012), cities expressly maintain certain areas for particular ethnic and racial groups. These areas act as entry points to the city for new arrivals. However, the sustainability of these ethnic enclaves is easily eroded by forces such as urban succession and economic changes. In the past, these areas were perceived as being a nuisance by city-governments. Recently, however, they have been paraded as urban regeneration thrusts, convincing tourists of a city’s diversity and cosmopolitanism. To an extent, the city of Johannesburg has employed this tactic in the rejuvenation of the Maboneng Precinct.

Aguirre-Rodriguez (2014) argues that as soon as urban succession occurs in pseudo-ethnic neighbourhoods, cross-cultural differentials begin to erode the messages of city-marketing strategies. The original message needs to change as demographic changes occur over time and space. More often than not, the original message divides rather than unites a transitional society (Jansen, 2007). Therefore, the original message greatly impacts the concept of brand equality. As a result, brand loyalty also suffers.

For the concept of culture to be appropriately diffused into place-branding discourses, Ulldemolins (2014) argues that place-branding should not be misconstrued to encapsulating the physical characteristics of a place. Instead, he suggests that place-branding is a construct of social interaction and engagement. This suggestion has two implications. Firstly, it suggests that place-branding should be a process informed by democratic, participatory processes. Secondly, it suggests that place branding should have a long-term outlook rather than being knee-jerk processes reacting to shocks (Rantisi & Leslie, 2006; Johannson & Cornebise, 2010).

3. OBJECTIVES

The objective of the paper is to critically engage with the city of Johannesburg’s place brand(ing). This objective is borne from an understanding that there hasn’t been much academic inquiry into the theorisation and practice of place branding from a developing country perspective. This inquiry is much widespread in the developed world. As such, this paper seeks to divorce tenets of place branding as inherited from developed country perspectives and usher in nuances which are relatable to a developing country perspective.
4. APPROACH & METHODOLOGY

This paper offers reflections on the city of Johannesburg’s place brand(ing). This reflection is premised on the margins of a critique, which critique is based on both observation and other postgraduate work specifically focussing on the city’s place brand(ing). In this way, the paper is not based on empirical research. Rather, the paper is set out to tease out debate and discussion into place brand(ing), not only in Johannesburg but from the perspective of Global South cities in general.

5. REFLECTIONS (ANALYSIS): Johannesburg: A World-Class city?

Many scholars have attempted to hierarchise cities for various reasons (Sassen in Knox and Taylor, 1995). Some cities are said to be ‘world-class’, ‘global’ or ‘mega’. This hierarchisation of cities in a globalising world, is intrinsically linked to power and control (Knox and Taylor, 1995: 7). The most powerful cities therefore are said to have influence in shaping economic, political and cultural processes well-beyond their geospatial boundaries, hence the use of universalising terms such as world-class, mega and global cities. A glimpse at the global hierarchisation of cities therefore, coincides with these cities level of economic and political influence. Cities in the Global North such as London, New York and Paris for instance dictate top the hierarchy, as they are viewed to have achieved the highest level of development and sophistication, at least from a modernisation point of view.

At the same time, cities in the Global South find themselves languishing at this so called world cities hierarchy. This owes to the protracted history of economic and political marginalisation of the Global South at large. Flowing from this marginalisation of cities of the Global South is the emerging jostling for a world position for recognition on the global stage. Moreover, cities in the Global South have to contend with the ever shifting definitions of what it means to be world class since these definitions are essentially produced and proliferated by the Global North. Tied to this, is the dominance of Euro-American theories vis-à-vis city planning. Thus, the position and narrations of cities in the Global South remain precarious.

Within the last two decades (1994 – 2014), Johannesburg has been grappling with the challenges of shaking off its Apartheid identity while at the same time appropriating a more inclusive image. This process of rebirth has been underscored by the dominance of equally ambiguous concepts of non-racialism and the metaphor of South Africa as a Rainbow Nation. Simultaneously, at an international level, Johannesburg had to grapple with being the gateway of the world into Africa, thus appropriating almost prematurely its “world class” status. For being world class presupposes high levels of development from a modernisation theory perspective. At the same time, it talks to the fostering of social justice i.e. lower income gaps, longer life expectancy, and higher literacy levels amongst others.

In the main, Johannesburg is found wanting with regards to balancing its developmental mandate as espoused in its neoliberal policies on one hand, and its quest of addressing the Apartheid induced socio-spatial and economic imbalances. Thus, the question begs as for whom Johannesburg is a “world class” city. The answer to the question posed is not as important as the motivation for branding Johannesburg the way it has. The backdrop of the city’s place branding process(es) is largely dominated by the attraction of FDI. As such, Johannesburg has painted itself a “world class” city without due regard of making its citizens “world class” as well. The result of this is a positional jostling, an impasse of sorts between the city and its citizens in as far as attempting to relate to the city’s place brand. On the one hand, the city almost forces the notion of “world class” to its citizens. On the other hand, the citizen rejects the city’s claim. So has been poignant this impasse that in July 2013, the Advertising Standards Authority of South Africa (ASA) ruled that the city withdraw a radio commercial as it was “misleading” (Narsee, 2013).
6. **RESEARCH CONTRIBUTION**

The contribution of the paper is drawn from an appreciation of an opening of a dialogue that has largely been missing from a developing country perspective. Place brand(ing) has attracted considerable academic attention in the Global North. This paper initiates a discussion as to where Global South city place brands emanate and what their position will or could be in the future.

7. **CONCLUSION**

While the judgment by the ASA dealt Johannesburg’s place brand a huge blow, it must be noted that the city’s place brand is largely aspirational. With this backdrop then, the city should wiser in tightening up operational deficiencies, which are essentially the platform from which the city’s place brand will continually be challenged. As a social space, Johannesburg has made significant strides in opening itself up. From that perspective, Johannesburg is indeed “world class”. However, this opening up has also meant that Johannesburg has, to an extent, taken on more than it can possibly chew. A possible escape route for the city in this regard lies in its ability to mobilise and marshal its citizens behind its place brand. However, this mobilisation and marshalling needs to transcend superficial campaigns of public participation.

8. **REFERENCES**


Good Governance and Strong Political Will: Are they Enough for Transformation?

Corrine Cash, PhD (Planning)
Email: corrinecash@gmail.com

Abstract

It is a truism to say that environmentally unsustainable, socially inequitable and economically inefficient outcomes persist despite a myriad of plans, policies and legislation all designed with just the opposite set of outcomes in mind. But rare is the analysis that goes beyond explanations such as ‘a lack of political will’ to peer deeper into the systemic and structural dynamics determining the shape of complex social-ecological-systems such as cities, metropolitan areas and other built environments.

This paper presents a 4-step analytical decision-making framework that can help the policy maker and the planner get to the root of poor or suboptimal policy and practice. Put differently, it can help decision-makers in their quest to create Great Places. When applied as a complete entity, this framework, consisting of problem-solving theory (governance and management) and critical theory (critical political economy and resilience), provides a much more rigorous analysis than any one of the four approaches offers on its own. Drawing on results from two rural-urban fringe areas: the Cape Winelands Biosphere Reserve, South Africa and the Niagara Escarpment Biosphere Reserve, Canada, this study demonstrates that in complex socio-ecological systems, planners must look beyond “best practice” or design solutions to recognize the multiple factors (seen and unseen) that influence whether Great Places are created, or not.

1. INTRODUCTION

Cities are expanding in an unsustainable manner. This is problematic for goals of maintaining environmental integrity and human well-being. UNESCO’s World Biosphere Reserve programme is a network of areas that have committed to implementing land use strategies that encourage conservation or more environmentally supportive forms of development. Where one might expect decision-making to be more sensitive to environmental and social needs such as where lands are gazetted as UNESCO Biosphere Reserves, in places with a long track record of democratic decision-making (Canada) and in places where a relatively new democratic government is intentionally aiming at social and environmental sustainability (South Africa), one sees instead a scramble for resources with mixed outcomes (see Watkins, et al., 2003), many of which are suboptimal and founded on environmentally unsustainable land-use practices that privilege particular elements of society. Why is this so?

This paper aims to answer this question by examining two case study areas: 1) Jamestown, Western Cape, which is located within the Cape Winelands Biosphere Reserve, South Africa; and 2) the most southerly portion of the Niagara Escarpment Biosphere Reserve, Ontario, Canada, commonly known as the Greater Golden Horseshoe.

These cases have been chosen because they are located in two very different countries socially, politically and economically, yet both have rural landscapes that experience pressure for development. Areas within Biosphere Reserves were chosen because it is assumed that if sustainable development and protection of
greenspace can occur anywhere in the world, it should be within these areas because their stakeholders must demonstrate a commitment to the pillars of the UNESCO Man and Biosphere Programme before obtaining the status. The overall intent of Biosphere Reserves is to promote sustainable development based on local community efforts and sound science (UNESCO, 2014).

The areas were also chosen because both Biosphere Reserves are close to rapidly expanding major international metropolitan areas (Cape Town, South Africa and Toronto, Canada). Accordingly, it is assumed that because of this, tension between protection and development should be much greater than if the Biosphere Reserves were located far from major urban centres. Examining the tension between the requirement to adhere to UNESCO Biosphere Reserve goals and pressure for development due to proximity of rapidly expanding metropolitans provides insight into the key factors that cause land to be developed or protected.

This paper is based on nearly 100 interviews located in both Canada and South Africa, conducted between 2011 and 2013. The interviews were transcribed and coded for emerging themes.

2. CAPE WINELANDS BIOSPHERE RESERVE, WESTERN CAPE, SOUTH AFRICA

The Cape Winelands Biosphere Reserve is located in the Cape Winelands District and the Overberg District Municipalities of the Western Cape Province, South Africa. The majority of the Biosphere Reserve is located in the Cape Winelands District Municipality. For this reason, the paper does not discuss the specifics of the Overberg District Municipality but focuses within the Cape Winelands District Municipality area (see Error! Reference source not found.), and more specifically Stellenbosch Municipality (see Error! Reference source not found.). Stellenbosch Municipality’s plans aim to intensify within the urban edge, at specific nodes identified for development. However, development continues to occur outside of the urban edge and outside of identified nodes for development. Research conducted in the area has revealed why this is occurring, and is elaborated below.
Figure 27: Location of the Cape Winelands Biosphere Reserve (Cape Winelands District Municipality, 2009).
First, influential factors within the urban edge of Stellenbosch Municipality (e.g. growing population, student accommodation needs and land market behavior) affect expansion outside of the urban edge. An important factor that affects housing prices is the student market. Some parents purchase homes for their children to live in while in university, increasing overall prices in Stellenbosch town. This, combined with already high housing prices due to the wealth in Stellenbosch, makes it very unaffordable for many people.

Figure 28: Location of Stellenbosch Municipality within the Cape Winelands Biosphere Reserve (Cape Winelands District Municipality, 2009).

International Convention Centre (ICC), Durban, South Africa
ISBN: 978-0-86970-781-4
(including professionals) to live within the built boundary. For this reason, 75 per cent of Stellenbosch workers commute from Cape Town and nearby towns such as Kuils River.

The current density within the urban edge is 6-7 units/hectare on average, with 3-7 units/hectare in affluent areas and 50 units/hectare in low-income areas. The Provincial Spatial Development Framework calls for 25 units/hectare as an overall target, including flats, and a planning firm identified locations for 17,000 units within the current envelope. This indicates that there is plenty of space for densification within the current boundaries. However, planners are competing with the market because the Municipality has its own vision of where they want to geographically grow while the influential players in the market are trying to dictate direction and push growth in a different direction.

There is also an increase in informal settlements that generally emerge beside existing townships (where black or Coloured people were forced to live during Apartheid) such as Kayamandi and Jamestown. The land for government-supplied housing is located on municipal land, which is often located at the rural-urban fringe, yet outside the urban edge (in areas such as Jamestown). This, in turn, contributes to urban expansion in these areas.

Study Participants (#1, 7, 8, 9, 15) said that many people believe construction is a primary economic stimulant. This, combined with foreign investment and land valued for its development potential rather than its agricultural potential affect whether land becomes developed or protected. This is one of the ways in which capitalist property development influences land-use planning. Developers tell people that development outside of the urban edge is required to stimulate employment in the area (the jobs promised are typically in the form of construction labour, and then as maids and gardeners for those who eventually purchase the homes).

Prior to the most recent economic recession that resulted in a collapse of the housing market, property development was viewed as the solution to social and economic problems. Since such developments were sold or marketed as stimulating economic growth, politicians supported plans that could have been considered as contradicting planning legislation (or they amended plans). Over the past 7-8 years, a great amount of land within the Municipality of Stellenbosch was rezoned from industrial to residential use. However, study participants indicated that many people who are concerned with property development in the region are no longer linking economic growth to the construction and property development industries; rather people increasingly believe that it is better to strengthen agriculture and tourism industries.

Greenfield development continues to thrive outside the urban edge, despite municipal goals of increasing development within the edge. Gated/lifestyle communities dominate Greenfield development with owners beginning with the planting of vines, and then building a wine tasting area. The building of a restaurant follows, next a hotel, and a golf course. Homes on wine estates are purchased as vacation homes, making the market highly vulnerable to global economic conditions. This leads to difficulty for planners who must create plans that are inclusive of all, when there is such a large gap in income levels:

The Gini coefficient [of income inequality] in the Municipality is one of the highest in the world, there is very rich and very poor – no middle class (Study Participant #11).

You have to plan for both groups of people (Study Participant #13).

Planning for the rich and the poor is extremely challenging for planners, as is creating integrated communities where both groups can live and work.
Land is valued by its residential potential rather than agricultural worth, meaning that land value is linked to the profit that would be realized should the property become developed. Farms located on the urban edge are often converted to residential and urban development when there is sufficient infrastructure and market demand.

*People only see land value in the context of it being converted to lifestyle and gated community estates. Land is viewed as valuable in the context of what they could get for it if they sold it to a developer...production is compared to real estate production rather than being compared to agricultural production (Study Participant #11).*

*Land may be worth R2 million in terms of land value for agriculture, but then developers will offer R8 million for them to develop it for residential use. What are they [landowners] going to do? (Study Participant #3).*

Study participants overwhelmingly support a permanent urban edge as a primary method of managing growth, and feel it is necessary if there is real commitment for compact growth.

*Having an urban edge is a very effective policy tool because it brings a lot of clarity to the process even if that clarity is resented by some people (Study Participant #4).*

However, an urban edge has historically been nearly impossible to get legislated in Stellenbosch Municipality because of tremendous political backlash. How often the edge should be reviewed is also an issue that was identified during interviews. Should it be reviewed on an annual basis, every five years, or should it be a permanent line? The answer to this varies from individual to individual.

A private planner described the urban edge as the most ideal speculative commodity because as soon as it is established, developers purchase land that surrounds it and then begin to lobby the government for the line to be extended. Simply put, plans can be changed and that change can happen quickly and in favour of the developer. Developers wait until the municipality changes zoning restrictions or the urban edge before selling the now divided subdivision lots to individuals. Because of the record of urban edge expansion, drawing an urban edge significantly increases the price of land that surrounds the line. It also negatively impacts the economic benefits of using the land for agricultural purposes.

It was felt by some study participants that there are circumstances where developing outside of the urban edge should be allowed. For example the Minister may move the urban edge (if it is an actual legislated urban edge) if a developer promises to donate a portion of land to the Municipality that would normally be unaffordable.

Study participants unanimously feel that politics and power play a dramatic role in planning processes. There is a strong perception that politicians are guided by political gains rather than plan goals and objectives in that they favour politically advantageous developments, even if they counter long-term development goals. This is especially influenced by whether or not the developer of a proposed project promises some type of Trust (where money would be placed to benefit the local community) and/or promises of potential employment to the surrounding area. Certainly a politician promising money or low-income houses to a community will increase his or her popularity with the electorate. This indicates how capitalist property development impacts plans because politicians will support changing a plan or approving a development despite what the plan called for. Such proposals are also often drafted to fit with the theme of the plan (for instance, indicating that it will contribute to social goals of the Municipality).
Public Sector Planners feel that they have little control over the process, even when supported by their Directors, and are at times pressured by politicians and developers to change the rules or bend the law so that developments that do not adhere to long-term planning goals are approved.

Politicians do not care about the plan. They don’t care about achieving the goals of the plan. They care about political control and positioning (Study Participant #23).

There are short-term consequences of doing this, such as impeding the goal of intensifying within the urban edge, and long-term consequences, such as uncontained sprawl. At the same time, private sector planners may also have limited leverage in promoting alternative development options within the urban edge because they simply represent their client. They can recommend environmentally sustainable design and social responsibility initiatives for local communities but at the end of the day, they represent their clients, and the clients decide where and how money gets spent (or does not get spent). Environmentally sustainable design within the urban edge is regarded as best practice for sustainable outcomes because it decreases development of untouched natural land that could potentially be used for agricultural use.

Another point that study participants discussed was that certain political decisions might reflect the political ideology of a certain party at a particular point in time. What I mean by this is that the ANC (compared to, for instance, the Democratic Alliance) may be more likely to double rates on the rich and they may also “support radical restructuring because they don’t feel as strongly about preserving old suburbs or Central Business Districts (CBD)” (Study Participant #7).

Opportunities for developers to submit a proposal are plentiful: a developer can even resubmit a rejected development application to the Municipality after ruling political parties change. A newly elected party may approve the same development application that was rejected by a former party, even if it continues to counter both the Municipality’s long-term vision and the expert recommendations of Municipal planners. The frequency of this may be perpetuated by the chronic political turbulence that has been commonplace within Stellenbosch. Up until recently, parties have been replaced every 18 months to two years, making it difficult for Planning Officials (who are the constant amidst the turmoil) to implement long-term plans. Each time a new party gains power, new Directors are posted and processes are reinitiated. The Planning Department develops a plan, there is a shift in political power, the plan “sits on the shelf” (Study Participant #8) until the party that was defeated gets back in to power, and Planners then “dust off the plan that was sitting on the shelf and hands it back to them” (Study Participant #8). The plan is reduced to being only a requirement to obtain funding because every municipality must develop a plan to obtain funds from higher levels of government. The plan does not get implemented because developers have their own ideas (that tend to counter the plan) about where growth should occur (Study Participant #13). The recent political stability within Stellenbosch Municipality has helped ease these limitations.

Due to the time and money involved in land development, significant resources are spent ensuring that political barriers are removed. There are “expert lobbyists who can win approval regardless of which political party is in power by outright bribery to simply being liked” (Study Participant #15).

Essentially, the resort-style gated communities that are commonplace in the Cape Winelands Biosphere Reserve area, in the opinion of the Planners, do not comply with goals of sustainability because they appear outside of what planners consider to be the urban edge and they tend to be low-density settlements. Based on the Municipal Spatial Development Framework, developments outside of the urban edge should be automatically disqualified, since the vision reveals a clear edge with development occurring within it. It would also include developments that occur within the area identified by planners as areas for growth (even
though their plans have not been legislated).

Ultimately, both Public Sector and Private Sector Planners indicated that real change and commitment to a strong urban edge requires political will and courage.

3. NIAGARA ESCARPMENT BIOSPHERE RESERVE, ONTARIO, CANADA

The Niagara Escarpment Biosphere Reserve is located at 43°10’ to 45°15N and 79°03’ to 81°40’W. It gained formal status in February 1990, covers approximately 725 km and extends north south - from Queenstown, near Niagara Falls, Ontario, to Tobermory, Ontario at the tip of the Bruce Peninsula between Lake Huron and Georgian Bay (Niagara Escarpment Commission, 2013a). The Niagara Escarpment Biosphere Reserve spans eight regions or counties (see Error! Reference source not found.). This study focuses on the Southern portion in the Niagara Region (see Error! Reference source not found.).

Figure 29: Map of the Niagara Escarpment Biosphere Reserve (and the Niagara Escarpment Plan area) (Niagara Escarpment Commission, 2013a)
Main occupations in the Niagara Escarpment vary, from wine production, tourism and tender and mixed fruit farming in the south to cattle farming and adventure tourism in the north (UNESCO, 2013c). There is a rapidly growing wine industry in the South. The population of the Niagara Escarpment Biosphere Reserve is 320,024 (1,090,000 including urbanized areas bordering the biosphere reserve limits (UNESCO, 2013c). These numbers are increasing as urban dwellers move to the area, seeking solitude in the countryside and sometimes clashing with the families who have lived there for generations. Land in some places is rapidly becoming developed, causing serious threats to community preservation of the area through, for example, increasing land prices and property taxes (Niagara Escarpment, 2013b). How this impacts the socio-economic landscape is a valid concern. Occupants of new estate-style homes and quaint wineries live side by side with multi-generational farmers, and middle-income and low-income families.

The Niagara Escarpment is subject to various environmental pressures as well. “The Escarpment area is the site of a large mineral aggregate extraction industry. Demand for permanent and seasonal residences in many areas is intense” (Niagara Escarpment Commission, 2013a, no page).

The Niagara Escarpment Commission website states “The Niagara Escarpment Biosphere Reserve has been planned to reconcile conservation of natural resources with their sustainable use by permitting various land uses through the administration of the provincially adopted Niagara Escarpment Plan” (Niagara Escarpment Commission, 2014).

The Niagara Escarpment Biosphere Reserve geographical area and the Niagara Escarpment Planning geographical area are the same. So, planning legislation for the Niagara Escarpment Biosphere Reserve area is dealt with and covered under the Niagara Escarpment Plan. The Biosphere Reserve designation itself confers no legal authority of legislated requirements. However, Biosphere Reserve status confers a sort of
“symbolic capital” on the area, leading conservationists to believe they have the moral and ethical “upper hand” regarding development in the region.

Based on the interviews with study participants, the legally abiding processes of the plans are met in practice; however, that does not mean that study participants feel that the outcomes are fair or adhere to what they consider to be environmentally or socially optimal. Simply stated: it does not mean that the outcomes are desirable just because a process is followed.

First, gentrification is viewed as the most significant development issue within the Niagara Escarpment Biosphere Reserve.

*I think what the big issue with the Niagara Escarpment Plan and then what it’s done is you’ve seen a lot of gentrification for lack of better terms, happening in that area. It’s the playground of the real rich. The Green Belt is trending towards that same direction where it’s just huge homes, not farm related really, and you’re creating these gentlemen estates for lack of better terms, throughout the area because no new lots are being created. People are bidding up the prices if you want that. They’re the ones who are buying it. They’re the ones who are overbuilding on it, and then what does that mean? You’re changing the rural community fundamentally. And that I think is one of the unintended consequences of both the Niagara Escarpment Plan and the Greenbelt is...you’ve really changed the fabric of who lives there and the nature of their activities on the land base. If they’re farming, it’s probably for tax purpose or they want to have a couple of horses. It’s something they want. But it’s not a true agricultural preserve in that sense either (Study Participant #12).*

The Planners that I interviewed feel that throughout the Niagara Escarpment area, there are dramatic land use changes where farmland is being converted to private estates, including single, farm-size properties, often with a huge house, sometimes only for weekend use, and estate style homes. The people who move to the escarpment tend to be wealthy and are attracted to the peaceful, natural surroundings that the Niagara Escarpment offers. New residents who farm typically do so because they benefit from tax savings or they want to have horses for recreation. But study participants do not consider such use as truly agricultural. The people who have lived in these areas for generations see an increase in their taxes and likely move, until the entire area is owned by the wealthy. The other concern expressed by planners is whether or not such estate developments are sustainable from a private servicing perspective (specifically, whether or not the groundwater can support the development because such homes often have pools, and other water intensive activities are performed).

Study participants admitted to questioning the impact building “monster houses” has on land values. It was noted that it is becoming too expensive for people to live in rural communities. However, a Planner that I interviewed stated that low-income people should live in urban areas anyway “because it is a trend and it costs more overall (3-4 times as much) to live in rural areas versus urban areas”. Furthermore, no study participants could think of many low-income earners (represented by those living in social housing, for instance) who live in the Niagara Escarpment Plan area, other than farmers who are struggling with minimum resources. I was told by a public sector Planner that there are no support systems in rural areas, as opposed to many support systems in urban areas. He also stated that public trails within the Niagara Escarpment allow for people of all socio-economic classes to enjoy nature and there are urban parks that make nature accessible to those who cannot afford to travel to the non-urban portions of the Niagara Escarpment area. He furthermore explained that low-income or social housing would not be built in the Niagara Escarpment area because such housing developments must be placed where services are located (for instance, where people can use public transport). There is simply a lack of resources (education,
employment training, etc.) for low-income individuals who wish to live in the Niagara Escarpment Plan area and they would not be able to easily break out of the poverty cycle.

Another area in which the plan is followed but most study participants perceive as being incompatible with goals of social and environmental sustainability is around the activities of the aggregate industry.

There are 83 quarries in the Niagara Escarpment Biosphere Reserve area and the stone and aggregate is primarily used locally, for building roads and other construction projects. Extraction can only take place in the areas indicated in the Plan (specifically the rural area) unless the aggregate companies obtained a license prior to the plan being legislated in 1985 (referred to as the grandparent clause) in which case they can mine wherever the license allows. Prior to 1985, some mines agreed to move once they completed the mining; however, they ended up simply expanding since this was easier than relocating. Many of the pre-1985 licenses are expiring, meaning in the future no companies will have permission to mine in natural or protection areas.

Primarily the individuals who are involved in the decision-making process (including Niagara Escarpment Commission Planners and the Commissioners whom I interviewed) do not object to aggregates mining in the Niagara Escarpment. But, they do feel that it must be conducted in the areas identified within the plan and within the rules pertaining to mining. The aggregate industry brings employment and revenue to the municipalities and the Province, and it provides material for Ontario projects because, representatives from the aggregate industry argue, using local material for local projects is cost-effective and better for the environment. The mining companies want government to understand that mining is just as important to the Province as the Niagara Escarpment natural features.

However, those who object to the aggregate industry (primarily environmental groups and members from the general public) feel that simply limiting mining to Mineral Resource Extraction Area is inadequate because these boundaries are not based on ecological systems or water science. The impact of mining is far reaching and key environmental systems in the natural and protection areas may be significantly negatively impacted and/or permanently altered and degraded by mining in other areas. The mining industry may make promises to compensate for the impact of mining activities by planting trees elsewhere in the escarpment. But critics feel that planting seedlings to make up for the mature trees that they destroyed is not adequate or desirable because it, among other things, permanently changes the landscape (Study Participants #7 and 13). Furthermore, some worry about the scale of proposed mines and their impact on the environment (Study Participants #7, 8, 13, 15).

A number of environmentalists, and a couple of the Commissioners who work for the Niagara Escarpment Commission, feel that arguments that companies make such as limiting greenhouse gases and climate change because the aggregate is mined close to the local market, is an excuse that is not substantiated with science or quantitative evidence.

Local people must tolerate excessive noise, dust, disruption to their lives of a 24-hour operation, concern that the vibration from when they blast the rock will impact their home and property value (as well as causing annoyance to their own lives), and the hole left in the ground after the company completes its work poses a safety concern. Study Participants (#8 and 14) also felt that since many of the mining companies are foreign owned they may not be as sensitive to the needs of local people and a considerable amount of the revenue leaves Canada. There is a feeling that most people do not realize that the aggregates extraction companies are actually foreign multinationals and they purposely mislead Canadians into thinking otherwise to make it seem as if all the economic benefits remain local (Study Participants #5, 6, 8, 14).
Opponents to mining also distrust the mining companies. Although mining is only allowed in areas designated Escarpment Rural Areas in the Niagara Escarpment Plan, companies can apply for an amendment to the Plan so that they can expand to new areas. Currently, the aggregate operators seek amendments to the Niagara Escarpment Plan more than any other party or group. There is a perception that some Commissioners are more likely to side with the companies since they are closely affiliated in one way or another to them, despite the fact that they remove themselves from discussions when a conflict of interest occurs (Study Participants #11 and 15). Others feel that declaring a conflict of interest adequately addresses any potential conflicts that may arise. Some also feel that Niagara Escarpment Commission officials are more likely to support the mining industry.

We have a problem with the Escarpment Commission. Is it a conflict of interest? I would say yes (Study Participant #5).

An aggregate application, especially now that they’re so deep below the water level, especially now, but at any time, they’re messing around with water systems, which is very important to the ecology of that natural area, no matter what you do. It would just be a no-go zone for me, including in the boundary lands (Study Participant #8).

If their proposals for expansion are not approved by the Niagara Escarpment Commission, the aggregate companies appeal to the Environmental Review Tribunal and this marks the beginning of a very long, expensive process that more often than not results in aggregate companies winning. All but one of the study participants said that hearing processes favour the companies because they can afford the multiple lawyers, scientists, and staff that are necessary to complete the process. Companies can benefit and take advantage of the fact that the government and other stakeholders have a lack of resources, in the way of fiscal, people, time and experts.

Opponents to mining feel that there is a conflict of interest within the government because the Ministry of Natural Resources is in charge of both granting licences to the mining companies and overseeing the Niagara Escarpment Commission.

There is a general lack of trust towards the aggregate companies, and a feeling that they purposely mislead the public.

The quarry operator [in X area] issued newsletters weekly on the progress on the hearing, writing it from their point of view, sent the newsletters to the local papers who don’t have any reporters, or very few, and they just printed it as is. And had quite a few experts and lawyers on hand whereas we had very few on the other side. So it was unbalanced in that way. And this is a case where they had the opportunity to buy land outside the Escarpment planning area, and could have done it and didn’t. They bought this land instead; probably because they got it cheaper or something (Study Participant #13).

However, it was pointed out that civil society could join forces (environmental groups work together, for instance) to fight the mining companies through collective power (Study Participants #4, 5, 6, 8, 10). Study participants who represent NGOs all believe that this more or less happens; resulting in a more powerful entity than a group would be on its own. An example of this is the Coalition on the Niagara Escarpment (CONE). CONE “is a non-profit alliance of environmental groups, conservation organizations, and concerned citizens and businesses founded in 1978 and dedicated to the protection of Ontario’s Niagara Escarpment” (Coalition on the Niagara Escarpment, 2013).
Ultimately, it is felt by all those interviewed that aggregate companies will be very actively involved in the 2015 review of the Niagara Escarpment Plan. It is perceived by the majority that the aggregate companies will benefit from any changes to the plan. Specifically, there is a perception that the economic power of aggregate companies will influence politicians and government officials to support their needs. Therefore, there may be more land that is allocated to the aggregate companies to meet their mining needs, for instance. The expansion of the aggregate industry is symptomatic of a larger problem: urban sprawl.

Urban sprawl was described as a terrible problem, especially in the Peel and Halton regions of the Niagara Escarpment Biosphere Reserve area. More and more people who work in Toronto are living farther away and commute to the city every day. Furthermore, the population of the Greater Golden Horseshoe is increasing, as this is one of the cities where immigrants are most likely to settle when they first arrive in Canada. This means significant pressure on municipalities as they plan for growth. The Province’s Places to Growth Act and Growth Plan address this issue and have identified where and how each municipality should respond to growth pressures. Provincial policies act to direct growth to defined intensification areas within each municipality.

Municipalities located within the Niagara Escarpment Plan area are under considerable pressure from developers and market forces to grow because of the natural beauty in which they are located, their proximity to Toronto, and the fact that the Niagara Escarpment covers a narrow strip of land. Municipalities are also forced, via the Places to Grow Act and Plan, to implement and enforce compact communities through commitment to growth management strategies and denser development within urban boundaries. This is a considerable challenge for some municipalities because they have already intensified within their boundaries, are forced to grow more to account for rising population; but, are at the same time limited by where they can grow by the Niagara Escarpment Plan and the Greenbelt Plan area (Study Participants #7, 8, 9). Therefore, municipalities must plan for “very dense development within their urban boundaries” (Study Participants #7, 8, 9).

Developers often prefer to develop at the periphery rather than intensifying within city boundaries, including the development of brownfield sites, because it is easier: they purchase land at a cheaper price, they don't have to deal with as many NIMBYists, and they don't have to rehabilitate brownfields. Services and infrastructure are already present in brownfield sites (for example, transit already exists) (Study Participants #1, 2, 3, 4, 5, 7, 8, 9).

Municipal level planners describe some of the tactics that developers use to get the urban edge extended. First, delineating an urban edge encourages developers to purchase the rural land along the outside of the line. They begin lobbying the government to amend the edge so that their land can be developed. Then when it is time for the city or municipality to review their Official Plan, developers become extremely active in the process. Farmers, who find it difficult to make a proper living from agriculture, will also sell their land to developers. Children who inherit agricultural land are also unlikely to continue farming and will wait until the urban edge is extended before selling. It was pointed out during interviews that some think that it is only people who work and perhaps live in urban areas who wish to protect agricultural land whereas many farmers would prefer to sell it because it is unprofitable.

They buy it and they’re sitting on it or are they actually truly farming it and maintaining it for long-term agricultural lands or are they hoping one day that maybe there’ll be a change at the Provincial level that would allow them to develop some of those lands? (Study Participant #4)

Planners don’t mind moving the urban edge but they want to ensure that there is a solid strategic plan in
place if the edge is moved. They don’t want to move it just because there is pressure from developers to do so. One individual explained that planning involves choosing between factors that make up the ideal (Study Participant #12). In one of the group interviews, participants asserted that it is not possible to balance social, environmental and economic goals (Study Participants #8, 9, 10). Instead, a choice among the three must be made. Achieving the sustainability goals of Biosphere Reserve planning while concurrently achieving economic goals (through development) is very challenging for planners, as is meeting environmental goals in urban areas because economic goals are a priority. Yet measuring environmental and economic goals is easier than measuring social goals. It seems, in this case, that social goals are positioned last of the three.

Municipal planners pointed out that some developers would prefer to be able to develop the land between two growth points.

*The people here at Twenty Road, they think that they should be next and their rationale is that you’re just filling in the dots, you’re just filling in a hole between the industrial business park and the other urban areas or the other residential areas so you just fill it in. Why not? I can just service it from here. Just keep going (Study Participant #14).*

Planners also receive complaints from developers who own rural land, are waiting for the status to change to urban development, and are angry when the municipality dictates growth in a different direction. Essentially, all of the developers want the urban boundary to be extended to include their land, even if it counters the vision of the plan. Developers prepare plans that, in their opinion, offer better ideas for regional growth because it includes their land. Planners feel that their plans should not be criticized simply because it did not include a developer’s land where the urban edge will extend. In their view, developers simply want an immediate return on their investment.

*So when we do a land budget, we will say we have enough land to accommodate 100 houses, but there will always be five builders who say, ‘Well that’s fine, but I don’t have any building lots so what about me? I don’t own any land out here’. Well that’s just too bad. I’m sorry you’re just out of luck. For those five builders, that’s not an acceptable answer (Study Participant #15).*

*Anybody that’s buying land is speculating and you either have a one in three or one in four chance of being identified as a future growth area. Those who weren’t included aren’t happy. They will never be happy (Study Participant #14).*

According to a decision-maker within the Niagara Escarpment Commission, urban sprawl has many different definitions and this often depends on how it is measured and perceived. For instance, urban growth may not occur in the Niagara Escarpment Plan area directly, but it is impacted by the consequences of urban expansion in the greater region. Since there is development beyond the Escarpment planning areas, new roads and road widening, electric power lines and other utilities cross the Escarpment. Even something that is viewed as favourable such as extending the Go Train service causes development pressure in the Niagara Escarpment area. One individual had concern that individuals who live in the Niagara Escarpment cannot argue for roads cutting across it for their travel convenience while arguing for protection of the environment from quarries and development because it is inconsistent (Study Participant #1).

Ultimately, study participants feel that urban sprawl must be contained because, among other reasons, it is expensive.

*We have hundreds, thousands of acres, designated for urban development in Niagara: Niagara Falls,*
Thorold, Welland. You want to develop? You don't even have to get an amendment to the regional plan because it's already in the urban boundary. Do it there. Don't do it on the Escarpment (Study Participant #8).

Some characterize urban sprawl as including the abundance of “Monster Homes” built throughout the Niagara Escarpment. Even if they were not referred to as “sprawl” as such, everyone identified them as being a concern, as they contradict the environmental goals that are fundamental to Niagara Escarpment values. According to Ken Whitbread, Manager of the Niagara Escarpment Commission, there is no accepted definition for Monster Homes but they (the Niagara Escarpment Commission) assessed that “a Monster Home in the Niagara Escarpment Plan rural setting generally was 745 square meters (8000 sq. ft.), but the size of lot and site conditions could impact this. The Niagara Escarpment Commission never really endorsed the floor area calculation one way or another but choose to continue assessing new residential development on a case by case basis”.

Critics of the homes are concerned with their effect on the environment, such as the perceived impact that the houses have on water supplies. The perceived environmental impact extends to transportation problems to which the owners contribute (including road construction and pollution), as they may have to drive to Toronto for work and each home has a minimum of two cars.

Neighbours get upset about the size of Monster Homes, the impact that they have on the local community, and blame them for interrupting the ‘nature experience’. This is especially the case for those who live nearby in modest homes and those who have lived in the area for many years, perhaps generations. The builders counter their opponents by proposing what they view as solutions to the objections. For instance, in response to complaints about the visual impact of their home, builders will plan for planting trees around it, claiming that it would then be hidden from public views.

Nevertheless, there is concern that the environment is also permanently altered when development occurs (Study Participants # 5, 6, 12, 14, 15).

*It’s sort of an irreversible change once you put a million dollar home on a property, it will never revert to anything else (Study Participant #11).*

One study participant explained that Canadians like their space and if they have money, they are willing to spend it on space. It was also mentioned that although new immigrants may not enter Canada with the same perspective, it changes over time and eventually they end up also desiring the same space. Planners, it was explained, simply do not have the power to change the magnitude of what people want and the result is those without the type of necessary wealth are priced out of the Niagara Escarpment market.

*If you can afford the lot, the price gets bid up and if you can afford that much for the land, you'll build your dream house and the dream house gets bigger and bigger (Study Participant #14).*

The problem for Niagara Escarpment Commission planners is that they have no choice but to approve the building of Monster Homes if they adhere to the Niagara Escarpment Plan. There is no policy that restricts or controls home size.

**4. DISCUSSION**

The case studies reveal that decision-making processes are highly impacted by a politics of capitalist
development (either property development or resource extraction, in these cases). The influence of promises of economic development and/or return on investment has a considerable influence on planning outcomes (especially because plans can be altered and promises of economic development opportunities are attractive to politicians). The analysis demonstrates that even acts and plans with the strongest legal frameworks are never completely secure because of the influence that developers have on political decision-making processes. This is the reality in both Canada and South Africa.

Government policy notwithstanding, decision-making is largely influenced by economic development and ‘return on investment’ priorities. In the Jamestown case, the private sector has often determined the direction of development patterns, much to the frustration of municipal planners. The developers are able to sell their ideas to the government and communities because of the dire economic realities for the poor majority. In the Niagara Escarpment case, Niagara Escarpment Commission planners and environmental organizations such as Coalition of the Niagara Escarpment are constantly battling aggregate companies that use arguments centered on economic development benefits and “close to market” economic, and environmental, advantages as reasons why the Niagara Escarpment Plan needs to be amended to allow for approval of new or expanded industrial activities. Monitoring mining activity was also flagged as a major concern because it is felt that companies ignore the law, and mine in places where they should not. With cuts to the number of staff employed within the Niagara Escarpment Commission, this is difficult to prove. Ultimately, plans can be amended and the amendment process can be initiated and influenced by these corporate developers. The result, as the South African case shows, may be class division manifested spatially. This also occurs in the Niagara Escarpment, where the proliferating construction of monster homes is contributing to rural gentrification.

For the past seventy years Canada and South Africa have been in various states of their own forms of change. Despite taking different paths to the current social and economic states, the destination is shaped by the same theme: both are currently in a historic bloc shaped by neoliberalism, with the private sector joining the state within the centre of the constellation of social forces. The capacity for the private sector to impact political decision-making processes are considerable, especially during moments of economic vulnerability (such as the economic instability realized globally since 2007).

Furthermore, the past seventy years have been marked by greater consumption, meaning that consumer demand drives private sector behaviour and vice versa. This is important because the private sector does not operate on its own; indeed it responds to consumer wants and works very hard to raise, manipulate and direct these wants. These consumer wants require resources and land, and hence the cycle of ecological depletion continues.

We have seen that ideologies of economic development, has tremendous impact on the type of development that occurs in the Cape Winelands Biosphere Reserve and the Niagara Escarpment Biosphere Reserve. In South Africa, real estate and leisure companies have enormous influence on whether a development is approved or rejected. We also saw how developers use arguments of economic development (and even arguments for environmental sustainability) to obtain buy-in from other actors and as primary grounds for asserting that the government should approve their development application (even if it entails amending or altering existing plans). In the Niagara Escarpment case, we saw how mining companies use arguments based on economic development gains and “close to market” advantages as the primary reason why the Niagara Escarpment Plan should be amended to their advantage.

See Cox (1981 and 1987) for an explanation of the term “constellation of social forces".
The cases also reveal how the economics of land activity has altered who can afford to live in both case study areas. The wealthy move in, while the poor are priced out of the real estate market. Furthermore, the main theme that emerged from both case studies is that the biggest threat to security of ecosystems is a persistent and orthodox form of economic development.

In both contexts, and notwithstanding existing protective land use policy and legislation in both locations, decision-making within both case study areas is largely influenced by market approaches to economic development and ‘return on investment.’

Six conditions seem to be required to prevent development in areas that the public considers worthy of protection: (i) sufficient economic resources; (ii) adequate knowledge; (iii) forgiving time scale; (iv) a capable state; (v) robust legal structure; and (vi) favorable global context. These factors are derived from the analysis of the two case studies in combination with insights from the literature, and have been confirmed by study participants through interviews and in follow up exercises such as presentations made by the author in the study areas. I now turn to a brief discussion of each.

4.1 Sufficient economic resources all around

The private sector’s tactic of using promises of economic growth benefits to secure approvals for new undertakings may be more or less important depending on the particular historical and socio-economic context. Canada was in a period of manufacturing-led economic growth in the early 1970s – when the Niagara Escarpment Planning and Development Act (this is the act of which the Niagara Escarpment Plan has been devised) was first developed. This is not the case today as the economic climate is much more uncertain. This means that when developers make claims and promises of economic development, they have significant power in planning processes (as witnessed by what the study participants in the Niagara Escarpment area have stated about the pressure that the aggregates mining companies exert in planning processes). In South Africa, the wealth created during the post-war boom period was primarily used to construct the Apartheid system whose legacies remain so problematic today (Shaw, 1983; Swatuk, 1998). Revenue generation is a serious issue in South Africa today, and this reality, when combined with the mobility of capital, undermines politicians’ ability to insist that new developments help to reduce income gaps and other inequities. Therefore, the economic argument that developers make is very tempting for decision-makers. When the economy is suffering, developers can make promises of jobs and/or contributions to municipal funds (through increased taxes, etc.) and this is attractive to decision-makers.

4.2 Adequate knowledge of a particular type

Environmentalism emerged at a particular point in time and continues to force policy-makers to think differently about the range of choices facing them as well as the consequences of particular decisions. Today, the narrative around ‘climate change’ seems to be an insufficient check on development practices, possibly because of the character of the existing global economic realities. Critical political economy literature provides a particular perspective that concentrates attention usefully on the distribution of power and influence among actual and potential participants in decision-making processes. Most importantly, the focus is on ‘state forms’ and not ‘states’, so introducing history and change into the framework. ‘Power’ is represented as a constellation of social forces (ideas, material production, institutions), broadening our perspective such that we can peer into the ‘black box’ of power to see how it is arrayed so that we can perhaps strategize about how to rearrange it. Resilience thinking presents us with, among other things, a way of seeing the dynamic influences of inter-connections and inter-relationships among people, places and things through its conceptualization of social-ecological-systems. It also introduces the notion of
‘tipping points’, clearly a politically charged term, but one that nevertheless has crept into the language of policy, so adding to our ability to understand the full consequences of decisions. It also enhances our awareness of both the risks of and openings for significant change. Exploring the results with the aid of these literatures is a current task for further papers.

4.3 A forgiving time scale

As shown in this thesis, legislation and formal plan approval—good or bad—takes time. In the Niagara Escarpment case it took from 1973 until 1985 for the Niagara Escarpment Plan to receive final approval. In South Africa, the focus is on the immediacy of needed jobs, so if a company can promise economic advantages to an economically depressed area, this may interrupt planning devoted to the goals of sustainability. In the Niagara case, the need to protect the environment was nowhere near a crisis stage. This allowed more time for normal politics to play out and allowed civil society groups to become more effectively involved. In the South Africa case, every decision seems to be made in the context of crisis, particularly where economic growth, jobs and revenue generation for cash-strapped municipalities is concerned. Such a frame closes the window on discussion and considered choice.

4.4 A capable state

Between 1945 and 1985, there was a strong state in place in Canada (with sufficient resources, a broad time frame, and new ideas about environmentalism), which allowed for the Niagara Escarpment Planning and Development Act to get passed. In South Africa during the Apartheid era, the state did not have the greater social good as a focus. From 1985 until today we see that the private sector dominates the constellation of social forces in both Canada and South Africa; therefore “rate of return” is a primary focus. Some would argue that if the economic factors are looked after then everyone in society would ultimately benefit while others are less concerned with the greater social good and are primarily concerned with generating wealth for a particular group of people. This is having mixed results in both Canada and South Africa as some people are benefiting economically while others are not. The logic behind the “trickle-down” theory of poverty reduction depends on infinite growth and does not address inequity. In a world of limited biospheric capacity and unacceptable (and dangerous) inequity, “trickle down” cannot work. As we move toward greater income and related gaps in both South Africa and Canada, the likelihood of a capable state emerging to deal effectively with these issues will require careful strategic action on the part of social forces outside the state, committed leadership within the state, and at least triple-E bottom line buy in from key elements of the private sector; in other words a creative coalition to rearrange existing social forces along a progressive trajectory.

4.5 Robust governance and management structures

Generally robust governance and management structure are in place in the Niagara Escarpment case and were cited as a major reason why the core area within the Niagara Escarpment Plan has enjoyed largely effective protection. An area for improvement in the Niagara Escarpment case would be feedback because study participants stated that weak monitoring of the Niagara Escarpment Plan effects and compliance is a significant flaw in the planning process. In South Africa some of the planning laws go back to the Apartheid era (for instance, one of the most important pieces of legislation for planning in the Western Cape is the Land Use Planning Ordinance (Ordinance 15 of 1985)). It is also difficult for planners to get plans legislated in both South Africa and Canada. Better entrenchment and enforcement of plans that aim for sustainability and social equity are required.
4.6 A favourable global context

During the entire time that the Niagara Escarpment planning process was underway (ultimately leading to the Niagara Escarpment Plan and Development Act), a Keynesian economic system and a long economic boom cycle were in place. This meant that the state had a strong role in the constellation of social forces both locally and globally. The resulting legislation has survived the turmoil of the last thirty years. However, under today’s hegemonic neoliberal world order, the private sector plays a much stronger role and shares the centre of power with the state. With that said, concern about the impacts of unsustainable development and climate change is very much part of the global dialogue. Companies must therefore be somewhat accountable for their development actions. Nonetheless, the present system is anything but conducive to creative and progressive legislation, both in Canada and South Africa.

5. CONCLUSION

In this paper I have discussed the results of research that explored how and why development occurs that counter goals of environmental sustainability in the Cape Winelands Biosphere Reserve and the Niagara Escarpment Biosphere Reserve. In both case studies, we have seen that economic development is often regarded as more important than environmental sustainability goals, especially during times of economic downturn. Ultimately, legislation matters, and that the processes used to maintain that legislation are as, if not more, important than the process in arriving at the legislation itself – transparency, accountability and participation are indispensible elements of good governance and management. But often, “good governance” is not enough as economic forces and powers have significant influence on outcomes. Furthermore, economic, social and political conditions that exist at specific historical time periods steer the realities that shape planning outcomes.

6. REFERENCES


Philosophies of Historic Spaces, its Traits, Congestion and Contestation: A Case of World Heritage Sites in Kathmandu

Sarbeswar Praharaj
Assistant Professor and Head -Department of Planning
School of Architecture and Design, Block- 8A-301,
Lovely Professional University, Jalandhar-Delhi G.T. Road,
Phagwara, 144411. India
Office Phone: +91 01824 444086, Mobile: 091-9510 759511
E-mail: sarbeswar.praharaj0905@gmail.com

Abstract

Historic public spaces are one of the most defining elements of vibrant communities and matured urban landscapes. Cities of past and today have laid great emphasis on provision of public spaces and have defined the idea of livability through them. But, in the context of increased urbanisation, excessive pressure on urban land is resulting shrinking of historic spaces and vanishing of old legacies from traditional core cities. Asian cities are blessed with some of the greatest wealth in terms of Natural and built spaces, cultural heritage and vibrant communities. Nevertheless they are also one of the poorest users of these assets for managing invaluable urban resources and creating community ownership. In this context, this paper tends to instigate the urban structure of Kathmandu city, the world heritage site within it, its space hierarchy and organization of active public realm. Urban grain analysis, space order assessments and public space management framework in core city areas of Kathmandu have been compared with other similar nature Asian cities. Attempt has been made to analyze the nature of transformation of spaces from public to private and attached community activities with each type of spaces. Special emphasis has been laid on urbanisation resulted changing demand pattern in the city and threat to core heritage and space elements and emerging contestation in urban fabric. Philosophies of contestation in urban landscape of Kathmandu is been explored by comparing the old city fabric, building culture and community interactions with contemporary emerging city structures and space elements. Vision has been laid out to find ways to ensure co-sharedness and harmonious community living through bridging the old legacies and modern outfits in the historic city of Kathmandu.

Keywords: Heritage, Public Spaces, Urban Landscape, Kathmandu, Liveability

1. INTRODUCTION

Public spaces play a vital role in the social life of communities. They act as a ‘self-organizing public service’, a shared resource in which experiences and value are created (Mean and Times, 2005). These social advantages may not be obvious to outsiders or public policy-makers. Public spaces offer many benefits: the ‘feel-good’ buzz from being part of a busy street scene; the therapeutic benefits of quiet time spent on a park bench; places where people can display their culture and identities and learn awareness of diversity and difference; opportunities for children and young people to meet, play or simply ‘hang out’. All have important benefits and help to create local attachments, which are at the heart of a sense of community.
City life was made possible by an “ordering” of the urban populace in terms of appearance and spatial location such that those within the city could know a great deal about one another by simply looking (Lofland, 1973, p.22). Kevin Lynch argued for “legibility” as important quality of the city in The Image of the City. According to him, the legibility of the city, the ease with which a city part can be recognized and can be organized into a coherent pattern (Lynch, 1960). The success of a particular public space is not solely in the hands of the architect, urban designer or town planner; it relies also on people adopting, using and managing the space – people make places, more than places make people.

Kathmandu, the gateway to the Democratic Republic of Nepal is one of the oldest urban footprints on globe shows both continuity and cultural traditions which is unique in its own form. Spectacular transition from public spaces to private domain and people’s attachment and activity evolution has shaped magnificent blending of built form and community practices. This piece is an attempt to analyse the historical city from perspective of community spaces ranging from neighborhood level to city level and tend to explore contemporary contestation in urban fabric of Kathmandu.

2. LITERATURE REVIEW

Several relevant literatures have been referred in order to establish a strong background for the study and identification of pointed research questions. In-depth research on attachment of significance and values to monuments and its adjacent spaces have been carried out and the role of community and local perception on heritage and public spaces has also been explored. Jonathan Keats (1991) in his Italian Journeys, CH-6 mentioned “Places become marked with our emotions as if they were indelible stains. What we felt when we were there at the time is enough to damn or bless the city for ever”. This clearly signifies that spaces have a deep relation with memory as valued by communities and outsiders. In his book Landscape and memory, Ken Taylor argues that “cityscape is not looked on as simply a pretty picture or as a static text: rather it is the expression of spaces as cultural process: as part of a ‘process by which … identities are formed’. The connections, therefore, between spaces and identity and hence memory, thought, and comprehension are fundamental to understanding of cities and human sense of place”. Central question which is emerging from these established theories is the fact that whenever we talk about public spaces and values, we need to look from the perspective of the communities who assign values to the spaces. Also we need to explore various levels of spaces as used and designated by locals.

Thorough research has been done to understand the linkage between urbanisation, growth, changing mindsets, preferences and their impact on the spatial modifications and urban contestations. Zetter and Watson noted in the Introduction to Designing Sustainable Cities in the Developing World that “globalisation has dramatically impacted city design with two particular negative outcomes. One is the accelerating destruction of the patrimony of indigenously designed and developed urban places and spaces, with culturally-rooted built environments eroding. The other is that the pressures are commodifying the place-identity of historic urban places spaces and places, detaching them from their local, spatial, and temporal continuity, whilst still representing them as preserved authentic artefacts for global cultural consumption”. This phenomenon of urban decay is mostly persistent in developing cities of China, India, Nepal and many of African cities. Popke and Ballard in the paper- Dislocating modernity: Identity, space and representations of street trade in Durban, South Africa emphasized that “The specific contours of South Africa’s ongoing transition will depend a great deal upon the ways in which the country’s citizens manage this negotiation of space and identity”. These literatures orients this research towards few of very crucial questions like what kind of demographic and social changes is faced by these developing cities and what are their spatial impacts on urban set up and place making.
3. OBJECTIVES OF THE RESEARCH

The literature review has given birth to the following research objectives that have been thoroughly addressed in this paper:

- Identify the community value of public spaces at various higherarchies with designated specific uses.
- To co-relate urbanisation pattern, spatial and socio-economic changes in the core city areas and their impact in physical fabric and associated community practices.
- To map out the pattern of transformation of spaces with time in the heritage core areas.
- To explore the emerging nature of congestion and contestation along with transformation of spaces, its uses and associated values.

4. APPROACH & METHODOLOGY

The study is premised on the fact that great cities of past having excellent pattern of urban fabric and interactive spaces has provided community all the scope to interact and built peoples cities. But in the context of rampant urbanisation in last couple of decades coupled with greater flow of tourists has resulted in cultural and physical hegemony in the traditional cities. Disrespect to heritage structures, spaces is not only found resulting decay in old cities, but also the change in community fabric is also apparent. Developing practices of responsive development and awareness generation is therefore has become a prime necessity.

Primary and secondary data have been collected through field studies for understanding urbanization trends, city fabric and organisation of community spaces. Statistical analysis, visual surveys and photographic documentation etc has been carried out in-order to interpret the observed scenario in the city of Kathmandu city with specific focus on the world heritage site of Kathmandu. Specific attention has been given to discussion and interview with people and groups in-order to find out the cultural traits, community practices and link them with physical spaces.

5. RESEARCH ANALYSIS & FINDINGS

The following section deals with analysis of the urbanisation pattern of Kathmandu and the unique heritage elements and public spaces in the core city areas. The urban spatial fabric of Kathmandu old city has been compared with other similar nature Indian cities and their nature of degradation and transformation has also been assessed. The emerging pattern of congestion and contestation within space elements and its associated values have been dully emphasised in this section.

5.1 A Brief Introduction to the City of Kathmandu

Kathmandu Valley geographically situated between the latitudes 27° 32’ 13” and 27° 49’ 10” north and longitudes 85° 11’ 31” and 85° 31’ 38” east and is elevated at about 1,300 meters (4,265 feet) above sea level. The Kathmandu valley comprises of three districts, Kathmandu, Lalitpur, and Bhaktapur, together which cover an area of 899 square kilometers. The three valley districts have a total of 150 local administrative units (Village Development Committees and Municipalities), out of which five city governments have the major concentration of population and economic activities. With more than 1.5 million people, (220,000 households) the Kathmandu Valley is the most important urban concentration in Nepal.

Kathmandu metropolitan city with a population of 671846 is not only the largest urban conglomeration in the valley but also the principle city of Nepal. Lalitpur sub metropolitan city (163924), Bhaktapur municipality (74707), Kirtipur municipality (37877) and Madhyapur thimi municipality (39988) are the other urban footprints in the Kathmandu valley.
5.2 Trends of urbanisation and emerging contestation in Kathmandu

Urbanisation in the country of Nepal is highly skewed. Among the five regions of the country the central region (where Kathmandu valley is located) houses 49.7% of the country’s urban population. As far as city primacy is concerned (Table-1), Kathmandu with a population of 671846 and four city size values of 1.84 features at the top with distinction. The preliminary census report of 2011 shows Kathmandu’s population growth by 60.93 percent compared to Nepal’s population growth, 14.99 percent, in a decade.

Table 8: Emergence of Kathmandu as a primate city in Nepal

<table>
<thead>
<tr>
<th>Region</th>
<th>Largest Urban Centre</th>
<th>Population in 2001</th>
<th>Four City Size Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern</td>
<td>Biratnagar</td>
<td>166,674</td>
<td>0.83</td>
</tr>
<tr>
<td>Central</td>
<td>Kathmandu</td>
<td>671,846</td>
<td>1.84</td>
</tr>
<tr>
<td>Western</td>
<td>Pokhara</td>
<td>156,312</td>
<td>0.92</td>
</tr>
<tr>
<td>Mid-western</td>
<td>Nepalgunj</td>
<td>57,535</td>
<td>0.47</td>
</tr>
<tr>
<td>Far-western</td>
<td>Mahendranagar</td>
<td>80,839</td>
<td>0.63</td>
</tr>
<tr>
<td>Nepal</td>
<td>Kathmandu</td>
<td>671,846</td>
<td>1.38</td>
</tr>
</tbody>
</table>

Source: Central Bureau of statistics, Nepal

Kathmandu being the capital of the country with ample economic opportunities coupled with the country’s political unrest in last few decades has resulted in rapid change in the city. Rapid urbanisation in the city has influenced the land use change considerably as seen in Table. Built up spaces has increased to 5 times in last three decades where as open areas and cultivable land has been reducing (Table-2).

Table 2: Changing land use context in Kathmandu

<table>
<thead>
<tr>
<th>Land use</th>
<th>1976 MSS</th>
<th>1989 TM</th>
<th>2009 ETM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban/Built up</td>
<td>11.0</td>
<td>23.1</td>
<td>51.5</td>
</tr>
<tr>
<td>Open area/No use</td>
<td>15.3</td>
<td>3.9</td>
<td>0.3</td>
</tr>
<tr>
<td>Water body</td>
<td>1.0</td>
<td>0.7</td>
<td>0.4</td>
</tr>
<tr>
<td>Cultivable land</td>
<td>62.3</td>
<td>61.0</td>
<td>40.8</td>
</tr>
<tr>
<td>Natural Vegetation</td>
<td>10.4</td>
<td>11.3</td>
<td>7.0</td>
</tr>
</tbody>
</table>

Source: Central Bureau of statistics, Nepal

This rapid change has negatively influenced the built fabric of the city and space orientation. The old city area has been under constant threat of revitalization and commercialization which meant for a makeover of past legacies, building cultures and community fabric. Contestation was soon appearing not only in the older part of the traditional city, but a complete different divided city was apparent in the outer city and peripheries.

5.3 Kathmandu: The Valley of Historic spaces and rich traditions

Cultural heritage of Kathmandu valley is embedded in the historic spaces and rich traditions which can be illustrated by seven groups of monumental buildings. These seven include the Durbar Squares of Hanuman Dhoka (Kathmandu), Patan and Bhaktapur, the Buddhist stupas of Swayambhu and Baudhanath and the Hindu temples of Pashupati and Changu Narayan which is divided in seven monument zones. The valley was listed in the UNESCO World Heritage Site as a
single site comprising of seven monumental zones (Jenkins et. al., 2006). These monuments were defined by the outstanding cultural traditions, manifested in their unique urban settlements, buildings and structures with intricate ornamentation displaying outstanding craftsmanship in brick, stone, timber and bronze that are some of the most highly developed in the world. Major monuments are in Durbar Square, the social, religious and urban focal point of the city, built between the 12th and the 18th centuries by the ancient Malla kings of Nepal. The Malla era had been the remarkable period in terms of development of art, architecture, and urban planning, infrastructure achievements and socio-cultural institutions for urban management and during this period the expanded town was divided in three kingdoms Kathmandu, Patan (present Lalitpur) and Bhaktapur.

It is not unique for old Asian cities to have monuments of invaluable aesthetics and architectural legacies. But the contact between people, communities and these buildings and heritage monuments are often missing. Kathmandu is surely a rare contrary where the spaces and heritage sites are still defined as they are by the people themselves giving an identifying characteristic to the city, its spaces and people.

5.4 Delineating Community Spaces in Kathmandu

Kathmandu is the prime cultural centre of Nepal. Owing to cultural importance and diversity, community spaces in Kathmandu are in abundance and are of various kinds. Community spaces are where people discover the value and benefits of public life. These actually authenticate the city’s image and identity. The squares and streets of Kathmandu core are the foremost in advocating this reality. These are actually the places for social activities and maturing of culture itself. As such, these are the indication to the city’s evolution, glory etc. These are not only the breathing spaces of the city but are the places for interplay between people, activities, movement and urban forms. Experiences are created, ideas are invented and tradition is continued through the blending of spaces and people in Kathmandu.

5.5 Evolution of Community spaces

The pattern of living and socio-religious set up of the societies emphasize community oriented nature. The people are required to discharge their social and religious obligations through group actions. The innumerable festivals, ‘Jatras’ and feast are celebrated collectively. Basic need of open spaces for economic activities like drying grain and hay, pottery, and the need of light and air in the dense type of settlement. These above factors in combination with the good climate of the region suitable for outdoor activities, can explain the abundance of the exterior community spaces in the settlement. The squares and open spaces of various kinds, the streets and their inter-sections became the natural locates for the community activities and their representation.

5.6 Elements of Community Spaces

The traditional historic core of Kathmandu is characterized by primarily three types of elements as identified from the study:

Primary elements are the physical elements which create a frame for human activity. The paved areas/floors define spaces, building facades with door and windows made out of carved and exposed work encloses the open spaces.

Secondly utilitarian elements, which are used for recreational economic and socio-religious activities e.g. patis (semi-covered space used for gossiping, card playing, puja etc).
Symbolic elements mark the different community space. The variation of style and material of these bring richness to the different squares and places, apart from giving individual identities to the space. e.g. Shrines, Temples, Stupas, Darbar square, Ghats.

5.7 The Hierarchy of Spatial System and Community realm

Dwelling Unit Level Community spaces:

These are courtyard type of spaces, rectangular in plan and are completely enclosed from all sides with continuous facades of dwelling units. “These originally evolved from Buddhist Bahals – a building with central court containing a shrine or small Stupa and room built all around it for Buddhist monk”. As depicted in Figure-2, courtyard acts as a major interaction space between the residents, generally shared by more than 10 households, it is centrally located and also movement across the space makes it lively. As shown in Figure-1, there is gradual transition from public to private space. From the streets, the alleyways, often through the buildings, lead to the inner neighborhood courtyards.

![Diagram of Hierarchy of space systems in Kathmandu core city area](image1)

Figure 31 Hierarchy of space systems in Kathmandu core city area

![Plan form of neighbourhood level, cluster level and street level spaces](image2)

Figure 32 Plan form of neighbourhood level, cluster level and street level spaces

Neighborhood Level community Spaces:

It is the space to discharge the day-to-day social, economic and religious obligations for a group of families. Physically the space is either a closed type or a courtyard type of square or streets or common activity spaces like Dharas, Patis etc. These spaces form secondary...
nucleus for parts of a settlement (Figure-2). The courtyard space is totally or partially paved with brick or stone. It is mainly used for household activities, drying and cleaning grains, spinning, gossiping, playing cards, etc. The spaces are marked with shrines, patis, stupas. The layout of the elements within the space is informal in their organization. The space establishes intimate relationship among the inhabitants.

Neighborhood Level: Street Spaces:

The streets of the settlements serve as active community spaces apart from fulfilling their primary functions, as means of communication and connection between places. As shown in Figure-2, the street implies the streets along with extended plinths of the dwelling along the streets. Streets widening at places accommodate various activities like temples, shrines, Pati etc. which becomes main source of interaction.

City Level Community Spaces:

The city of Kathmandu is enriched with various city level Community spaces with distinguished Characteristics which were observed and detailed out here. Darbar Squares the part of largest and inclusive community realm are the central space of the settlement reflects the desire of the total community of a settlement at large to be recognized as an integrated community and establishes its identity symbolically. The space evolves at a vantage location of the settlement converge. The space is the site of the most important of the settlement, to which the settlement is dedicated. The space is physical and cultural focal point of the settlement. The annual festivals and jatras of the settlement are associated with this space. The squares bring diverse people together for the overall participation. Spaces merge with various elements like Pati, water bodies, dharas, shrines, temples etc. Moreover, these are the open air theatres for an array of displays: from the complex festivals, to the expertise of trade.

Spaces in the form of temples and stupas are more specific to religious and ceremonial activities. Its location is irrespective of proximity of the settlement. They exhibit symbolic expression which add-ons to the aesthetic beauty. The overall amalgamation of the culture, heritage and structural variations brings richness to the place.

5.8 Comparison of Densities and Space relations with other historic cities

According to Lynch, Imagability is that quality in a physical object which gives it a high probability of evoking a strong image in any observer. “The property of ’intelligibility’... means the degree to which what can be seen from the spaces that make up the system that is how many other spaces are connected to is a good guide to what we cannot see, that is the integration of each space into the system as a whole. Urban grain analysis is a useful tool in assessing the urban environment, the street patterns and general massing of an area. Darbar squares acting as vacant space in urban fabric of Kathmandu, Patan and Bhaktapur as well as showing large grains with all the major streets merging to the Darbar Square as drawn in Figure-3.
Identifying the entry points to the Darbar square shows easy and unobstructed access from, to and through the space. Every Darbar Square has six or more than six entry points, some of the entry points are itself traffic nodes. This shows how well the Darbar square are accessible as well as it emphasizes importance of the Darbar square (Figure 4).

The streets are non-axial, short lines this obstruct the visibility and create confusion and reduce the speed but suits the need of tourists to stroll as streets are have innumerable sitting spaces as well as elements of interest in passing through the streets.

Many inside lanes are narrow with steep slope and have alternate approach to the Darbar which are used by local people; the reason may be to design the space with strategic point of view to confuse the enemy. When we compare Kathmandu with Indian cities, it can be inferred that it’s a centripetal development whereas in India it is more or less linear development. Open space in Kathmandu is more consolidated than compared to cities like Jaipur, Bidar etc which have fragmented open spaces. But this spatial consolidation is not hampering the hierarchy of open space.

Transformation of spaces with Time

The heritage core city area of Kathmandu has immense treasure to attract and offer delight to tourists from all over the globe. Huge influx of tourist flow in last couple of decades has given shape to a unique face-off between the local community and tourist population. Due to the fact that tourists cater to economy generation, the core area went through lot of makeover to address tourists and local communities faced tradeoff between continuing tradition and economic opportunities. The buildings, spaces which once used to be designated by community signatures, are now often seemed to be captured and exploited by various interest groups. This is resulting in character destruction and loss of sense of place. The transformation of various levels of spaces has been mapped out in Table: 3.

<table>
<thead>
<tr>
<th>Spaces</th>
<th>Past Use</th>
<th>Present Use</th>
</tr>
</thead>
</table>

Figure 33 Comparison between the urban grain within the core city of Kathmandu and other cities

Figure 34 Entry and circulation dynamics into three Durban Squares of Kathmandu Valley

Table 3: Transforming use of public spaces with time

Spaces and community form in congestion and contestation in Kathmandu

Along with increased urbanisation, social changes and extensive commercialisation the core city areas of Kathmandu has been facing congestion and contestation of many kind as detailed out in following sub-sections:

Social contestation and congestion observed in Kathmandu Valley

With the advent in technology, modernization and rapid urbanization people migrate from other parts of Nepal to the capital city and a heterogeneous society was formed which created the congestion due to conflict of interest from the indigenous people. Cultural hegemony has resulted in contrasting building cultures and spaces.

Physical contestation and congestion observed in Kathmandu Valley:

The main part of Durbar Square is classical with structures having western, neo-classical influence on the right. But mushrooming new buildings surroundings and behind the main part of Dubar Square are the spaces in contrast with each other and the quality of space degrading due to absence of proper control on developments. Contestation in physical form of the public spaces of Kathmandu core city was observed by grain analysis where irregular block grains dictated by topography of the region was drawn, but modernize regular blocks all around these spaces has resulted in hegemony. Wood architecture is the integral part of the cultural landscape of Kathmandu valley, termed as Newrai architecture. This is manifested through the style of settlement, temples and houses. But modernization and haphazard development of the Kathmandu Valley have affected the original traditional setting in many parts as during last decade or cements and concretes are popularly used for construction (Figure-5). Investigating over the fact it was found that it is easier to build the structure with concrete and bricks rather than with wood and the later also costs less in terms workmanship. Also there were no commercial benefit issued by the local authority so as to preserve the traditional architecture and form.
Economic contestation and congestion observed in Kathmandu Valley:

Commercialization resulted mushrooming of new building without any urban design guidelines creating contrast and contestation in urban spaces (Figure-6). In absence of parking facility and lack of control over the traffic and informal sector spaces, the original character of the spaces has been lost. Hanging electric lines creating visual pollution in the streets shows the contestation for services as the planning not done from conservationists approach.

Contestation and congestion observed in management, rules and regulations of Kathmandu Valley:

Before Kathmandu Valley was recognized as a World Heritage Site, Nepal has already paved the ways of conservation by introducing Ancient Monument Preservation Act (AMPA) in 1956 AD. It had assigned the Department of Archeology (DoA) as a concerned government authority responsible to conserve, maintain and renovate public monuments. DoA had introduced the by-laws for the reconstruction of the private house. Besides the AMPA, the Local Self Government Act (LSGA) 1999, the Town Development Act 1988
and the Guthi Corporation Act 1964 are other major legal instruments that deal with management of WHS of the Kathmandu Valley. There are also powers vested with District Development Committees (DDC), the municipalities and the Village Development Committees (VDC). The LSGA gives the elected local government bodies the function and duty to varying degree to record, maintain and preserve the tangible and intangible heritage within their area of jurisdiction. Lack of coordination mechanism between the different responsible institutions and complexity of rules and legislation and lack of responsive enforcement has created the legal congestion and contestation. In 2003, Kathmandu Valley was kept in the danger list of World Heritage Sites. The main reason shown by UNESCO was the loss of urban fabric. International Council on Monuments and Sites (ICOMOS) drafted State of Conservation Report (1998), which stated as “The single overriding issue in protecting the integrity of the KVWHS is the control over damage and illegal development. With few exceptions, the principal religious and public monuments are secure and require only normal maintenance. However, the traditional houses and commercial buildings, which form their essential setting are at great risk and are subject to extreme pressure. If redevelopment continues at the present rate and is not curbed by effective development controls, the authenticity of the WH site will be so severely damaged as to compromise its outstanding universal value”. (UNESCO, 1999 pp:3).

6. RESEARCH CONTRIBUTION

This research is extremely useful for developing world cities of India, China, South Africa and Brazil etc. which have magnificent historic legacy due to its heritage elements and associate public spaces and values. The outcomes of this research highlight that along with changes in urbanisation pattern and socio-cultural preferences, quality and nature of public spaces needs to be re-imagined. As Kathmandu has failed to do so, the spaces are been contested and congested. This must be a valuable learning for other similar nature world cities facing persistently high rate of urbanisation and growth.

7. CONCLUDING REMARKS

It has been observed from the study that, the spaces those were designed for the purpose of community interactions, cultural manifestations, spaces for flaunting the prosperity and strength have become attraction for tourists. Population hike and influx of migrants over last several decades is in fact overburdening the existing community spaces and fabric. Result of the above has been manifested through use of public spaces being more concentrated on commercial returns than public interest and community needs. Character destruction and misuse of community spaces has been translating into a practice of disorder. Due to increasing commercial potential, unmanaged sprawl of hawkers and regular encroachment highly congesting the core city spaces. Due to the fact that the core city area provides ample commercial and tourism potential vehicular flow has increased considerably resulting mismatching sense of place and loss of quality pedestrian spaces. Contestation is expressed not only through the building cultures but also through emerging informal economic spaces reflecting the basics of socio-economic divide at hand. As far as the role of local authority is concerned in heritage conservation and management, it’s a sorry state of affair. Weak mechanism of providing benefit of renovation programmes for common people who owns the houses in heritage site area hindering success of existing schemes of restoration and renovation especially in world heritage sites. Culture and tradition of people manifested through building principles and spaces need to be revived in the historic district of Kathmandu if the world heritage status needs to be upheld.
8. RESEARCH LIMITATIONS

I. The scope of the research is mostly limited within the world heritage site of Kathmandu and it does not take into account of the existing setting and transformation in the other parts of Kathmandu city.

II. The research is only limited to identification of emerging transformation of spaces and contestation. Proposals and design guidelines for restoration and renewal of these spaces are not within the purview of this study.

9. FURTHER RESEARCH

As Ken Worpole, one of the most prolific and perceptive writers about public space, observes: ‘Given the deep social and economic nature of the circumstances that underpin or undermine a vibrant community and public space culture, it is clear that design or architecture alone cannot solve these problems, though in many places there is still a pretence that they can’ (Gallacher 2005 p11). All the seven heritage zones are great potential convivial urban space, it should be assumed as “generative” rather than “parasitic” in nature. There is great scope for further research and practice on planning for a comprehensive scheme or programme which would integrate the commercial benefit with the heritage conservation goals so that it would directly benefit the people financially. Research on how to make people participate in planning or while preparing the schemes may be of good interest. There is scope for research on promoting responsive tourism strategy and sustainable destination management planning.

10. ACKNOWLEDGEMENTS

I wish to dully acknowledge my fellow researchers of CEPT University, who has extended support during surveys, mapping and analysis of this research paper. I am also grateful to my colleague Mr. Shivendu Shekhar Singh who has helped me in finding related research work in the same field which has strengthen the background study. I am grateful to Prof. Shrwana Acharya who has always been my inspiration and has reviewed and provided critical inputs in this research paper.

11. REFERENCES


Taylor, Ken. Landscape and Memory, UNESCO.


The Impact of the Legislations Used to Regulate Spatial Planning and Land Use Management in South Africa

Nokhukanya Dlamini¹, Dr. Walter Musakwa²

¹Research Student, ²Senior Lecturer
Department of Town and Regional Planning
Faculty of Engineering and the Built Environment
University of Johannesburg, Beit Street, Doornfontein, South Africa
Email: wmusakwa@uj.ac.za, Tel:+27-11-5596318

Abstract

In most post-independence states in Africa, there is still a mixture of pre and postcolonial planning legislation. South Africa has put in place a myriad of planning legislations to make cities and towns great places to live. However, have these planning laws created great places or still perpetuated segregation, albeit of another kind? New laws such as spatial planning and land use management act have been put in place, but one wonders, is it just a repackaging of previous failed policies? This study therefore looks at the extent at which post-apartheid planning legislation have created great places in towns and cities in the Eastern Cape. Emerging findings point out that nothing much has changed, therefore what could be the way forward in creating spatially and economically integrated cities and towns.

Keywords: DFA, SPLUMA, Ordinance, Planning, Tribunals

1. INTRODUCTION

Spatial planning land use management as well as development are dynamic fields that change constantly. The challenges facing spatial planning and land use management are affecting either directly or indirectly on the feasibility of development projects. It also affects the socio-economic feasibility with specific reference to urban growth patterns, it affects the physical feasibility as it affects the legal requirement and it affects the financial feasibility due to time constraints. Cloete (1999).

The historical background of spatial planning in the South Africa is the most of the challenges facing land use management. Reference is here not only made to the Political and Physical history, but also the legislative history. Between 1910 and 1930 where British planning influence began, there was a strong provincial influence over land, together with a tendency to shape settlement pattern along ethnical and class lines. From 1930, which is Post-war reconstruction, the concept of an in wardly orientated neighborhood unit and the dominance of the motorcar. Cloete (1999:16-19)

From 1948, which is Grand apartheid era, featured the formulation and implementation of separate development of all aspects. From 1976, the Soweto uprising resulted inter alia in a rapid increase of informal settlements. From 1985, late apartheid reforms this is a stage where change was eminent due to internal and international opposition. National Development & Planning Commission (1999:45) Yogi & Aksum (2007:94) states that the urban development problems and land use management currently in most African...
cities are rooted in historic, socio economic and physical development processes intertwined with ineffective urban development policies.

A major problem facing the newly elected government in 1994 was the distortion of urban space because of apartheid planning. Various measures have been put in place to address this. These measures include planning and developmental policies, and revisions to legislation. This process has been bedevilled by old-order legislation and policies, much of it fragmented and not uniformly applicable.

The purpose of this paper is determined if Town Planning Legislations used in Spatial Planning and Land Use Management in South Africa in post 1994 have created great cities to live using Lukhanji Local Municipality, in the Eastern Cape as an example. Lastly the paper assess if the new hyped legislation (Spatial Planning and land Use Management Act) will address the challenges facing spatial planning and land use management in the municipalities.

2. HISTORICAL BACKGROUND ON SPATIAL PLANNING AND LAND USE MANAGEMENT IN SOUTH AFRICA AND, COLONISED SUB SAHARAN COUNTRIES

Conventional formal urban planning practice in (Sub-Saharan) African countries was largely of British colonial origin and much of urban planning legislation in the region derived and evolved from the succession of British Town and Country planning legislations/Acts. Earlier British colonial town planning legislations with the general objective “to control urban expansion and provide for slum clearance and renewal” (Home, 1997) were enacted in British colonies with strong settler activities and potential for inter-communal conflicts. This included South Africa in the late 1920s.

The most fundamental and critical challenge faced by urban areas in most developing countries, particularly in (Sub-Saharan) African countries is the debilitating weak institutions of urban development planning and management. Municipal authorities are usually underfunded to meet their responsibilities. The institutional base and infrastructure for effective urban planning and urban development management is still largely very weak. Urban local governments are also characterised by a weak and unviable revenue base, inadequate technical and administrative skills and limited political will and commitment on the part of the central and other higher-level governments to let the local institutions and their instruments function. (Cheema 1987:149). As a result local authorities are crippled and find it difficult to redress the imbalances and improve the quality of life of its citizens.

Planning is only as effective as the administrative system supporting it and the political philosophy, willingness and commitment of the state in which it operates allows it to be (McAuslan 1985). Most central and state governments in Africa are yet to promote institutional strengthening at the local level. The other challenge is poor governance, corruption, and waste of resources. From Nigeria, Kenya and Zaire, to several other African countries, the refrain is about how much the governing elites have taken out of the countries and invested all over the world, rather than in their own countries.

As summed up by Agbola (2005), who states that many cities in Africa are burdened by dramatic crises ranging from unemployment, environmental degradation, deficiencies in urban services and inadequate housing, deterioration of existing infrastructure, lack of access to key resources and to violence. The upshot of the foregoing challenges is that unless they are effectively addressed, the hope and quest for liveable places in urban areas will continue to be a figment of people’s imagination.

While formal plans, codes, ordinances, or such other land-use control measures may not necessarily seem the most important factors influencing land-use patterns and their growth, in the current context of massive urbanization in Sub-Saharan Africa, they are still exceedingly important. It is through them that the relevant
public authorities’ national, state, provincial, local government or planning agencies influence where and in what direction, for what and when urban growth will occur. Besides, effective land-use planning and its major land-use policy instrument, such as zoning are in essence a hazard prevention and mitigation exercise (Stren, 1992). Most African cities can therefore be likened to rat colonies from which it is not honest to expect order unless and until formal institutions of city planning and management are restored and strengthened to perform their functions of city planning and city building. This is a core challenge of these planning legislations in African countries.

Understanding the root cause of the challenges facing town planning is very important as it leads to citizens to seek desired solutions. This will assist town planners not to adopt plans that created the challenges that exist today.

3. EFFECT OF POST 1994 TOWN PLANNING LAWS IN SOUTH AFRICA

Old planning laws and the spatial legacy of apartheid as well as the high-level drive to change these in South Africa has been largely ineffective to alter land use planning and land development. Indeed the same laws that were used to implement apartheid’s grand plan of segregation and inequality are largely the same tools still being used by planners across the country to determine whether or not and on what conditions land development projects should proceed.

As highlighted above, laws designed to implement the urban plans of apartheid remain stubbornly in place. The only post-apartheid national land development law, the Development Facilitation Act, has been found to transgress the Constitutional powers of local government. With its demise, the country fell back entirely on pre-democratic planning legislation. Fundamental to effective planning law reform is a constitutional framework that clearly delineates the legislative powers to regulate planning and land use.

The planning system in South Africa, like the European models, reflects a hierarchical structure of national, provincial, and local plans. This approach centres on the notion that local policies are subordinate to provincial policies and those in turn, are subordinate to national policies. This is based on the assumption that national government is the first custodian of public interest in respect of spatial planning and land-use management.

Municipalities were instructed to establish separate African revenue accounts based on the income from fines, fees and rents exacted from 'natives' in the locations; this money was to be used for the upkeep and improvement of the locations. The critical function entrusted to the local authorities was, however, the administration of tougher Pass laws: Africans deemed surplus to the labour needs of White households, commerce and industry, or those leading an 'idle, dissolute, or disorderly life', could be deported to the reserves. In implementing the Act, local authorities were careful to consider the needs of industry. In Johannesburg, for instance, where industrialists made no bones about wanting a large pool of permanent standby labour, it was only intermittently applied until the end of the 1940s.

In 1951, in their objective to keep Black people permanently from the urban areas, the government introduced The Bantu Authorities Act, No 68 of 1951. The Bantu Authorities Act was one of the Acts that attempted to keep South African citizens apart on a racial and ethnic basis. The government introduced this Act by setting up Black ethnic governments known as “Homelands”. The government used this Act to push Black people out of urban areas to stay in these homelands. These homelands were subsequently granted independent status by the central government. Homelands were under chiefs who were subordinate to their masters in Pretoria. The Inhabitants of these homelands would lose South African citizenship and all political rights including voting. They even had to have passports to enter South Africa. The Act commenced in 17 July 1951. It was repealed by section 69 of the Black Communities Development Act, Act No 4 of 1984. With these provisions, any African unlawfully resident on White-owned land could be
evicted; and Areas in White South Africa where Blacks owned land were declared "Black spots", and the state began to implement measures to remove the owners of this land to the reserves.

The history of the development of human settlements shows what the impact was of the various pieces of legislation used in different provinces and even within a province itself, different pieces of Town Planning Legislations were applicable. For instance, the Eastern Cape was divided into three, Former Transkei, Former Ciskei, and Republic of South Africa. Therefore, three pieces of legislations were applicable and still are which are: (Transkei Townships Ordinance 33 of 1934), Land Use Regulations of 1987 and Land Use Ordinance 15 of 1985.

These different pieces of legislation were employed to fragment settlement patterns that also resulted in uniquely different settlement components with distinctive features. However, Land Use Planning Ordinance 15 of 1985 was administered carefully whilst others were left out and difficult to administer. The institutional capacity that was made available to administer the different areas where the previous Cape Provincial Administration played a strong role in determining how planning procedures and decisions would be implemented in former Republic areas.

Town Planning legislation in former White areas focused on forward planning (structure plans) and land use management (zoning schemes). In contrast, the legislation applied in Bantustans and so-called Black Areas focused on land tenure, which in most cases was not a permanent right in law (although in reality it always was).

An interesting development in the realms of planning, especially with the dawn of democracy is the shift of the leading role in planning from the technocrats to the politicians. The decision-making processes regarding planning matters are increasingly intertwined in a web between politicians and planners. As with European experience, the influence of politicians has drastically increased over the last decade or so. Plans that are not accepted by politicians are often unsuccessful.

The planning process, in general, including spatial planning, has gained another dimension in the form of the participatory approach. This is partly due to the mobilisation of environmental concerns in planning decisions. However, it has become commonplace for spatial plans to have the support of the public that it is intended for. It is generally acknowledged that public support for spatial plans has become an imperative for their success.

4. METHODOLOGY

Research Methodology can be defined as procedures used in making systematic observations or otherwise obtaining data, evidence, or information as part of a research project or study (Babbie 2010). Babbie (2010:89) suggests two approaches to data collection, namely: Quantitative and Qualitative approaches. For purpose of this study, we utilised a mixed research approach, because the study will be based on multiple realities, constructivism, and certain theory. The mixed methods were used because the study seeks to gather people’s perceptions as well as the impact of town planning legislation. It is also an evaluatory research because the study assesses the impact of planning legislations in South Africa.

Methods

Questionnaires with open and closed questions and secondary data was used in this study. Fifteen questionnaires were distributed amongst town planning consultants, general applicants (public), and town planners in local, provincial or government departments. The questionnaires consisted of (yes/no) questions, which required respondents to explain or elicit further information. The first part of the questionnaire consisted of questions regarding the old town planning legislation (Table 1).
<table>
<thead>
<tr>
<th>No</th>
<th>Statement</th>
<th>YES</th>
<th>NO</th>
<th>EXPLAIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Do you understand different town planning legislations applicable in Lukhanji Local Municipality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>The process of preparing town planning applications is transparent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>The turnaround time for determining the outcome of town planning applications is too long</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The second part of the questioner consisted of question relating to SPLUMA. (Table 2)

<table>
<thead>
<tr>
<th>No</th>
<th>Statement</th>
<th>Yes</th>
<th>No</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>SPLUMA is promising to bring positive change than existing legislations in town planning</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Do you think SPLUMA will make it more complex for the determination of town planning applications</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Planning Tribunals will do better job than current committees taking decisions on town planning matters</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>SPLUMA provides for better spatial planning than DFA</td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Statistical and thematic analyses were employed in analysing the questionnaires. Secondary data was also utilised in the study and this was utilised to garner perceptions on town-planning legislations

**APPLICABLE TOWN PLANNING LEGISLATIONS, THE CASE OF LUKHANJI LOCAL MUNICIPALITY**

Old planning laws and the spatial legacy of apartheid as well as high level drive to change those laws South Africa has been unable to effect any major changes to the legal frameworks governing land use and land development. Indeed the same laws that were used to implement apartheids grand plan of segregation and inequality remained the tools used by planners across the country to control land use planning and management.

As highlighted above, laws designed to implement the urban plans of apartheid remain stubbornly in place. The only post- apartheid national land development law, the Development Facilitation Act, has been found to transgress the Constitutional powers of local government. With its demise, the country fell back entirely
on pre-democratic planning legislation. Fundamental to effective planning law reform is a constitutional framework that clearly delineates the legislative powers to regulate planning and land use.

Like many municipalities in South Africa, in the case of Lukhanji, the history of the development of human settlements shows the impact was of the various pieces of legislation used in different provinces and even within a province itself, different pieces of Town Planning Legislations were applicable. For instance, the Eastern Cape was divided into three, Former Transkei, Former Ciskei, and Republic of South Africa. Therefore, three pieces of legislations were applicable and still exist, which are: (Transkei Townships Ordinance 33 of 1934), Land Use Regulations of 1987 and Land Use Ordinance 15 of 1985.

These various pieces of legislation were employed to create a fragmented settlement pattern that resulted in uniquely different settlement components with distinctive features. However, Land Use Planning Ordinance 15 of 1985 was administered carefully whilst others were rather left out and difficult to administer. The institutional capacity that was made available to administer the different areas where the previous Cape Provincial Administration played a strong role in determining how planning procedures and decisions would be implemented in former Republic areas. In support of the mentioned statement, is that, development applications in terms of Land Use Ordinance 15 of 1985 which is applicable in former RSA areas is simple to administer and enforce, whereas other legislations that are applicable for former Ciskei and former Transkei areas are difficult and cumbersome to administer as municipal council only recommends to provincial department

Town Planning legislation in formerly White areas focused on forward planning (structure plans) and land use management (zoning schemes) and was based on planning and managing land use. In contrast, the legislation applied in Bantustans and so-called Black Areas often muddied the waters and also dealt with land tenure, the right to use a piece of land for a specific purpose came with a right to occupy that piece of land, which in most cases was not a permanent right in law (although in reality it always was).

An interesting development in the realms of planning, especially within the context of democratic rule, has been the shift of the leading role in planning from the technocrats to the politicians. The decision-making processes regarding planning matters are increasingly intertwined between politicians and planners. As with European experience, the influence of politicians has increased over the last decade or so. Plans that are not accepted by politicians more than often produce no results, as they will not be marketed. The role of the Town planners is to advise on issues of development, but it is often evident that advice given by town planners is never taken serious. Politicians as decision makers on planning matters, often expect town planners to implement their plans regardless of the advice given by town planners, which create a conflict and contradiction to available plans aimed at correcting the spatial imbalances of the past planning and to have effective land use management system.

The planning process, in general, including spatial planning, has gained another dimension in the form of the participatory approach. This is partly due to the mobilisation of environmental concerns in planning decisions. However, it has become commonplace for spatial plans to have the support of the public that it is intended for. It is generally acknowledged that public support for spatial plans has become an imperative for their success.

**HOW APPLICABLE LEGISLATIONS IN THE CASE OF LUKHANJI**

There are different regulations governing the use of land within a municipal area. Land use management in a municipal area is regulated in terms of the Scheme, which supports the control and management of development within a municipality in a form of Provincial Ordinances and Acts, which are Land Use Planning Ordinance 15 of 1985 (LUPO) for former Cape Province areas/ former Republic of South Africa,
Townships/Transkei Ordinance 33 of 1934 for urban areas of former Transkei and Land Use Regulations Act 15 of 1987 for the former Ciskei.

Schemes comprise of Scheme Regulations, Zoning Plans and a Zoning Register. The Scheme Regulations make provision for various zonings, each containing permitted use rights (as primary rights and by way of council’s special consent) and development restrictions in terms of building height, coverage, building lines etc.

The preparation of the scheme follows procedures set out in the Ordinances. Municipal officials are required to administer land use and development control and keep scheme records up to date. Any proposed amendment to the scheme need to take the form of a formal application to the municipality, which is then processed and commented on by technical staff within the municipality. A final decision is made by the Council or if delegated powers are not with the municipality, Council makes recommendations to the respective Boards at provincial level. The final approval in such instances is issued by the MEC.

Municipal officials are obliged to ensure that land development is as permitted in terms of the scheme and must monitor compliance with the scheme. Any non-conforming land uses must be dealt with in line with stipulations of applicable regulations. The Scheme links to the SDF and IDP as it cannot be amended in a manner that is contrary to the proposals set out in the SDF, unless a strong argument in support of such deviation is presented and accepted by Council.

**LAND USE PLANNING ORDINANCE 15 OF 1985**

Land Use Planning Ordinance 15 of 1985 (LUPO), applicable in former Cape Province areas Applications are submitted to local authorities, advertised for public comment and circulated to various municipal sector departments for technical comments, before a decision is made. Applications in terms of LUPO can be approved by the municipal council.

**TOWNSHIPS ORDINANCE 33 OF 1934**

Townships Ordinance 33 of 1934 for urban areas of former Transkei Land Use Regulations Applications are submitted to local authorities, advertised for public comment and circulated to various municipal sector departments for technical comments, before a decision is made. Municipal council only make recommendations to the Province, an application must be approved at a Provincial level.

**ACT 15 OF 1987 FOR THE FORMER CISKEI**

Applications are submitted to local authorities, advertised for public comment, and circulated to various municipal sector departments for technical comments, before a decision is made. Municipality council only make recommendations to the Province, an application must be approved at a Provincial Level.

**POST 1994 PLANNING LEGISLATION - DEVELOPMENT FACILITATION ACT**

The imbalances left by the previous governance system of separate development are still visible, despite the progress made by the government. The DFA became necessary because the process of approving land use applications, under the control of municipal authorities across all property types, was painfully slow. Despite the promulgation of the DFA, housing delivery has not caught up with the growing population numbers of the targeted population sector. In the meantime, however commercial and high value residential developments accelerated at an unprecedented pace in one of the largest property booms in South Africa, to the dissatisfaction of the municipal managers.
When the DFA was enacted, the Ordinances were not repealed. The drafters at the time hoped that for the sake of meeting the promises made to the electorate, the two pieces would co-exist harmoniously side by side. The other reason for not repealing the Ordinance was that the target areas where the accelerated development was required did not have town-planning schemes, which the established suburbs had. On the other hand, DFA had time frames were incorporated in its provisions within which the municipalities were forced to have reached certain milestones in the application assessment process.

The DFA however ended up being used by commercial and luxury residential developers to circumvent the townships ordinance to get approval for their developments. Clearly, the target population could not benefit from the latter’s developments. Even worse, these developments were perceived to be creating urban sprawl and bulk utility services were being rapidly depleted, to the detriment of the target communities. Such a state of affairs is not how the politicians wanted things to go, so the DFA had to go.

Never the less the DFA was a very effective piece of legislation. It has helped to facilitate one of the strongest property booms in South Africa. It did a good job of exposing the weaknesses inherent in the Ordinance.

In June 2010, the Constitutional Court declared chapters 5 and 6 of the Development Facilitation Act (DFA) that allowed the provincial sphere of government to set up development planning tribunals to decide on municipal planning matters unconstitutional. A number of municipalities and provinces relied on the DFA for making decisions regarding land use. The Constitutional Court gave government until 17 June 2012 to rectify the unconstitutional parts of the DFA or come up with new legislation that will be constitutionally sound.

INTRODUCTION OF SPATIAL PLANNING AND LAND USE MANAGEMENT ACT

The Constitutional judgement against chapter 5 and 6 of DFA imposed a new “worldview” on the planning system in South Africa that breaks with past norms and has required some complex processes to be developed in SPLUMA to deal with the issue of constitutionality. There is an argument to be made, that the Court took an overly deterministic view of the matter without regard to the subtleties in a co-operative governance approach to spatial planning.

Before 1994, the planning regulatory framework was designed to serve communities based on racial segregation as part of the grand scheme of apartheid. Due to the incoherent and inefficient planning system, government identified the need for new planning legislation that would address the apartheid spatial planning legacy and deal with:

- Multiple laws and multiple institutions regulating development planning
- Rationalization of fragmented planning laws that applied to certain areas based on the old boundaries of the then four (4) provincial administrations, homelands, and Self-Governing Territories (SGT);
- The repeal of the Development Facilitation Act, 1995 (Act No. 67 of 1995) as it was promulgated as an interim measure to deal with the apartheid planning legacy.

A process to put new legislation in place was therefore initiated and saw the introduction of the Green paper (1999) and White Paper (2001) on Spatial Planning and Land Use Management. The current Bill is therefore
a product of a process that was initiated in 1999 and given impetus as a result of the June 2010 Constitutional Court ruling on the Development Facilitation Act.

Due to the court judgement against chapters of DFA, Government was granted twenty-four months to come up with a new legislation to repeal DFA. The Department of Rural Development and Land Reform then initiated a process of developing new legislation that will repeal the DFA and other old order legislation and subsequently published the first draft of the Spatial Planning and Land Use Management Bill (SPLUMA) on 6 May 2011. The Department of Rural Development and Land Reform published the revised version of the Spatial Planning and Land Use Management Bill and called for further comments on the revised Bill. President Jacob Zuma signed the Bill into an Act on August 2013.

WHAT IS ENVISAGED BY SPLUMA

SPLUMA attempts to follow the requirements of the Constitutional Court ruling by locating the full responsibility for spatial planning and land use management at the municipal level, which is the level that has least capacity to fulfil this role in SA at present. As such, it brings into being complex procedures and arrangements that may well take considerable time to be fully understood and applied correctly.

It brings into being new institutional arrangements that will prove challenging to establish and to administer and run correctly within the ambit of the law. However, if (once?) land use regulators are up-skilled and apply the SPLUMA approach rigorously, the potential exists to streamline processes.

INCLUSION OF RURAL AREAS IN LAND USE MANAGEMENT PROCESS

Informal land use management takes place on communally owned land, which is governed by the local chief or traditional leaders. They determine what land can be used for and who may use the land. Communal land lacks cadastral definitions and land use rights are often linked to individuals. Where land is defined, it is usually an informal sketch plan. Use of land is determined through verbal agreements between chiefs or traditional leaders and community members. There might be cases where this is confirmed in writing (Umhlaba 2013:21).

The system of Permission to Occupy (PTO’s) which were issued by local Magistrates in the past on communal land has fallen away and in many cases, PTO’s issued in the past have been destroyed or not updated. This system did allow for some measure of control and record keeping.

In terms of SPLUMA, it is said that rural town planning schemes will be developed to manage land development in rural areas.

Rural areas should not be seen as unique or exempt from the overall society. They are part of the continuum of land use planning and management as they have unique conditions and socio-cultural dimensions, and consequently form part of the land resources of SA. As much as land owners/land users in urban areas have limits to the rights of use regardless of their ownership status, so too should rural settlements be administered in a way to ensure that wise land use prevails within the parameters of their unique situations.

POTENTIAL CHAOS

It is evident that rural leaders have not been properly consulted about SPLUMA. Rural areas are used to developing their areas without consulting the municipality, in a form of submitting a building plan or development application. If a person from rural area wants to operate business, they do not submit any application to seek permission from the municipality.
Constitutional Court judgement dealing with the DFA and with a major property development in the Western Cape called Lagoon Bay, have confirmed the proper interpretation of the Constitution which identifies the local government level as the principle sphere of government responsible for land-use planning. Only in that way will we all be able to sit in the shade.

5. DISCUSSION

The findings revealed that a little is known by ordinary people who are applicants who don’t have any town planning knowledge and also understand the need for them to apply for permission through land use applications to municipalities in order to comply with legislations governing town planning. The origins of different legislations in one municipal area as the case of the municipalities in South Africa remains a huge confusion and has negatively affected the previously disadvantaged spatially and socio-economically. Consequently there is legislation and policy confusion.

Concerning DFA, the study reveals that the DFA was never intended to be definitive legislation and was designed to be an interim tool to enable planners and planning authorities to deal with situations requiring a more modern, normative (principle-led) approach than the existing “old order” laws. The constitutional court judgement came as a surprise as DFA was doing very well in speeding up development. An overwhelming majority of 75% percent of the respondents have a clear understanding of the existing and old legislation before SPLUMA. It is argued that process before SPLUMA are well defined; however, challenges relating to prolonged turnaround times (18 months) can hinder development. Moreover, some applications find the town-planning scheme restrictive in terms of promoting developments. SPLUMA does away with conflicting provisions regarding LDOs and dovetails with the Municipal Systems Act provisions for SDFs and adds detail to how the overall planning system is envisaged to function.

The complexities of establishing and administering Tribunals under SPLUMA will prove onerous. Seventy percent of the respondents agree that SPLUMA is a well thought out legislation however, 60% agree that it will be very difficult to implement. There are teething problems to be expected as the mode of operation is outside most Local Municipalities and District Municipalities sphere of experience. Land use regulators will require lots of training and logistical support to get things right. Moreover, coordination of SPLUMA will most likely prove cumbersome as various government departments currently prepare their own land use plans. As a result coordination all these spatial plans is not well envisaged with SPLUMA. SPLUMA is a well thought out document however, it does not spell out how the challenges of spatial coordination are to be solved. This has been the case with most South African policies and laws. Perhaps it is also a key factor in why most legislation has not fared well in creating great places to live and work in. Moreover, it appears that spatial arrangements under apartheid continue to persist as inequality and poverty continues to rise. Therefore, one raise the questions are these new laws and legislation such as SPLUMA “old wine in a new bottle”.

Few municipalities have the necessary skills and experience to implement SPLUMA and other related provincial legislation. Therefore, provincial governments, local governments, the private sector, and civil society will all need to work together if SPLUMA’s noble aims are to be achieved.

Most people welcome inclusion of rural areas by SPLUMA in land use management system though conflicts might arise as there is no clear indication of consulting traditional authorities regarding inclusion of rural areas.

6. CONCLUDING REMARKS
Due to the complex nature of the cadastre and property rights, colonial land administration laws and regulations remain entrenched in many countries still to this day in Africa (United Nations 1997). In a number of countries, such as Uganda, Ghana, Namibia, Mozambique and South Africa, new land registration laws have been or are being introduced and discussed. These laws are an attempt to move away from colonial forms of land administration on the one hand, but also to develop land administration systems and laws that more closely reflect the social land tenures on the ground (customary and/or informal).

In a case of South Africa, DFA played a huge role trying to turn around the situation inherited from apartheid spatial planning. Constitutional court judgment against DFA chapter 5 and 6 paralyzed effectiveness of DFA. This came as shock and concern for development, but also assisted in pushing government to promulgate Land Use Management Bill into law, which will repeal DFA and all planning ordinances that were inherited from apartheid planning. It will only be good for South Africa to have one legislation governing spatial planning and land use management. The implementation of SPLUMA is likely to prove challenging and may well be challenged legally once the full implications of what it provides for are grasped.

7. REFERENCES


Harrison and Todes, “The Use of Spatial Frameworks in Regional Development in South Africa” Regional Studies, Vol 35.1 (2001)


Umhlaba Consulting Group, 2013. Land and Settlement Development.

United Nations: 1997
Africa: the Continent as a “Great Place”
Public Space Making Opportunities

Dumisani Mhlaba

Director
Dumisani Mhlaba Architects (DMA)
66 Baines Road, Glenmore, Durban, 4041, South Africa
Tel: +27 31 205 3567, Fax: 086 697 4243
Email: dumisani.mhlaba@dmarchitects.co.za

Abstract
The primary argument of this paper is based on the fact that the earth and the richness of its nature provides an environment for human existence and experience. The planning and accessorization of spaces for human habitation and activity owe to acknowledge the elements of nature that complete human experience.

The approach to this discussion does not, however, ignore the significance of technical infrastructure that planning has to provide for human habitation, lack of which, has negatively affected human experience of what was meant to be great places. This discussion goes further than the provision of infrastructure, and emphasizes on spatial quality that can be drawn from elements of nature to create a desired experience, from the smallest to the largest space. Drawing from various international pioneers and authors of theories and concepts of ‘space’, it arises that the geographical and sociological landscape of the African continent and South Africa in particular, rural and urban, provides an opportunity for planners and designers to develop environments of great experience for human habitation, commercial activities and tourist attraction. International examples of successful attempts are also drawn in to demonstrate the argument.

Acknowledging the richness of ancient cities, this paper presents an analysis of particular relevant aspects of a selection of historical cities of the world. Shortcomings of the planning and architecture of modern cities, particularly in South Africa, are also acknowledged in order to successfully identify opportunities that have shown to exist for improvements of existing urban environments and further developments of new cities for human social comfort. These observations have revealed that it will only take a change of values for modern planners and architects to achieve the timeless spatial quality that was achieved by the ancient world.

Keywords: Place, Space, planning, nature, existence, experience

1. INTRODUCTION

The pressures of fast developments in the evolution of technology, competitions in design styles and the corporate pressures that are attributable to the industrial age have tended to compromise the fundamental planning and design values that were observed by preceding generations in the creation of environments that embrace human existence. Spatial quality for human experience has yielded to the pressure of mass production and display of new technology for aesthetics of forms and facades.

This paper draws attention to proven successful historical attitudes toward the planning of both indoor and outdoor environments with spatial qualities that have embraced human activities with great experiences. The paper argues that in order to achieve a great place, one needs to design for people rather
than mere demonstration of artistic skills in the visual expression of buildings, and apply elements and principles that matter to those people beyond economic factors.

The purpose of this paper is to share awareness of factors that have influenced the social performance of South African cities and to engage with fellow space-making experts towards improvements on identifiable shortcomings of our modern urban environments. It is hoped that this discussion will contribute positively to the efforts of the built environment fraternity in the planning, design and development of environments that are enriched with qualities that will embrace human existence in them.

A selection of international examples, including Africa, is used to demonstrate the concerns of this paper. The case studies used are a product of a few years of focused international travels, in a form of guided tours, with particular attention those western European countries that have a relatively long history of development from the medieval days.

Data collection has involved participatory observation with tour guides and further independent explorations of those selected cities. The photographs used in this paper were taken personally by the author except a few that are acknowledged herein. The explorations also involved a collection of relevant literature materials along the tour and online readings.

For the purpose of this presentation, this paper does not intend to elaborate on the detailed historical background and factors that have influenced the planning and performance of the selected cities, which would result in an extended volume of the document with information that, though critical and relevant, would stretch beyond the parameters of the subject of this presentation.

2. MAKING A GREAT PLACE

Williams (1999) makes mention of the psycho-social aspect of human response to environmental change. When nature or human action causes change to the physical environment, the people of such environment are faced with a process of psychological adaptation to the environmental demand for the transition. The direction of the psycho-social transition is, most often, not guaranteed and may make or break the resultant social behaviour.

In his discussion of the Place theory, Trancik (1996) cautions that, for a successful creation of a place with its meaningful distinct character, “...the role of the urban designer, then, is not merely to manipulate form to make space but to create place through a synthesis of the components of the total environment... ”. He adds: “Let no one pretend that quality of place will arise from zoning or master planning by themselves”. Rather, it must be an experiential environment that embraces human existence holistically.

Norberg-Schultz (1971) acknowledges the ideal existential space as one that embraces sociology, psychology and semiotics that comprises the totality of its quality and performance. Reluctance to acknowledge these human elements have often resulted in physical environments that either reject human existence or influence social behaviour negatively.

In their overall analysis of Norberg-Schultz’s works, Habib and Sahhaf (2012) highlight and appreciate his notion of basic dimensions that make up existential space, that is, “the technical structure, environment, context, scale and ornament”. He defines it as a qualitative space, an environment that presents “genius loci”, that is, “the spirit of place”. In his discussion of The Image of the Environment, Lynch (1960) acknowledges the theory of existential space where he introduces the aspects of context and historical heritage: “Nothing is experienced by itself, but always in relation to its surroundings, the sequences of events leading up to it, the memory of past experiences”. The interpretation or perception
of the image of a particular environment is, therefore unique to its local physical and social surroundings, thus creating the spirit of Place (genius loci).

For the demonstration of the practicality of the above arguments summed up, three successful basic elements of space-makers are used herein, i.e. water, sky and landscape (or garden). Over centuries of history nature has been largely taken advantage of as timeless elements for spatial experience in the creation of open spaces for various human activities. These three elements were used to celebrate a wide range of human activities, thereby reinforcing social cohesion in the urban settings.

3. PLACE IN SPACE

A space, to begin with, is an occupiable portion of or an entire environment with or without definitions, whether occupied or not. The Concise Oxford English Dictionary (2011) defines space as a “Continuous area or expanse which is free or unoccupied”. That is, a geographical extent of an environment not assigned to specific occupancy or habitation.

On the other hand, place involves particularity in a given space. That is, a specific occupation or habitation of a portion or entire location. The Concise Oxford English Dictionary (2011) defines place as “a particular position or point in space; a portion of space available or designated for someone”. Agnew (2011) excellently summarizes the distinction between the two: “Place is specific and location (space) is general”.

The above definitions suggest that the existence of space has, by itself, nothing to do with the person or object that may occupy it. That is, a space can only become a place when it assumes characteristics, be they cultural, emotional, spiritual, biological or psychological, that deem it fit to embrace the social characteristics of a person. It also becomes a place when it has characteristics that are suitable for the physical shape or chemical formation of an object that occupies it. What makes a place, therefore, is not the existence of the physical confines of space but it is what makes up those confines of the space. It is the reason for the existence of the space that will influence its character and role as a place.

4. PLACE IN PUBLIC SPACES IN HISTORICAL CITIES

Among the historical cities of the world, the ancient Roman model of urban planning has typified a significant number of European cities that were formally colonized or influenced by Rome. Below is a selection of examples of great public spaces that demonstrate successful acknowledgement of the above mentioned elements of nature.

The narrow pathways that radiate from the squares and courtyards of every city block and opening into the next have created a spread of public spaces that have made those towns places of great experiences both to tourists and local people.

4.1. St Marks Square, Venice, Italy:

St Marks Square is the greatest landmark of Venice characteristic of the Roman planning model. The square is used for civic, commercial and entertainment activities.

The uniqueness of St Marks Square is in the framing of both the Italian sky above it
and the Adriatic sea to its eastern side. Pic.1 shows a civic activity within the square and on the sea.

4.2. **Roman Amphitheatre:**

eg Merida, Spain / Verona N. Italy / Colesium, Rome, S Italy (Sky)

While Roman amphitheatres were meant for outdoor activities, the spaces, enclosed with high walls, framed the sky above as the roof.

4.3. **Roman Ancient City:**

Cáceres, Spain (general layout)

The well preserved ancient Roman town, Cáceres, in Spain remains as a magnificent display of the predominant use of the sky, framed as the roofs above pockets of squares, courtyards and narrow pathways from one open space to another.
4.4. Medieval Cathedrals

St Antonio Cathedral, Padova, North Italy

As a spiritual environment the creation of pockets of courtyards provided secluded four-walled spaces that only opened to the sky as places for meditation and connection with the Most High. It was believed a man-made roof would have broken such spiritual connection.

Turku Cathedral, Finland

It is the most important religious building in Finland: the Mother Church of the Evangelical Lutheran Church of Finland. It was built as the seat of the Archbishop of Finland. For its status of national significance, the physical stature of its spiritual authority was placed on a central hillock and pinned with a tower that penetrated the sky as a symbol of reaching out to the Most High. View to the front façade was cleared for the intended spiritual experience from distant approach.

5. USES OF PUBLIC SQUARES/OPEN SPACES IN HISTORICAL CITIES

Food Courts
As shown in the ranges of pictures below, some of the public open spaces that make up the cities are used as Food Courts which are usually small in scale. Their small sizes are so enjoyable for the intimacy of the spaces and their effective definitions of their edges as they frame the sky (Fig.8).

Pic.9 shows a popular square in front of a hotel, Plaza de Espana in Merida, Spain. The square is active with restaurants operating round the clock. The square houses public entertainment activities.

**Statues/Monuments and Cathedrals**

Fig.10, Fig.11 and Fig.12 are large public open square within the cities of Padova in North Italy, Barcelona in Spain and Seville in Spain respectively. These are typical squares that are meant to celebrate the religious authority of cathedrals, monuments and statues of famous figures. These squares are also edged with restaurants and related retail activities. The squares shown in Fig.10 and Fig.11 are designed as traffic circles to allow vehicles around them to experience the gardens with grand statues.

The informally shaped square in Pic.12 is a celebration of a statue of a famous poet. The statue is placed in a grand position with only paved surfaces to be experienced.
predominantly by pedestrians at close range. The vast open space is designed to house outdoor public entertainment activities. Spanish squares are popular for entertainment with traditional music as experts in guitars.

**Gardens with water features in traffic circles**

The two squares in Fig.13 and Fig.14, in Portugal and Spain respectively, show traffic circles around small gardens with calming fountains, an experience dedicated to persons in vehicles. The square in Fig.13 is enclosed with tall buildings, thereby expressing the definition of the sky frame edges. The fountain is experienced together with the framed sky as a roof above it.

**Open Market places**

Verona in North Italy, is one of the cities with an urban character that is highly perforated with open spaces in its layout. Open markets are characteristic of the majority of squares that make up Verona’s character. As may be noticed in the above pictures, the squares are edged with restaurants and related retail shops at ground level of the buildings that enclose them, similar to all other open spaces that make up other cities.
**Car Parks**

The street shortly from the fountain shown in Fig. 13 above opens to the large square shown in Fig. 17 which dedicated vehicles as an open public car parking square.

A notable feature that is common to all the public open spaces is the spread of restaurants and related retail shops along the edges. The pleasure of every pocket of open space is marked with a notable calm restaurant activities, an element that has contributed to the economic input to tourism in those cities.

### 6. MODERN GREAT PLACES

While the loss of acknowledgement and celebration of the primary natural elements mentioned earlier is largely attributed to the industrial age, a handful number of modern architects and planners demonstrated their consciousness of the challenge in their projects and writings, ie Frank Lloyd Wright, Richard Meier, Kevin Lynch, Christian Norberg-Schultz among the renowned few.

Wright best demonstrated his theory of organic architecture in the synthesis of the space with its form and its natural environment in the design of his Falling Waters building. Wright regards such buildings “…ornamental…” (Pfeiffer, 2008) when viewed in the context of their surrounding natural environments. A building, therefore, has to be designed not only to meet its functional requirements but as an ornament in its context creating a pleasurable place.

Richard Meier adopted the practice of organic architecture in all his buildings. He strongly believed in the influence of nature such that his typical buildings are white, to be read effectively within a sky or rich vegetation: “White is the most wonderful color because within it you can see all the colors of the rainbow. The whiteness of white is never just white; it is almost always transformed by light and that which is changing: the sky, the clouds, the sun and the moon.” (Meier, 2001).
The spiritual authority of a worship place is effectively expressed in Alvar Aalto’s buildings. The Vuoksenniska Church in Finland (1958) is one example of such practice. It appears Aalto had a strong influence on Meier’s philosophy on color.

Alvaro Siza [Fig.22-24] and Charles Correa [Fig.25] are architects that have demonstrated organic architecture by creation of great spaces within their buildings through strategic framed views to the sky, garden or river/sea in order to connect the internal spatial experience with the surrounding context.
Charles Correa adopted the local traditional architecture and implemented the culture of framing the natural environment surrounding the centre as a strong character of the building aiming to allow the therapeutic effect of the natural elements to penetrate the environment of the sickly. Fig.25 shows one of his stylistic perforations through the wall of the Auditorium framing a magnificent view to the Tagus River close by and the hillocks across.

![Image](image1.jpg)

**Fig.25. Champalimaud Centre for the Unknown (Research Centre), Lisbon, Portugal (2008-2010)**

The majestic power of the Vasco da Gama monument built in 1958-1960 [13], in Lisbon under architect António Pardal Monteiro, could only be effective when viewed soaring into the skies of Lisbon.

![Image](image2.jpg)

**Fig.26. Vasco da Gama/Discoveries Monument, Lisbon**
Its religious and political commanding stature would also not have been that successful without the Tagus River on its background, viewed from the vast open square around it. The monument, thus, connects the river with the sky in a manner that creates a calm social environment, attracting crowds to the vast open space around its foot.

7. AFRICA: THE CONTINENT AS A “GREAT PLACE”

The continent of Africa, in its vastness and diversity within, comes along with a history of surviving external forces that meant, and still means, to extinguish its great pre-slave trade and pre-colonial history in various ways. One of the attempts is well dissected by Rodney in his detailed record “How Europe Underdeveloped Africa” (1972), a point in history one would regard as an era of ‘The Great Spin’ or ‘The Great Hijack’ in Africa. This phenomenon cannot be discussed in detail within the limits of this paper. Another external attempt erase the greatness of African history is unpacked by Derricourt in his book “Inventing Africa; History, Archaeology and Ideas” (2011). In his argument, Derricourt acknowledges works of world renowned authors of African history and comments on the lense through which they appear to be reading the history of the continent, particularly as external analysts, where their works reveal subtle but major ideological trajectories.

It is worth acknowledging that one of the effects of the great hijack and spin was loss or blurred view, by Africans at all levels, to themselves and to the greatness of their continent. This generation is now faced with the long phase of reorientation to the African continent as a great place.

It is critical to note that formal modern colonial cities in Africa, were planned predominantly as economic production machines. They have been seen as places of work, not for pleasurable experiences, hence one hardly finds public spaces that were consciously planned with intentions to celebrate or acknowledge some river or sea, park, mountain, horizon, sky, heritage, etc for the pleasure of the people that comprise them. Instead, a typical African town is characterized by pedestrian work-rush and traffic wrestles with commuter mini-bus taxis which contribute to stress and crime, relative to the calm environments that one finds in most of the ancient cities such as those of western Europe, including the colonists home cities themselves.

South Africa is one of the classical examples of countries on the African continent where the richness of the natural environments that exist in the country has been ideologically seen by the colonist through the lens of race, more so upon the establishment of the Apartheid system of the South African government (Government Communications, 2014). In the coastal towns, for instance, an experience of being able to view the sea, let alone touching it, was so highly valued that it could only be associated with race and class. Such a value had a strong influence on their town planning approach at any cost. Such mentality existed long enough to be embedded into the cultures of the various races that live in the country. Township and rural indigenous people, for instance, developed acceptance and adaptation to their forced living environments away from the pleasurable natural elements which were regarded as race privileges. The town planning of townships allowed no parks, public swimming facilities. Individual sites did not allow space for even a pool, let alone affording one. Upon passing of generations, adaptation to such living conditions has transformed the cultures of the people. Viewed through the lens...
of the phenomenologist, the resultant social product tends to define the people as normal, and one may not easily relate it to history and the extent of the damage.

8. TYPICAL AFRICAN SPATIAL PLANNING VALUES

The social organization of a typical African household and society is strongly influenced by nature as a connection with divine powers. Life is perceived in the context of the completeness of the universe, hence the attachment of most of the indigenous African groups to a circle in their spatial planning. Humans, as natural beings, are regarded as part of the harmonious completeness of nature. A typical African family is culturally circular.

Yavo (2013) records typical spatial order of the indigenous Batammariba traditional house in Togo and Benin, West Africa, which is depicted in a circular urban layout. The interior layout of individual rooms is also circular. The household complex is walled into an internalized courtyard that does not only provide security, but opens to the sky to restrict connections with the external world only to vertical connection with the universe.
The same values are reflected in the traditional KhoiSan urban layout of a household complex in Southern Africa. Fig. shows a traditional Khoi urban settlement layout that attracted the interest of the Nguni people who later settled with them in southern Africa and adopted the layout as the most popular planning model as its formal nature proved to be adaptable to their social organization cultures. The influences of the KhoiSan people effectively reflected in almost all aspects of the Bantu people, ie cultures, languages, etc. Fig.28 and Fig.29 show a typical Khoi homestead layout and a Nguni one of the same model respectively.
However, research has shown that the Nguni layout was not limited to the circular model. They still maintained their flexibility in their use of other layout patterns such as the organic and rectilinear models.

Fig. 28. Typical Khoi homestead (Frescura, 1985)  
Fig. 29. Typical Nguni homestead (Mhlaba, 2009)

9. African Modern Great Places

However, the few successful attempts in South Africa include The Winkler Hotel in White River, Mpumalanga by David Bryant in 1963. Fig. 30 shows the central courtyard of the hotel with a garden and connecting to the sky through a patterned spire frame. The courtyard creates a pleasurable existential space through all times of the day. The architect’s concept was successful in the adoption of the indigenous Nguni architecture such as the traditional spiderweb roof frame, the creative merging of the circular form with the rest of the building and the charcoal colour of a traditional thatch by using modern roof slates.

Fig. 30. The Winkler Hotel, White River (1963)

The timeless global influence of the ancient Roman amphitheater has, over years, been noticeable in the designs of sports stadiums internationally. The design of the five newly built South African soccer stadiums in 2006-2009 for the 2010 Soccer World cup was the culmination of the development of such a concept to a masterpiece demonstration of organic architecture. An outstanding character of these new stadiums is the framing of the skies above, a characteristic that reconnects contemporary modern architecture to the timeless functional qualities of the historical cities discussed earlier in this paper.
Moses Mabhida Stadium in Durban (Fig. 31), to mention one, has outstood in the success of drawing in the experience of its external environmental elements such as the framed view to the magnificent African sky above from within and the grand panoramic views to the Indian ocean to the east and to the rest of the city through the introduction of the skycar up the 105m high arch. The arch is, in turn, used for further fun experience with the bungee jump ‘big swing’ activity in the sky-framed void. On the south, the body of the stadium also has a strategically positioned opening directing an inescapable framed view to a specific portion of the city.

Beyond the creative artistic design concept of the stadium and all the entertainment activities, enhanced with food courts and other facilities, is the experience of the fundamental elements of nature that were skillfully drawn in from without the building itself, a timeless spatial planning principle that was proven in the medieval days without fail. Moses Mabhida stadium has, since its opening, been one of the greatest man-made places in the world.
9. THOU SHALL NOT

Fig.33 shows an urban layout of the Chipperfield City of Justice designed by a British architect, David Chipperfield, completed in 2009. The urban layout includes a well placed courtyard space covered with an evergreen canopy of trees at human level as seen in Fig.32. The social performance of the complex is introverted, completely different from the culture of urban planning in the entire Spain, where the courtyards are traditionally edged with restaurants and related facilities which ensure that the courtyards are always occupied.

![Fig.33. The Chipperfield City of Justice, Urban layout](image)

10. SUMMARY OF FINDINGS

The above study reveals that cities that developed primarily as places for human habitation by the people themselves are characterized by the spaces that they create for themselves, spaces that embrace their cultural values. Those are spaces that allow inhabitants to be socially productive and, inherently, economically productive. The urban planning performance of the Chipperfield City of Justice in Barcelona clearly demonstrates the cultural distance between the British architect and the Spanish community that he was designing for, in that, frontages of every Spanish building at ground level is designed to be social, thus attracting social interaction through restaurants and related retail activities. The justice complex is successful in its internal function but extremely hostile to the surrounding outside public. As seen in Fig.32 and Fig.33, the courtyard space created is well covered with a canopy of evergreen trees as a social space while the surrounding building frontages do not create that sense of place in such spaces. The development is untypical of the rest of Spanish and dared not to embrace the cultural urban character of the city surrounding it. This example further demonstrates that the planning of the colonial modern cities in Africa by planners and architects that do not share in the cultural values of the local communities was influenced primarily by cultural ignorance and, hence, reluctance to acknowledge local value systems.
It was also notable in the observations that the various forms of pockets of public open spaces that spread throughout these cities are all edged with eating activities, some fully turned into food courts, enjoyed both by locals and tourists.

11. CONCLUSION: PUBLIC SPACE MAKING OPPORTUNITIES IN AFRICA

“A harsh way to deny an identity is to deny history. We have seen how the deep and complex history of Africa has been denied,...” Derricourt (2011). It was established earlier in this paper that the historical cities that are founded on ancient, at least, a medieval social background have benefitted their modern cities with socio-economic success. As Derricourt rightly puts it, Africa has a remarkably great history that has shaped the cultures of her societies. Unfortunately modern developments in African cities have always been founded on colonial agendas, not on the great historical foundations of their indigens, a proven approach that has shaped the history of the ancient European cities down to their successors. Research has revealed that the beginnings of an indigenous African town, much like any successful indigenous town that made the successful cities of the developed countries in the world, is founded on habitation, social cohesion and organization, security and to share infrastructure. It is therefore, in such environment where trade develops within and further radiates outward. It is such a foundation that the colonial African modern cities have skipped, and suffer the psychological disorientation of their indigenous majority.

If Williams (1999) is regarded as sensible in his argument about the psycho-social aspect of human response to physical environment, it will then make sense to connect the nature of environments in the current cities of South Africa with the prevailing stress related illnesses and the relatively odd social behaviors associated with the battles for urban survival; as is the case in all cities in the world whose space-making principles are primarily economy driven.

As the most historically impaired continent in terms of development, Africa is in the phase of a developmental catch up in the expansion of existing cities, creation of new towns, transformation of apartheid townships (in the case of South Africa) and infrastructural emancipation of traditional rural habitats. All these environments are naturally enriched with such primary elements of nature as the great skies of all seasons, ocean views, splendid rivers and dams, and rich natural landscapes, all of which offer timeless human experience with a sense of place in every space created for human use.

Successful designers of experiential human spaces have been characterized by simplicity strengthened by the richness of nature. Like the urban layout of medieval towns, the secret of organic architecture is that it completes a sense of place within by drawing in a pleasurable experience of the environmental elements from without.

One can imagine a spread of open squares making up new developments of African urban environments and the foreseeable rise in the food industry with the influx of tourists, both local and international. That is a secret that has enriched those cities and towns observed in the study.

The failure of the colonial modern cities in South Africa is evidenced by the migration of formal retail and entertainment business activities to the new concept of malls in the outskirts. The malls are gradually turning city centres into informal business places. Until proper reversal mechanisms are implemented the cities are foreseeably moving to an age where they will be world heritage sites as monuments of colonial or apartheid cities. Maybe such a move has to be embrace as a landmark of African modern history.
References


Making Great Places in Slums/ Informal Settlements

Reabetsoe Mpe¹, Aurobindo Ogra²

¹Research Student, ²Lecturer
Department of Town and Regional Planning
Faculty of Engineering and the Built Environment
University of Johannesburg, Beit Street, Doornfontein-2028
Johannesburg, South Africa
Tel.: +27-11-559613, Fax: +27-11-5596630
¹Email: Reabetsoe.mpe@gmail.com ²Email: aogra@uj.ac.za

Abstract

According to UN-Habitat (2007) “a slum is a heavily populated urban informal settlement characterized by substandard housing and squalor”. The word slum is generally used to describe low-income settlements with deprived conditions. (UN-Habitat, 2006). There is no universally agreed definition of the word slum. As conditions differ from country to country, different scholars from various countries define the term “slum” differently. Definitions mainly include: illegal, poorly-constructed settlements without basic services, even when some of them are relatively more different and have proper structures? An informal settlement can be defined as stated by Huchzermeyer and Karam (2006) as those settlements that were not planned by nor have formal permission to exist from government. Srinivas (1991) defines informal settlement/ slums as an area where the urban poor resides and usually have no access to tenure rights and are forced to ‘squat’ on vacant land either private or public. While slums/ informal settlements differ in size and other characteristics in different counties, but what most slums/informal settlements share in common are the lack of reliable basic services such as the supply of clean water, electricity, timely law enforcement and proper services. (UN-Habitat 2007).

Place making is a described as an approach that is used to inspire and encourage communities to create their own space/places. Place making is how we collectively shape our public realm to maximize shared value (Project for public spaces, 2009). The focus on place making was intended to remind planners of the human aspect of city-building and the ultimate goal is to create places that people use, that inspire social interaction and promote community stewardship (Urban Strategy Inc., 2008). This paper highlights critical determinants of place making in slums/informal settlements. In the context of slums/ informal settlements, firstly it covers what great places are and what constitutes as a great place. Secondly it covers the characteristics of a great place/ place making and how we can upgrade slums/ informal settlements in to great places. Lastly what is the perception of communities of great places and what they think is needed to make their settlement a “great place”. The paper is based on a research study of Kaya Sands slums/ informal settlements of Midrand, South Africa.

Keywords: Slums, Informal Settlements, Community Development, Place Making, Human Settlements, Urban Transformation

1. INTRODUCTION

Rapid population growth and urbanisation processes taking place in most developing countries throughout the world have resulted in an increase of pressure on public services and changes to spatial composition that governments in the Global South are unable to keep pace with the growing demand and scarcity of
As a result of urbanisation and the fluctuated increase in population and scarce resources over the past decade many citizens are now living in depreciated poorly constructed settlements. According to Project for public spaces (2009) place making can be used to improve all types of spaces, where people gather in the community such as parks, streets, sidewalks, businesses and other public spaces as it usually encourages greater interaction between the community members and promotes a more social and economic environment in communities. In South Africa the concept of place making is yet to be adopted or incorporated in the context of slums/informal settlements plans and/or upgradation techniques. Ultimately Place Making is not just an act of fixing up or building places and/or communities it is in actually a process that adopts the creation of communities, the kind of places where people feel a strong stake in their communities and commit to making things better.

Recent studies from City of Johannesburg show that there are currently 189 registered informal settlements in Johannesburg (Housing Development Agency, 2012a). Although formally registered with the council, the settlements still live under depicted and impoverished conditions. The issue of providing sustainable viable settlements becomes a growing concern by day, as the council is struggling to produce what it has promised its people in the aim of “providing a better life for all”. The government is pressured to meet new responsibilities with a greater accountability and the inclusion of community participation in settlement planning while current governance structures cannot adequately ensure effective delivery of basic services (UNDP, 2013).

The rationale for this paper is to investigate how informal settlements can be transformed in to ‘Great Places’ for communities. It will highlight the critical determinates of place making that will be needed in an informal settlement/ slum such as Kya Sands in order to make it a great place . Firstly the paper will cover what are slums/ informal settlements and conditions thereof. Secondly what great places are and what constitutes as a great place. Thirdly it covers the characteristics of a great place/ place making and how governments can incorporate these techniques in to their plans of slums/ informal settlements in order to make great places. Lastly it will cover what the perception of communities of great places and what they think is needed to make their settlement a “great place”. All in all place making is about communities creating places for their community needs and what is suitable for them.

2. LITERATURE REVIEW

2.1 Introduction

Slums have been defined as the poor living conditions of urban dwellers since the beginning of the term ‘slum’ in the 19th century, when it was first used to describe the conditions of streets, alleyways and/or courts situated in a crowded district of a town or city (Friedman, 1968; Pugalis et al., 2014). The UN-Habitat (2007) defines a slum as a heavily populated area that lacks mainly, sufficient housing, security of tenure, access to basic service (e.g. Water and sanitation) and/ or sufficient living space. The structure that mainly exits in informal settlement/slums usually do not comply with minimum standard planning and building regulations, they are an informal and free-market response migration, unemployment and the unaffordability of housing that meets with the legal requirements imposed by revenue and planning regulations (Patel et al., 2011). The word slum is usually used to define different types of low-income housing and deprived living conditions, definition varies from country to country (UN-Habitat, 2006) and it carries a derogative stigma with it. Other terms such as informal settlements, shanty town or low income neighbourhoods have been suggested in the place of the word slum as they appear to be more neutral in their meaning (Pugalis et al., 2014). An informal settlement can be defined as stated by Huchzermeyer and Karam (2006) as those settlements that were not planned by nor have formal permission to exist from government. Srinivas (1991) defines informal settlement/ slums as an area where the urban poor resides and usually have no access to tenure rights and are forced to ‘squat’ on vacant land either private or public.
The word slum/informal settlements have always had a negative representation and for those who live in these places, are readily described as people who are undisciplined, thriftless, dangerous and uncontrollable which is not always the case as studies show that slum dwellers are just ordinary people that just happen to live in extraordinary circumstances due to life’s circumstances (unemployment), structural inequities and injustice in this dominant and neo-liberal global system (Pugalis et al., 2014; Harvey, 2008). People often result to living in slums because there is a lack of affordable housing in the urban area that is close to their work of employment and/or their migration hopes of employment in the city was not successful so they end up unemployed and living in slums (Majale, 2008). In most instances slums/informal settlements emerge because the urban poor are unable to pay for land and housing in compliance with all revenue and planning regulations and to pay for construction that complies with the planning and building regulations (Patel et al., 2011). In spite of the controversies associated with the term ‘slum’, it has re-gained creditability in most countries as those who live in these conditions are usually the ones that identify themselves as ‘slum dwellers’ (d’Cruz and Satterthwaite, 2005). Thus it can be argued that meaning of the term ‘slum’ has evolved beyond the controversies it was previously associated with it (Pugalis et al., 2014).

2.2 The Concept of slums

Slum/Informal settlements mainly formulate due to the increasing rates of population migration to urban areas. Those in search of jobs often move to urban areas where they perceive there would be economic opportunity in hopes of a better life. Unfortunately, most migrants find themselves unemployed, living in one of the many informal settlements on the outskirts of the urban area and marginalised from both access basic services, to economic opportunity and as well as housing opportunities (Allen & Heese, 2013). Problems and issues that mostly arise in informal settlements/slum dwellers are that of social, economic and environmental basis, issues of infrastructure and development, unhealthy living conditions, overcrowding, inadequate services, no economic opportunities and social development (Karam and Huchzermeyer, 2006). In Harvey perspective it can be argued that slum dwellers are not a burden to the urbanising city as they have the right to produce space and the right to the city but could be said that slum dwellers are its most dynamic resources as they bring forth an untapped economic source (informal trading economy) that governments should take in to consideration when it comes to job creations and local economic development strategies.

Rapid urbanisation is a phenomenon of global implication, with far-reaching changes to the spatial compositions of different communities, notably although not limited to countries in the Global South. As most of the world’s population lives in towns and cites, the WHO (2014) states that there is currently an estimated 828 million people who live in slum/informal settlements, representing around 1/3 of the world’s urban population. The vast majority of these slums/informal settlements (more than 90%) are situated in cities of Global South such as Asia, South America and Africa. Sub-Saharan Africa is the currently being recognised as the most urbanising region of the world (UN-Habitat, 2004). In 2011, statistics showed that the urban population in Africa made up about 11% of the world’s urbanised population whereas, by 2050, projections suggest that this will have increased to around 20% (Pugalis et al., 2014).

Some countries in Africa have more than 70% of their inhabitants living in what are universally known to be substandard informal settlements/slum conditions (UN-Habitat 2010). This shows that the current intervention methods being used remain inadequate to improve the living conditions of the majority of the global population, let alone the urban populations, out of poverty. Slums in Sub-Saharan Africa are reported to be the fastest growing urban population in general (UN-Habitat, 2006). In fact, Sub-Saharan Africa has the highest annual slum and urban growth rates i.e. 4.53% and 4.58%, out of any other continent in the world; nearly twice those of southern Asia, where rates are 2.2% and 2.89%, respectively (UN-Habitat, 2006). It has been documented that the majority of ‘slum dwellers’ in the world are between the ages of 18-35. Slums/informal settlements are often economically vibrant; today, about 85 per cent of all new
employment opportunities around the world occur in the informal economy that is something the government should take in to perspective when it comes to job creation strategies.

When it comes to slums, South Africa is of no exception. With famous informal settlement/ slums such as Alexandra and Khayelitsha, they are currently 2 754 reported informal settlements in 70 municipalities in South Africa (Housing Development Agency, 2012b), 434,075 households in Gauteng are living in informal settlements and 189 informal settlements/ slums are registers within the City of Johannesburg jurisdiction. The case study, Kya Sands informal settlement/ slum is one of the 189 registered informal settlements in the City of Johannesburg located, in region A of the municipal boarders.

The terms ‘Slum’ is different from country to country and even more so complex when we consider the different situations faced in different countries and the different languages in Brazil an informal settlement/ slum I called a Favelas, a Kampungs in Indonesia and Bidonvilles in France. “Within the Egyptian context slums have been known as ‘Ashwa’iyyat’, which for them literally means ‘disordered’ or ‘haphazard’” (Khalifa, 2011). It refers to urban areas that suffering from problems of accessibility, informality, very high residential densities, and inadequate infrastructure and no basic services (World Bank, 2008). In South Africa an informal settlement is defined as an “unplanned settlement on land which has not been surveyed or proclaimed as residential, consisting mainly of informal dwellings (shacks)” (Statics SA, 2004). The word ‘Slum’ however, in South Africa it is seen as a derogatory term, although it has a similar definition to the word ‘informal settlement’, but because of the way it was used during the apartheid era to insult and segregate the term is thus excluded (Huchzermeyer, 2004).

Slum dwellers experience different types of problems associated with their living conditions that manifest as a result of different forms of deprivation from economic, physical, social, and political. They live in overcrowded, poorly constructed structures, often with insecure land tenure (WHO, 2014). Housing in these settlements ranges from shacks to plastic sheet tents/ panels on sidewalks and often located in the marginalised/ outskirts of the city such as steep hillsides and riverbanks which are subject to flooding or around industrial areas. Slum dwellers' health is further affected by lack of access to food and clean water, poor sanitation, a breakdown of traditional family structures, high crime, high unemployment rates and no access to education. Due to the high population density, overcrowding, and lack of safe water and sanitation systems (e.g. There is one toilet for every 500 people in the slums of Nairobi) (UN-Habitat, 2010), slums are productive breeding grounds for diseases such as tuberculosis, hepatitis, pneumonia, cholera, Ebola and diarrheal disease. Despite the tremendous need, healthcare services are generally difficult to access in these situations (WHO, 2014) or are sometimes nowhere to be found surrounding the settlements. Across the global community, the challenge of slums has been met by several international initiatives for the improvements of the living conditions of slum settlements and has been identified as a key objective to help achieve the broader goal of eradicating poverty. More so, in South Africa the Target 11 of the Millennium Development Goals (MDG) with the specific target goal to have achieved a significant improvement in the lives of at least 100 million slum dwellers by 2020, which was met ahead of schedule mainly through some informal settlement policies and programmes different governments have implemented since (United Nations, 2013; Patel et al, 2014; Gulyani et al., 2014).

This Target 11 initiative has thus lead way to many informal settlements/ slum upgrading strategies and programmes in different countries. Some scholars would argue that many of the upgrading strategies in place in many countries are just cookie cut strategies that sometimes work and do not work as they do not take in to perspective the country and/or informal settlement/ slum conditions to heart while trying to improve the place. “Donor agencies and local policy makers, in particular in the developing world, require better information about the different conditions in shelter to implement effective urban policies in order to reduce inequalities” (Flood, 1997; Martinez-Martin, 2005; Martinez et al., 2008).
In Nigeria, in an attempt to tackle the problem of slums, the Federal Government asked the World Bank for financial technical support in terms of eradicating their slum problem. Thus, the Nigeria “Community Urban Development Project” (World Bank, 2002) and the “Community based Poverty Reduction Project” were formulated in the process. The slum upgrading programme highlighted a few lessons that the programme proceeded on such as the poor were willing and capable to pay for infrastructure investment and services; capacity-building activities are essential for both communities and local governments; extensive public participation that empowers people was essential for critical decision making; if central and state government agencies implement and carry out upgrading projects separately they are less likely to succeed, because success depends on the implementation and coordination capacity of the one government agency, and it is more likely to fail (Pugalis et al., 2014).

In India Mumbai, UN-Habitat (2003) estimated that there are currently 155 million slum dwellers residing in India. However, when the country itself conducted statistical projections (Census of India) it revealed a vast difference from what was concluded in the UN-Habitat estimation. The domestic figure revealed that there are about 54 million slum dwellers residing in India. This gap could mean significantly affect the budget and resources needed in the upgradesion policies and programmes as currently urban planners rely on these estimates in order to identify household beneficiaries and to budget for slum intervention programs such as the “Environmental Improvement of Urban Slums Program” and the “National Slum Development Program” (Patel et al., 2013). “It is well known that inadequate targeting is one of the main reasons for failing to make the expected impacts of slum policies” (Mathur, 2009). It is thus evident that statistics estimations are crucial part in the eradication of slums and policy making processes (Patel et al., 2013).

2.3 Place making in Informal settlements

Place making is a quiet movement that reimagines public spaces as the heart of every community, in every city. Place making is a transformative approach that inspires people to create and improve their public places (Project for Public Spaces, 2009). The place making practice has had many goals over time, but at its core it has always advocated for a return of public space to people. The idea of making great, social, human-scale places is not new it has been around since the very beginning of planning the context is just changed. Place-making can be defined as ‘the way in which all of us as human beings transform the places in which we find ourselves into places in which we live’ (Lombard, 2014). Elsewhere, place-making has been defined as ‘part of an everyday social process of constructing and reconstructing space’, both a communicative process and an individual mental one highlighting its individual and collective dimensions (Lombard, 2014). Place-making captures the nature of a place, in that it includes the activities of the many ordinary citizens who pass through, live in, use, build, visit or avoid a place, and are thus involved, directly or indirectly, in its physical and social construction (Project for Public Spaces, 2009). In an article by Friedmann, place-making is defined as the process of appropriating space in order to create a ‘mirror of self’. At neighbourhood level, this concept occurs by ‘appropriating an already existing “place”’, through learning about the physical place, getting to know local people, and getting involved in local activities. Through making claims on space with activities such as naming, signifying, taking part in social relations and recurrent rituals, such places become lived in, and ‘by being lived in, urban spaces become humanized’ (Friedmann, 2007)

The objective of exploring informal settlement through place-making is to understand the socio-spatial processes of construction of places in this context, as a response to the gaps in urban theory and the stereotyping of specific types of place through dominant processes of knowledge production. It also serves to emphasise the creative elements of human action, and interaction, which are crucial to constructing these places, not only as locations but also places of meaning to the communities (Lombard, 2014). Place making in informal settlements suggest a way in which governments can minimise poverty and improve the living conditions of many living in such places, thus giving citizens the ‘right to the city’. The Place maker’s Guide to Building Community’, suggests place-making as a means of addressing vulnerability, establishing
local economic activity, counselling local professionals to pay attention to a place, its meaning and association in communities, as well as the location it is situated in. In this instance, place-making is used to understand the meanings assigned to particular places (informal settlement/ slums), both by the residents engaged in constructing them, and in terms of the state and other urban actors, which may contribute to the production of knowledge about these places for effective improvements and development (Silberberg et al, 2013). An effective Place making process capitalizes on a local community’s assets, inspiration, and potential, ultimately creating good public spaces that promote people’s health, happiness, and well-being.

Considering that the shaping of our physical surroundings to better our lives is a basic human activity, place making is often hard to sell. Principals of place making for communities mainly include (Projects for Public Spaces, 2009):

- The community as expects: - Normally people who use a public space regularly are able to provide the most valuable perspective and insights into how the area functions, the needs and what is lacking in the area.
- Creating a place and not designing: - traditional planning methods and technique are to be regarded. Place are formulated on what the communities need and how they can improve their living situations.
- Community participation: - A good place needs partners and stakeholder together with the communities who contribute ground-breaking ideas, financial or political support, and help plan activities.
- You can see a lot just by observing: - Observation of a space allows designers to learn how places are used and how it can be improved for the better.
- Develop a vision: - a place that has a vision helps provide an identity for the place in terms of its character, the types of activities it has, the uses, and meaning it represents to the community. This vision of the place should be defined by the people in the space.
- Money is not the issue: - funds for settlement upgradesion and improvements are often scares, but should not intervene in the process of place making, government intervention and UN intervention is key in such cases.

The concept of place making in developing countries for informal settlement/ slum upgrading is only recently being introduced. It has been recognised by UN-Habitat that place making can be used as a tool to address human social needs, economic development, environmental consequences and is needed to embrace a sustainable and equitable process that builds community, enhances quality of life, and creates safe and prosperous neighbourhoods in slums/informal settlements (Project for Public spaces, 2009).

3. OBJECTIVES / RESEARCH QUESTIONS

- Identify the key determinants of place making in slum dwellers residing in informal settlements of Kya Sands in Midrand, Johannesburg.
- Identify the characteristics of great place/ place making in slums / informal settlements.
- Highlight the perception of communities about what constitutes ‘great places’ within the context of slums/ informal settlements.

4. APPROACH & METHODOLOGY

The research methodology approach adopted for this study is a mixed method approach that covers both aspects of qualitative and quantitative data. In undertaking this study, Kya Sands informal settlements/ slum
was selected as a case study. Kya Sands informal settlements/slum is one of the 189 registered informal settlements under the jurisdiction of the city of Johannesburg. Many informal settlements/slum in Johannesburg just like Kya Sands lack several basic services and amenities. The slum intervention policies for slum upgradation are not working in some of the informal settlements and thus brings a need to bring new techniques and approaches such as place making in improving the conditions of slums/informal settlements.

Primary data was collected to provide a baseline of the general perspectives about Kya Sand slum/informal settlements, current situation and future government plans thereof. A random sampling technique was adopted and 100 questionnaires were distributed to slum dwellers/residents of Kya Sands informal settlements/slum. The interviews were conducted to the municipal/government officials that work with Kya Sands informal settlements/slum. The interview with ward councillor of Kya Sands ward 96 was also conducted.

5. **RESEARCH ANALYSIS & FINDINGS / RESULTS**

Map 1: Map and location of Kya Sands Informal Settlement

Kya Sands Informal Settlement is located in South Africa's Gauteng province in Region A of the City of Johannesburg, about 15 km north-west of the Sandton Central Business District (CBD). The settlement lies on either side of the North Riding Stream and is closely bordered by the Kya Sand industrial area to the west, the Bloubosrand residential suburb to the east, the Hoogland industrial area to the south and mostly small holdings to the north. The settlement occupies both private and government-owned land, lying on 6 different farm and agricultural holdings. As per 2007 figures of the City of Johannesburg, the initial estimated population of Kaya Sands comprised of 7,500 people living in 1,200 'units' (City of Johannesburg,
A hundred questionnaires were distributed to the local residents of Kya Sands informal settlements, out of 100 participants that took part in the survey study 58% of the residents were male and 42% were female. Around 6% of the residents where between the ages of 18 and younger, 70% of which were between the ages of 19-35, 22% were between the ages of 36-55 and 2% were of the ages 55 and higher. Most of the local residents of Kya Sands which is 62% of this sample is unemployed and only 38% are employed and make less the R7000 per month and are mostly employed by the local surrounding industrial area of Kya Sands. When the survey was conducted a correlation between the employment status and education rates were observed, as there are no schools in Kya Sands informal settlement/ slums (Figure 1), 16% had no education at all, 9% only had primary education, 27% secondary education, 34% had grade 12/ matric education and 14% had higher education/ Graduation (are mainly of foreign nationality such as Mozambique and Zimbabwe). As only most of the people who have had higher education or matric are the ones who are working. It can be observed that as one of the strategies of job creation that the government should adopt is to provide access to schools and/ or encourage some type of education in the settlement.

Figure 1: Kya Sands informal settlement Employment/ Level of Education/ Age comparison data

Participants of the survey were further asked about their housing typologies and number years they have been living in the slum/ informal settlement (Figure 2). 66% of the residents stated they live in shacks, 21% in wood panel housing structure and 11% in brick housing structures, figure 2 shows the number of years/ living status of the residents.
Most of the local economic activity that occurs in the settlement are of informal nature, such as Spaza/ tuck shops, vegetable and fruit markets, kitchenettes (restaurants), salons, taverns, shoe repairs business and crèches. The survey also observed if there was an interest in the community in establishing their own business. 83% of the respondents said that they had interest in the community economic activities in creating their own businesses. The challenges for funding was reported as one of the biggest problem. Around 17% reported they were interested in government support instead of them doing something for themselves to improve their current living conditions.

The general perception of the community about the government intervention efforts in the informal settlement/ slum is very negative. Most of the community thinks that the delays of the government are caused mainly by corruption within the government, that the governments does not care about the settlement; that the government thinks their settlement is a dumping ground and is not worth fixing etc. Many of the residents of the informal settlement/ slum identified crime as one of the biggest problems facing their community apart from poverty and lack of basic services such as electricity and sanitation and said that the ward councillor or police are of little help. Crime such as mugging, burglary, rape, drug and even murder are of a grave concern to the community members.

The ward councillor of Kya Sands informal settlements/ slum wards 96
In an interview with the ward councillor, the council’s future plans for the informal settlement/ slum were discussed. The government plans on the relocation of the slum dwellers to government owned land formally known as Lions Park, where mixed development housing will be build, as the current land that the slum dwellers are currently residing on is both government owned and a portion is privately owned and the settlement has infringed on the privately owned land. The ward councillor also discussed that the government has a few intervention project and programmes in place to ease the slum dwellers living conditions and create some kind of economic income in the meantime before relocation can occur, with projects such as the pikitus up clean-up of surrounding area and sorting for recycling purposes.

It was also highlighted that the informal trading sector has been recognised to have a huge influence on income and economic activity in the informal settlements. With new projects such as the Gauteng Premiers initiative for boosting economic development is targeted at townships and informal settlements/ slums to help legalise informal trading and encourage entrepreneurship in communities. The ward councillor has also stated that whatever the council is planning is often communicated with the community and there has been sufficient public participation that happens in the settlement contrary to popular believe that the slum dwellers are not told of anything that happens in the community in terms of upgradations, plans or renewals.

**Place Making Determinants**

In the survey conducted, the respondents were asked questions about place making and how they think what makes a great place and what factors are needed. The key determinants highlighted by the respondents include access to adequate: housing, public transport, social facilities (school, hospitals, shopping centres and employment opportunities etc.), affordable rates and taxes, crime prevention techniques, community to be involved in planning processes, mixed use development and ownership of shelter/ property where of importance to make a place great for habitation. Half of the sample size felt that there is a need for the place to have sufficient private and public parking spaces, green open spaces, and place signage. While the other half felt that those determinates are frivolous and they can live without them and are not as important or urgently needed in order to make a place great for habitation.

Photo 1: Kya Sands informal settlements/ slum local area
Table 1: Place making determinants

The table indicates the communities view on what in their perspective is relevant for making great places in informal settlements. Eight of the 14 determinants were fully agreed by the respondents as critical determinants for place making in informal settlements (Figure 3). These determinants include access to: sufficient housing facilities, public transit system, social amenities and facilities (schools, hospitals, shopping, entertainment, employment, and recreation), shelter ownership, well planned and designed areas, mixed land use pattern, community engagement and participation, and adequate measures for crime prevention and safety.

Figure 3: Eight of the Place making determinants (Score 5: Highly Relevant; Score 4: Relevant; Score 3: Slightly Relevant; Score 2: Neutral; Score 1: Not/ Least Relevant)
Many of the residents indicated that for them things like private parking spaces are not of urgent need (Figure 4) or would not be fully utilised in their communities instead many felt that there is a high need for things like green open public spaces (parks) for kids to play as they are currently plying on rubbish dumps and adequate facilities such as schools and hospitals that lack in their communities. Some of the residents expressed that they are unwilling to pay rates solely on the fact that they are not employed. Among the critical determinants deemed highly relevant by respondents in place making of informal settlements include: ownership of shelter, mixed land use pattern, community engagement and participation, adequate measures for crime prevention and safety, and access to public transit and social amenities/facilities.
Figure 4: Eight of the place making determinants negatively scored by the residents (Score 5: Highly Relevant; Score 4: Relevant; Score 3: Slightly Relevant; Score 2: Neutral; Score 1: Not/ Least Relevant)

6. RESEARCH CONTRIBUTION

The informal settlement dwellers are challenged with multitude of issues which broadly range in terms of infrastructure, service delivery, access to adequate livelihood opportunities and quality of life. The research highlights the need for critical determinants essential for upgrading informal settlements through the approach of place making for turning informal settlements into great places for the communities.

7. CONCLUDING REMARKS

In order to archive the UN-Habitat Target 11 Millennium Development Goals for eradicating informal settlement/slums and poverty in the long run it is clear that governments cannot just provide shelter and basic service only, but there is a need to identify that services such as education, health and employment opportunity provisions contributes the better lively hoods of slum dwellers and that informal economic activities are the core stables that provide many of the residents with food to survive and that there is a need for government to not only recognise this but possibly try to formalise the informal sector. Place making is not only about letting communities extensively involved in the improvements of their communities through development only, place making is also about recognising the communities ability to grow and sustain itself.

The whole concept of place making in informal settlements is for governments to realise what works for such communities and design intervention plans thereof for specific situation. For instance in this study through the aid of place making it helped identify what the Kya Sands informal settlements residents deemed for them necessary to have within their community in order for it to strive. The survey conducted also helped bring focus on issues that are facing the community and possibly hindering its progress, issues such as unemployment, lack of education and crime. The conclusion brought forth by the overall survey collected is that there is a disparity in council and community communication and it also identified some areas where the government slum policies can change or improve in terms of the community needs.
The aim for this paper was to investigate how informal settlements can be possibly transformed into ‘Great Places’ for different communities depending on their current living situations. It has highlighted the critical determinants of place making that will be needed in an informal settlement/slum such as Kya Sands in order to make it a great place. Firstly the paper covered the context slums/informal settlements and their conditions thereof. Secondly what great places are and what constitutes as a great place. Thirdly it covers the characteristics and principals of a great place/place making and how governments can incorporate these techniques in to their plans of slums/informal settlements in order to make great places. Lastly it covers what the perception of communities of great places and what they think is needed to make their settlement a “great place”. Although this concept of place-making is new and has yet to be seen incorporated in the context of informal settlement/slums, but it holds promising results that suggest it can help with this problem of informality and inequality in the cities of today.

8. RESEARCH LIMITATION

The research is limited to Kaya Sands informal settlement and the results represent key determinants which are influenced by the demographics, socio-economic and informal settlements conditions of Kya Sands only. The results obtained as part of the survey may not be necessarily generalized for all the informal settlements and hence requires inclusion of more case studies for representative informal settlements.

9. FURTHER RESEARCH

The subject of informal settlement/slum is a complex one, not only for South Africa but globally as well. A more in depth study in the subject of place making as an alternative means of intervention would be of great use in the future. For instance further studies should be conducted in order to look in to what other factors such as lack of education, contribute to the formulation and creation of slum/informal settlements and how the concept of place making can benefit communities in to creating spaces that are theirs and suitable for them. Thus, future research in this field of study should seek to explore further, not only from an economic perspective but also a social, environmental and psychological perspectives of how people not only relate to places but also influence how places are formed.

10. REFERENCES


d’Cruz, C and Satterthwaite, D. 2005. Building homes, changing official approaches: The work of urban poor organizations and their federations and their contributions to meeting the millennium development goals in urban areas. Paper developed from a background report for the Millennium Project’s Taskforce on Improving the Lives of Slum Dwellers, Human Settlement Programme, IIED. Available at: www.pubs.iied.org/pdfs/9547IIED.pdf (Accessed June 2014).


Harvey, D. 2008. The right to the city. New Left Review 53: 23–40


A Comparative Study of Overcrowding and its Impact on Basic Urban Facilities in Hillbrow and Alexandra

Fezile Felicity Mkhabela 1, George Okechukwu Onatu 2

1 Baccalaureus Technologiae (B.Tech) Research Student
2 Lecturer and Head of Department of Town and Regional Planning
University of Johannesburg, John Orr Building, Doornfontein Campus, Johannesburg,
Gauteng Province, Republic of South Africa
Tel: +27 11 559 6428; Fax: +27 11 559 6630
1 Email: mkhabelafezile@gmail.com, 2 Email: gonatu@uj.ac.za

Abstract

The issue of overcrowding and its impact on limited urban infrastructural services has been a major challenge for planners and built environment practitioners all over the world. Increasing densities in urban areas has resulted in the existing infrastructure (sewerage refuse, water, electricity and storm water) not coping. Overcrowding is a major issue and contributes to urban decay with respect to the increases in informal settlements, shacks, and the occupation of abandoned or deteriorated buildings. Overcrowding causes a strain on the social and environmental resources in urban areas. The importance of this study lies in its engagement with crosscutting and yet complex issues of rapid urbanisation, unemployment and a growing demand for adequate housing by the urban poor. The study is also important because South Africa and the rest of the BRICS countries are said to be experiencing a growing number of people residing in cities. Urban planners need to engage with the issue of urbanisation, urban decay and overcrowding urgently.

This study aims to analyse the phenomenon of overcrowding and its impact on basic infrastructure and services in Hillbrow and Alexandra. The two areas were chosen because Alexandra is one of the oldest, most densely populated and closest Black Township to the Central Business District of Johannesburg and Hillbrow the most densely populated inner-city residential neighbourhood in South Africa. It has been undertaken to answer the following question: To what extent does the post-apartheid city of Johannesburg respond to the challenges resulting from rapid urbanisation, specifically overcrowding? The following themes: Urbanisation (Overcrowding); Urban Poverty; Basic Urban Facilities and the Optimal Centrality Theory and The theory of relative deprivation (by Freire) are outlined in the Literature Review and Conceptual Framework.

A Case Study Research and a mixed approach has been employed. The targeted sample group are residents occupying buildings likely to be overcrowded and the sample size is of thirty respondents. The Random sampling and Purposive sampling techniques were employed by the researcher. The study reveals the challenge that the post-apartheid City of Johannesburg is facing with respect to overcrowding and impact on service delivery. It is evident that there is a direct relation between overcrowding and its impacts on basic urban services. Overcrowded settlements are characterised as having insecure residential status; inadequate access to safe water; inadequate access to sanitation and other basic infrastructure and services; poor structural quality of housing.

Keywords: Overcrowding, Urban Planning Challenge, Poverty and Municipal Services.
1. INTRODUCTION

Urban poverty has worsened in post-apartheid South Africa, despite the formulation of several policies aimed at tackling urban poverty, these include the Water and Sanitation White Paper, the Housing White Papers the Municipal Infrastructure Investment Framework, the Local Government White Paper and the Energy White Paper and Reconstruction and Development Programme (RDP) and the Urban Development Strategy, the Urban Development Framework, Developmental Local Government and the Urban Renewal Programme (Nleya, 2008). The Constitution of South Africa 1996; Development Facilitation Act 67 of 1995; the Local Government: Municipal Systems Act 32 of 2000 and the White Paper on Spatial Planning and Land Use Management (Van Wyk,J., 2012). It is important that the post-apartheid cities be able to manage finances hence the adoption of policies such as the Local Government: Municipal Finance Management Act (No 56 of 2003).

South Africa has stepped into a lively era of restructuring. It is apparent that major disparities in the provision of socio-economic public services, such as health, water and sanitation need to be addressed. Even though ambitious plans have been prepared that could direct towards improving the health of everyone, mainly the poor in rural areas, inconsistency still exists (Manona and Cloete, 2007). Johannesburg is one of the cities in South Africa which are a victim of apartheid. This is seen in the spatial urban form of the city.

Johannesburg was established in 1886, when rich gold deposits were revealed on the Witwatersrand. It fell within the borders of the Boer republic of the Transvaal (Maki, 2010:101). The city has a populace of roughly 4.4 million made up mainly of young people (Stats SA, Census 2011). The City of Johannesburg Metropolitan area is one of the largest metropolitan areas in South Africa. It is a city of massive diversity with residential areas which range from leafy, low-density extremely wealthy suburbs to densely packed, extremely poor shack settlements. There is a divide between the wealthy north and the poorer south, even though there are areas of poverty in the north and wealth in the south (COJ, 2009).

Johannesburg throughout apartheid was a two tier city: in the initial tier whites lived in residential neighbourhoods heavily regulated and at the same time, driven by markets; the second tier consisted in number of ‘black’ and ‘coloured’ townships built within severe borders, that could not usually expand and where majority of people were living in rental housing owned by the state. Whites were living in low-density residential areas, which extended in distant suburbs well served by a network of highways (Ahmad, 2010).

Whites as known as the settlers consumed a massive portion of land per households and were situated around the CBD (Central Business District). Blacks as known as the natives consumed much less land in townships situated in the periphery. They commuted to the CBD by trains, buses and communal taxis, while the settlers used private cars (Ahmad, 2010). The apartheid history of the city is the basis of the high levels of inequality, poverty, lack in the supply of services, increasing population, health and sanitary conditions which pose a major stumbling block (Maki, 2010:103) (COJ, 2009).

The post-apartheid City of Johannesburg is faced which the challenge overcrowding which resulted from rapid urbanisation. The post-apartheid Johannesburg inner city came under extreme pressure. Business flight continued through the 1990s. Increasingly, empty office buildings were converted into, mainly illegally, to residential flats accommodated the influx of in-migrants from South African and other African Countries (COJ, 2009).

Overcrowding is mainly amongst the low-income groups or poor and it has an influence on the distribution of basic urban facilities or services to low-income groups or poor people (COI-JICUDIP, 2009). Increasing densities in urban areas results in the existing infrastructure not coping (sewerage refuses, water, electricity and storm water) Overcrowding increases informal settlements, shacks, abandoned and deteriorated
buildings, causes a strain on social and environmental resources. The areas chosen (Hillbrow and Alexandra) for this study are both situated in the City of Johannesburg Metropolitan.

2. THE OBJECTIVES OF THE STUDY

- To conduct a quantitative study of the level of overcrowding in the study area.
- To assess the ease to which people access basic facilities and services.
- To examine the socio-economic characteristics of the residents in the area.
- To determine the relationship between level of overcrowding and access to basic facilities and services.

3. RESEARCH DESIGN

The mixed approach research design is employed in this study, which involves both qualitative and quantitative aspects. According to Yin (2009:17) the core of a case study is that it tries to clarify a decision or set of decisions: why they were taken, how they were implemented, and with what result. There are two main research paradigms available to a researcher, quantitative and qualitative research. The distinction between qualitative and quantitative research is not always clear. Qualitative research is any kind of research that produces findings not by means of statistical procedures or other means quantification. Quantitative methods are used essentially to test or verify theories or explanations identify variables to study, relate variables in questions or hypothesis use statistical standards of validity and reliability, and employ statistical procedures for analysis. Qualitative research methods apply value judgements to generate insights (Hosking, 2013). Quantitative research methods provide the advantages such as the cost is practically low and data collection is faster when sampling is used instead of surveying the entire population. Quantitative research often uses questionnaires as a data collection method and measuring instruments (Ngonyama, 2012). Well thought-out questionnaires were employed to collect data, in this study Linker scale were to test individual participants and result measured and quantified in this study. Quantitative research was also employed to examine relationships between and among variables. It also led to meaningful interpretations of data (Ngonyama, 2012).

4. LITERATURE REVIEW AND OTHER RESEARCH

A study by Sengendo (1997) reveals that Third World Cities (TWCs) are faced lack of safe water supply, sanitation and drainage, inadequate solid and hazardous waste management, unrestrained emissions from factories and cars, accidents linked to traffic congestion, overcrowding, dangerous occupations, and degradation of environmentally sensitive lands. The economic costs of all these problems fall most heavily on the urban poor. Studies by other researchers reveal that rural poverty, overpopulation, lack of alternative wage employment other than agriculture are some of the factors which have tended to push the youthful from rural areas to the city. Cities act like magnets for the youthful, particularly those who have attained some sort of education. It promises economic gain in the form of money and the benefits of modernity (good house, car, technology). Push and pull factors do not operate alone. Urbanisation is good for socioeconomic development, but there is a limit to how far the process can be left on its own. In general terms, such policy formation is relatively straightforward reveals (Kalipeni, 1997).

It is anticipated that by 2050 the urban population of the developing world will be 5.3 billion, with Asia hosting 63% and Africa 25% of the urban population. As cities grow it is becoming more and clearer that urban environments, particularly informal settlements, are not healthy environments. Scholars have made known that rapid urbanisation is taking place against a background of increasing personal wealth, information and knowledge but also, by distinction, weakened global economies resulting in increasing levels of urban poverty, insecurity, unemployment, homelessness, crime and health inequities (Rao, 2011).
Crowding can be defined as a condition of being filled with additional people or things than desirable; congestion (Farley, 2009). According to Maryland (2007) other popular definitions of overcrowding included: the total number of persons in a unit, regardless of unit size; the ratio of persons to floor space in square feet; and the person-to-size ratio adjusted for household composition, structure type, location, or lot size. Durand-Lasserre (2006) states in most cities, according to the United Nations Human Settlements Program (UN-Habitat), “the worsening state of access to shelter and security of tenure results in severe overcrowding, homelessness, and environmental health problems”.

According to Chai (2012) urban sprawl or overcrowding can be defined as follows: the unrestrained spread of urban development into neighbouring regions. It is fast growth of a city, into rural areas around the city and a dense number of people in an undersized area, meaning that the ratio of people to a certain place is ‘big to small’. It becomes a snowball effect: when an area happens to be popular, more people will travel there and want to live there. When there is an abundance of people in a condensed area. Therefore, the area just keeps growing bigger and bigger.

According to Marshy (1999) overcrowding has mainly the following effects: Health effects, Social effects and psychological effects. Overcrowding poses severe direct and indirect health risks to all segments of the population, particularly the elderly, young children, and the disable. It results in insufficient aeration in homes, causing illness. The lack of space and overcrowding also directly impacts on the physical development and psychological well-being of disabled residents.

Social effects of overcrowding include placing a strain on social relations within the home and community. Overcrowding in schools and homes is linked to substandard education and functional illiteracy. It also affects women’s access to social and economic resources. Psychological effects: Lack of privacy is linked to depression and other negative psychological outcomes. However it also contributes psychological frustrations and refugees’ perception of options and future prospects is detrimentally affected by overcrowding Marshy (1999).

The UN (United Nations) Habitat suggests that overcrowding has traditionally been calculated by the number of individuals (all ages) per room, on an in-house. Space per person and the number of person’s per bed may also be indicators of overcrowding. One measurement considers population pressure on land as in population density. A high population density in a low income area may create a strain on housing or in-house living space, pressure on services such as water supply, and can lead to degradation of the local environment.

Crowding indicators can be divided into the following categories: Area level, building level, housing unit level and household level outlines the UN Habitat.

**Table of Crowding Indicators**

<table>
<thead>
<tr>
<th>Crowding Indicator categories</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area Level</td>
<td>• No. of persons/area</td>
</tr>
<tr>
<td></td>
<td>• No. of households/area</td>
</tr>
<tr>
<td></td>
<td>• No. of housing units/area</td>
</tr>
<tr>
<td></td>
<td>• No. of persons (potential users)/public water source</td>
</tr>
<tr>
<td></td>
<td>• No. of persons (potential users)/public toilet facility</td>
</tr>
<tr>
<td></td>
<td>Usually measured in ha or km^2</td>
</tr>
<tr>
<td>Building Level</td>
<td>• No. of persons/building</td>
</tr>
</tbody>
</table>
Table 1: Crowding Indicators

Source: http://books.google.co.za/books?id=x5i576nYFN0C&printsec=frontcover&source=gbs_ge_summary_r&cad=0#v=onepage&q&f=false

According to CSIR (2005) the impact of residential density on the cost of service provision is different for each service. The total cost of water and sewerage provision, for instance, increases as density increases, with larger and more expensive piping requirements. Due to the sharing of costs by more users, the net cost is lower. The cost of other services such as street lighting remains fairly stable irrespective of density. It is also established that certain services only become viable at a certain density, such as public transport, for instance, which requires densities in the region of 50 to 100 dwelling units per hectare to be feasible. As density amplifies, so servicing costs of a particular land subdivision will increase. Increased densities result in an increase in the number of service connections which have to be installed and possibly a higher standard of services to cope with the increased demand.

According to The World Health Organization and UNICEF (2006) the problem of sanitation in slums is critical and complex because of high population density, poor urban infrastructure, lack of space, lack of secure tenure, and sustained poverty. Communal facilities are used in many slums and obviously provide a better level of sanitation than practices such as open defecation, faeces disposal with solid waste, or the notorious flying toilets.

5. THEORETICAL AND CONCEPTUAL FRAMEWORK

The research topic is a ‘comparative study of overcrowding and its impact on basic urban facilities’ in Hillbrow and Alexandra seeks to analyse the relationship between the two variables: overcrowding and basic urban facilities. The conceptual frameworks identified are related to overcrowding and the provision of urban services to the community.
Optimal Centrality Theory

Marans and Stimson (2011) suggests theories relating to a consideration of the built environment include Optimal Centrality Theory, which relates urban density, access to services and facilities and overloading of urban structure to QOL (Quality of Life). It suggests that there is an optimum urban scale or urban size which maximizes trade-offs between benefits of “city effect” and costs of “urban load”. This city effect or urbanization effect might mean improve access opportunities, services, and facilities that are available by virtue of the city’s size. In contrast, the urban load effect might mean negative consequences as a result of urban growth (for example, congestion, overcrowding, cost of housing, and environmental degradation). The theory postulates that there will be net benefits to the QOUL as small urban centres growth and additional services and facilities are provided, at the same time, relatively low costs are incurred in terms of increased urban load.

It has been shown that access to services and facilities is an important component of subjective QOL. For example community satisfaction has been predicted by the provision of services and facilities such as education services, emergency services, public transportation, parks, shopping and leisure opportunities. High density and rapidly growing urban environments have been associate with increased economic, social and environmental stress an research has shown residents prefer lower density urban environments (Marans and Stimson, 2011:81).

The Theory of Relative Deprivation

This conceptual basis enable one to classify and measure the poverty and service access situation a country, like South Africa. It assists in gaining a better understanding of attitudes and perceptions towards service delivery, and to conceive intervention frameworks that might be the solution to the situation. The lofty occurrence of mass protests in South Africa in response to the insufficient service delivery can be explained by alternative to the social theory of relative deprivation (Nleya, 2008).

Relative deprivation refers to a condition where a demographic section of the population is disadvantaged of some goods or services to which they perceive they are entitled, while another section of the population enjoys such goods or services. The sense of relative deprivation could have consequences for attitudes and perceptions towards service delivery. It could lead to social movements and protests as people unite together to insist what they perceive as their fair share of the system. The setting for the mass action is social deprivation and lack of basic services, which still negatively impact the majority of individuals and communities in South Africa and prevent their absconding from the poverty catch (Nnadozie, 2013).

The majority of the people in South Africa are not only deprived of access to basic services but also sidelined from the mainstream activities and processes leading to the provision of such services. This calls for government intervention for a complete refurbishment of the system. A participatory neighbourhood development intercession may be most efficient to effect such extensive change. Freire’s theoretical model, outlined in The Pedagogy of the Oppressed (Freire 1970), outlines that communities and individuals must be lively driving forces in their development, rather than continuous inactive agents, on the receiving end of governmental or institutional help. The transfer to a more proactive development approach should not only restructure the basic living conditions of the poor, but also empower them equally as active stakeholders and responsible individuals within engaged communities. Through this democratization process, a refined and effective method should appear that will allow citizens’ say to be heard (Nnadozie, 2013).
Environment and development theory

All development theories include reference to the natural environment. Many approaches have used the natural environment as a source of wealth. There are limits to the natural environment, but these can vary spatially and temporally. Sustainable development has become a key element of many development policies. There is a relationship between poverty and environmental destruction but the link is not always clear. Thomas Malthus theory (1798) elaborated on the relationship between people and the natural environment. Malthus conversed on the effect of rising population on the natural resources base. His theory illustrated that populations and food supply expand in different ways. Food supply increases arithmetically and the population increases geometrically. Malthus approach highlighted that the natural environment acted as an obstacle to population growth (Willis, 2005). Due to issues of carrying capacity and catastrophe, the need for the integration of sustainable development, encouraging green planning and environmental conservation. This study attempts to look at the impact that overcrowding has on basic urban services (resources), and overcrowded areas are home to a number of poor people. They are forced to live in environmentally-fragile or degraded areas. In cities these areas may include areas prone to flooding and pollution, as well as lacking basic infrastructure such as drinking water (Willis, 2005).

6. OVERVIEW OF THE CITY OF JOHANNESBURG

The city of Johannesburg has a total population of 4434827, of which Hillbrow contributes 2% with a population of 74131 and Alexandra contributes 4%, with a population of 179624. The city of Johannesburg is characterised by mostly (72.7%) of people between 15 to 64 years are the working age. The city has an unemployment rate of 25%, which comprises of the youth. The city is home to 1434856 households with the average size of the household being 2.8. The city of Johannesburg has 81.4% formal dwellings (Statistics South Africa, 2012). The researcher assumes that the remaining 18.6% is informal dwellings. In terms of basic urban service the city covers the following: 87.1% flush toilets which are connected to sewerage; 95.3% weekly refuse removal; 64.7% piped water inside dwelling and 90.8% electricity for lighting (Statistics South Africa, 2012).

According to the RSDF 2011/2012 for the Administrative Region E, of the City of Johannesburg existing infrastructure, particularly in the older residential townships, requires ongoing maintenance, upgrading and management. The City is providing water infrastructure under two programmes: The Water Reservoir Upgrading Programme and the Bulk Water Distribution Programme. The developed areas are served by a formal waste collection service. Street cleaning within the economic nodes is of an adequate standard. City Power and ESKOM are the suppliers of electricity to the region. There are significant electricity constraints in the region. The region has fully serviced bulk sewerage reticulation. It is important to upgrade and maintain failing infrastructure to prevent the release of polluted water and sewerage into wetlands and rivers, particularly in the Alexandra area.

7. FINDINGS AND INTERPRETATION

Hillbrow and Alexandra are predominately occupied by Black Africans. 93% of 30 respondents was born in South Africa and 7% were born from another country in Africa. The respondents’ (from both Alexandra and Hillbrow) highest qualification achieved was Matric (Grade 11) and below. The economic status (below average) scored the highest in both Alexandra and Hillbrow. Most of the respondents from Alexandra are between the ages of 29 to 39, unlike in Hillbrow most of the respondents are between the ages brackets of 18 to 28.
Male | 60% | 57%
---|---|---
Female | 40% | 43%

Table 1: Gender comparison

Figure 1: Comparative graphs

Residential Setup

It is noteworthy to state that most (66%) of the respondents from Hillbrow described their residential area as a township, due to the condition of the area, seems neglected, while 34% of the respondents described Hillbrow as a suburb and a shanty town. 27% of the respondents from Hillbrow reside in Abandoned Buildings and 73% stay in rental flats. In Alexandra 20% (backyard room); 20% (Informal dwelling NOT in backyard); 27% (Informal dwelling /shack in backyard) and 33% (Hostel) occupants. A size of household
of 3-6 people scored the highest for both Hillbrow and Alexandra. Most (67%) of the respondents from Alexandra have been residing in Alex for more than ten years, while the rest (33%) have stayed in Alexandra for six to nine years. The number of years which respondents have stayed in Hillbrow is as follows: Mainly 47% (3 to 6 years), followed by 33% (2 to 5 years) and 20% (10 or more years).

<table>
<thead>
<tr>
<th>Housing Structure</th>
<th>Alexandra</th>
<th>Hillbrow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Backyard room</td>
<td>20%</td>
<td>-</td>
</tr>
<tr>
<td>Informal dwelling NOT in backyard</td>
<td>20%</td>
<td>-</td>
</tr>
<tr>
<td>Informal dwelling/shack in backyard</td>
<td>27%</td>
<td>-</td>
</tr>
<tr>
<td>Abandoned building</td>
<td>-</td>
<td>27%</td>
</tr>
<tr>
<td>Hostel</td>
<td>33%</td>
<td>-</td>
</tr>
<tr>
<td>Rental flats</td>
<td>-</td>
<td>73%</td>
</tr>
</tbody>
</table>

Table 2: Type of Housing Structures

![Size of Household](chart.png)
Figure 2: Size of household graph

Figure 3: residential area description graph

<table>
<thead>
<tr>
<th>Description of residential area</th>
<th>Number of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suburb</td>
<td>12</td>
</tr>
<tr>
<td>Township</td>
<td>10</td>
</tr>
<tr>
<td>Shanty Town</td>
<td>8</td>
</tr>
<tr>
<td>Squatter Settlements</td>
<td>6</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description of residential area</th>
<th>Number of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suburb</td>
<td>12</td>
</tr>
<tr>
<td>Township</td>
<td>10</td>
</tr>
<tr>
<td>Shanty Town</td>
<td>8</td>
</tr>
<tr>
<td>Squatter Settlements</td>
<td>6</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
</tr>
</tbody>
</table>

Figure 4: Graph representing the number of years for occupancy
BASIC URBAN SERVICES

The study focused on mainly the following basic urban services: Water and Sanitation; Electricity; Refuse Removal; Social Infrastructure and Roads. The type of basic urban services mostly available in Hillbrow and Alexandra include the Water and Sanitation, Refuse Removal, Electricity and Roads. Basic urban services that respondents stated were unavailable to them include Social Infrastructure, followed by refuse removal, water and sanitation, electricity and roads. The findings illustrate that Social Infrastructure scored the highest for types of services not available in both Hillbrow and Alexandra. Alexandra Township is faced with serious urban service backlog, due to the high number of type of urban services not available to the respondents.

The Informal Settlements do not have access to services besides the Ventilated Improved Pit or portable or chemical toilets provided by the municipality. These are not only unpleasant to use but are costly for the council to service. These toilets are placed on the periphery of the informal cluster. Due to space limitations within the area and the constant threat of crime, residents do not endeavour out in the night to use the facilities. Occupants employ the overnight containerisation of wastewater which is disposed the next day.

![Figure 5: Graph representing the type of services available to respondents](image-url)
How often do the following activities take place in Alexandra (A) and Hillbrow (H)?

The respondents were posed with the above question, regarding activities on urban services in both Hillbrow and Alexandra. The results projected for both the study areas were common in the following activities: disposal of water or refuses take place sometimes; spill over of sewerage along streets always take place; Regular power failures always take place and Repairs (maintenance of broken infrastructure) never take place. 60% of the respondents from Alexandra always experience interruption on water supply.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Always</th>
<th>Often</th>
<th>Sometimes</th>
<th>Seldom</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interruption on water supply</td>
<td>60% A</td>
<td>13% A</td>
<td>20% A</td>
<td>7% A</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>27% H</td>
<td>7% H</td>
<td>13% H</td>
<td>6% H</td>
<td>47% H</td>
</tr>
<tr>
<td>Regular Power Failure</td>
<td>27% A</td>
<td>27% A</td>
<td>40% A</td>
<td>6% A</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>27% H</td>
<td>-</td>
<td>13% H</td>
<td>20% H</td>
<td>40% H</td>
</tr>
<tr>
<td>Disposal of water or refuses</td>
<td>40% A</td>
<td>27% A</td>
<td>33% A</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>13% H</td>
<td>-</td>
<td>20% H</td>
<td>7% H</td>
<td>60% H</td>
</tr>
</tbody>
</table>
Spill-over of sewerage along street | 73% A | 27% A | - | - | -
| 67% H | - | 13% H | - | 20% H

Repairs (maintenance of broken infrastructure) | 7% A | - | 40% A | 20% A | 33% A
| 13% H | 7% H | 27% H | 6% H | 47% H

Table 3: Occurrence of urban service related activities

<table>
<thead>
<tr>
<th>Always</th>
<th>Often</th>
<th>Sometimes</th>
<th>Seldom</th>
<th>Never</th>
</tr>
</thead>
</table>

8. MUNICIPAL RATES AND CHARGES

The total number of respondents of this study (from both Alexandra and Hillbrow) make payment of the following services (water and sanitation; electricity; refuse removal) inclusive in their rent. Most (67%) of the respondents from Hillbrow are happy with their bill for Municipal rates and charges. This percentage comprises of respondents residing in rental flats. The rental flat occupants pay a minimum of R1650 per month and a maximum of R3000 per month for the rent. Abandoned buildings occupants pay no rent or a minimum of R500 per month to their slum lord, this amount includes having access to basic urban services such as water and electricity. Hostel and Backyard occupants in Alexandra pay a rent of minimum R50 and a maximum of R500 per month. The hostel occupants are unhappy with their affordable bill (R50 per month) due to their living conditions. People are more likely to pay tariffs if they see the results or benefits of doing so. Abandoned buildings in Hillbrow make use of services from other well serviced buildings through illegal connections. This is a result in a strain on the infrastructure capacity of the city. In environmental terms the carrying capacity of the city affects its resources.
The environment is so complex that we are heading for a catastrophe. Catastrophe refers to nature’s way of restoring balance between available resources and population size. With the background of environmental studies inferences can be drawn that, the Infrastructure system can only carry x potential, and if stretched the environment will be able to maintained until a certain point and then collapse. The resources (water,
power provision) within a certain ecosystem (Infrastructure system) are not unlimited and as population numbers increase the competition for resources increases

City of Johannesburg, Department of Housing Official in a personal interview outlined that the City may tend to leave abandoned buildings in their deteriorated state, due to high maintenance and owner of the building may have fled the country, the building is likely to be in debt regarding municipal rates and taxes. The COJ Department of Housing outlined that having to evict occupants from abandoned buildings is a crisis on its own. The Constitution (Act 108 of 1996) Chapter 2, Section 26 (1) states that everyone has the right to have access to adequate housing. When the city evicts the abandoned building occupants they have the responsibility of providing them with an alternative housing.

Political Parties may tend to take advantage of the living conditions of Informal dwelling, abandoned building occupants during elections through making false promises. A new type of struggle take place post-apartheid, economic struggle. According to the Department of Housing official, the gap between the rich and poor continues to widen. The City of Johannesburg proposes that development must encouraged along the corridors (east-west, north south). However the land close to the corridors is prime land, building formal housing there for the urban poor is an option but the poor may not be able to afford the rates and taxes there. This is used as a strategic management tool or control measure, keeping certain racial groups away from certain places. How much you earn and where you reside is the new segregation tool, the urban poor still remains marginalised and likely to occupy overcrowded, abandoned, informal settlements, hostels and backyard shacks.

There is a link between the residential setup and urban services. In Alexandra the respondents from the Informal settlements are faced with a crisis regarding urban services, however their complaints may not be effective as their residential setup or area (along the Juskei river) is not a conducive environment for the City of Johannesburg service providers, to provide proper infrastructure or permanent infrastructure under the current conditions.

The participants residing in hostels have been residing there for 10 years or more, and their household size, and the economic status of these people is below average and some of the respondents are receiving pension. This indicates that some of this hostel has residing by the hostel since the dawn of democracy and prior to. This particular group of people pay a minimum rent of R50 and yet they are not happy will the bill, as they do not see the value for their money. A Low Bill and Lower access to basic urban services. They raise their complaints through protests and community meetings that are held.

A noteworthy finding is that people residing in overcrowded areas or slums or informal settlements, do not lodge complaints to the municipality, rather they protest on service delivery. It is intriguing that they are informal dwellers (residing in unsuitable urban settings or not promoted for sustainable human settlements) yet they expect to receive urban services. Although the constitution states that everyone has a right to basic urban services, the context at which these people receive municipal services is important, for example a formalised settlement. It is understandable complaining when you are at an RDP formalised structure by the government, rather than in informal settlement? Yet again government strategy of providing housing to all city dwellers has failed to a certain extent, hence the need to provide services even when you are located in a formal or informal settlement?

9. CONCLUDING COMMENTS

The study highlights that access to essential services are categorised under the basic needs umbrella and meeting the basic needs of the poor would not only reduce poverty levels, but also would improve the education and skill levels of the population. Recovering public services are financially demanding. Other
researchers have revealed that political restructuring of the city government by itself will not solve the innumerable problems facing the modern African city. Poverty and inequality in the city of Johannesburg are often linked to past policies of segregation and apartheid. Increasing densities in the city have implication on the existing infrastructure is not coping and creates environmental problems. This is the challenge that the post-apartheid City of Johannesburg is facing. It is evident that there is a direct relation between overcrowding and its impacts on basic urban services. Overcrowded settlements are characterised as having insecure residential status; inadequate access to safe water; inadequate access to sanitation and other basic infrastructure and services; poor structural quality of housing.

10. RECOMMENDATIONS

The City of Johannesburg must accept the mounting challenges of overcrowding and basic urban facilities and considering the urban growth taking place due to rapid urbanisation, under the current institutional arrangements, and that these may need urgent review if serious adverse economic consequences are to be averted. People are more likely to pay tariffs if they see the results or benefits of doing so. There is a need to clarify urgently economically what the City of Johannesburg is trying to achieve through the municipal rates and charges linked to basic urban services (water, sanitation, and refuse removal) delivery.

There is a necessity to turn away from serious distorting effects, more attention needs to be concentrated on demand and in turn require municipalities to put more effort into generating knowledge about this demand. To avert serious distorting effects, more attention needs to be concentrated on demand and in turn require COJ to put more effort into generating knowledge about this demand.

The Department of Water Affairs (DWA) and Water Boards must be transparent when determining tariffs to be charged to municipalities for basic urban services. The City of Johannesburg must record water service interruptions and waste water failures diligently in order to raise the risk profile of the water service.

The formulation of policies and plans for implementation must correspond to what is happening on the ground. The plans are good but implementation still remains a problem. More public participation is required which is not influenced by conflict of interest. City officials should deviate from going on ground by making solid conclusions prior to public consultation. Poor people know best their own economic and social needs and problems, and have insights and ideas about what might be done to solve them. Effective participation of the underprivileged in the preparation, design or planning phases of projects will sprout great results.

Urban planners need to consider the African Charter on Popular Participation which was the Best Expression of popular participation. It supports the participation of the poor and marginalised people in development initiative which is intended to benefit them and also has been acknowledge as important in achieving sustainable development. The gap between the rich and poor continues to widen. Various impacts can be achieved through participatory development initiatives. The most important are the sustainable improvements in social and economic conditions of the poor for whom the initiative is intended.

11. REFERENCES


Ngonyama, H., 2012. Urbanisation and the Development of Informal Settlements in the City of Johannesburg, s.l.: UNISA.


Towards the Development of National Land Use Classification Framework for South Africa

Cecilia Njenga, Mac Mashiri ¹, Peter Njenga
James Chakwizira, Maartin Friedrich, Sunday Ogunronbi

Executive Director, Gwarajena TRD
Mac Mashiri, GTRD
25A Barnstable Road, Lynnwood Manor 0081
PO Box 1683 Faerie Glen, Pretoria 0043
Landline: +27 12 348 5008, Fax: 0866 209 775 / 0866 942 128
¹ Email: macmashiri@telkomsa.net

Abstract

One of the main land use management challenges in South Africa is the absence of a standard National Land Use Classification System. Currently, land-use management is governed by a wide array of laws, regulations and policy regimes. These include the framework principles established by the constitution in regard to access to housing, land, property, equity and social justice. There is also a regime of national and provincial laws all of which – with good intentions – purport to be a means to overcome the effects of historical spatial imbalances, and reconstruct human settlements that provide equal opportunities for all. Inevitably, these different laws lead to uncoordinated spatial planning approaches and the collection of incompatible land use data sets across the various land use planning spheres.

In 2013, the government thus enacted the Spatial Planning and Land Use Management Act (SPLUMA, 2013) with a view to integrating and aligning the multiplicity of laws, policies and institutions that have an impact on land-use planning in South Africa. Deriving from the constitutional tenets of promotion of socio-economic rights to enhance socio-economic inclusion, SPLUMA aims to establish a uniform, recognisable and comprehensive national spatial planning system throughout the country in order to maintain economic unity, equal opportunity and promote socio-economic inclusion.

The objective of a land use classification is to provide a theoretical structure to guide data collection and creation of effective databases to ensure comparability and compatibility. Accordingly, the classification is expected to be as pragmatic, easy to use and widely recognized and accepted. Since 2012, the Department of Rural Development and Land Reform has embarked on a process that will lead towards the development of a standardized land use classification system and symbology sets across all levels of Government. A number of concurrent projects are being implemented in this regard, including the formation of several thematic working groups. Among them, is one on Land Use Classification (LUC) which is reviewing the existing classification system with the view to providing advice on an appropriate LUC that is applicable to South Africa. The other working group is the LUC Framework Working Group whose responsibility is to provide guidance on framing the key issues and mechanism for transition into a standardized and nationally acceptable land-use classification system for South Africa. This paper describes the work undertaken under the auspices of this working group.

Keywords: National land use classification framework, SPLUMA, incompatible land use data sets, equal opportunity, socio-economic inclusion
1. INTRODUCTION

The Spatial Planning and Land Use Management Act (SPLUMA, 2013) is the framework act for all spatial planning and land use management legislation in South Africa. It is meant to integrate and align the multiplicity of laws, policies and institutions that have an impact on land-use planning in South Africa. Deriving from the constitutional tenets of promotion of socio-economic rights to enhance socio-economic inclusion, SPLUMA aims to establish a uniform, recognisable and comprehensive national spatial planning system throughout the country in order to maintain economic unity, equal opportunity and promote socio-economic inclusion.

One of the main land use management challenges in South Africa is the absence of a National Land Use Classification (NLUC) System. A standard and consistent approach to land use classification at all levels can improve the quality of data collected and promote a framework for a harmonized approach leading to the development of nationally coherent land use information base. Currently, Land Use Management (LUM) is governed by a wide array of laws, regulations and policy regimes. These include the framework principles established by the constitution in regard to access to housing, land, property, equity and social justice. There is also a regime of national, provincial laws all of which – with good intentions – purport to be a means to overcome the effects of historical segregation, and reconstruct human settlements that are integrated with equal opportunities for all. Inevitably, these different laws lead to uncoordinated spatial planning approaches and the collection of incompatible land use data sets across the various land use planning spheres.

A standard and consistent approach to land use classification at all levels can improve the quality of land use management information and promote a framework for a harmonized approach leading to the development of a nationally coherent land use information base. Up to date information on the changing patterns of land use is a prerequisite for better management of land as an economic, social and environmental resource. Knowledge of the present distribution uses such uses as agriculture, recreation, urban development and their changing proportions is needed by legislators and planners to determine better land use policy, to project transportation and utility demand, to identify future development pressure points and to implement effective plans for regional development. The objective of a land use classification is to provide a theoretical structure to guide data collection and creation of effective databases to ensure comparability and compatibility. Accordingly, the classification is expected to be pragmatic, easy to use and widely recognized and accepted.

As part of the process of implementing SPLUMA (2013), the Department of Rural Development and Land Reform (DRDLR) has, since 2013, embarked on a process that will lead towards the development of a standardized land use classification system and symbology sets across all levels of Government. The aim of the classification is to establish a national system (or nomenclature) for naming and defining groups of land use and land cover features. Generally, Land Use Information is widely used by different governmental, quasi-governmental and private organizations in a variety of ways. In South Africa, land-use data is typically collected and classified according to individual user needs and purpose at hand. Thus, it is often not possible to combine different sources adequately due to inconsistencies in the land use categories and definitions used. Different methods of data collection and recording can also limit the use of information beyond the purpose for which it was collected.

Land use classification practices vary considerably across the world. They are generally based on the use category that most closely describes the nature of the principal use. Proper land use classification processes and data are needed to overcome problems of haphazard, uncontrolled development, deteriorating environmental quality, loss of prime agricultural lands, destruction of important wetlands, and loss of marine life and wildlife habitat among others. Knowledge of the present distribution and extent of various land uses such as agricultural, recreational, and urban lands, as well as information on their changing...
proportions, is needed by government agencies and private sector in order to among other things: (i) determine better land use policy in pursuit of various policy goals (ii) project utility demand in various sectors such transportation and energy (iii) identify future development pressure points, and (iv) implement effective plans for regional development. In the same vein, LUC systems aim at addressing the following challenges:

- Interpretation and standardization of land classification data derived from different sources such as ground surveying, aerial photographs and satellite imaging
- Harmonization of varying definitions of land use categories and data collection methods by source agencies
- Incomplete data coverage, varying data age, and employment of incompatible classification systems, and
- Difficulties in aggregating available data because of the differing classification systems used.

A standard and consistent approach to land use classification at the national level is therefore likely to improve the quality of data collected and promote a framework for a harmonized approach leading to the development of a nationally complete and consistent land use information base. Standardization of land use classification provides a systematic basis of describing activities of land consuming actors and their competition for land now and in the future. Such a system is termed a Land-Use Classification Framework to reflect its inherent flexibility with regard to accommodating its own detailed classification and, at the same time, act as a common platform for standard nomenclature that sits above other more detailed classifications.

2. LITERATURE REVIEW

2.1 Distinction between Land Use and Land Cover
According to Leslie (2004), there is often confusion between land-use and land cover. For example, ‘land use’ and ‘land cover’ may be applied in the same context, perhaps because of the common use of remotely sensed satellite imagery or photography for mapping. The distinction between ‘land use’ and ‘land management practice’ is also not always well understood. For the purpose of this report, it is important to clarify the differences. For Thompson (1996), traditional classification systems dealing with land cover and/or land-use are limited in their capacity of storage of classes and often do not contain the whole variety of occurring land covers or land-uses.

One concept that has much merit is that land use refers to, "man's activities on land which are directly related to the land" (Clawson & Stewart, 1965). Land use can be considered to reflect the degree of human activities directly related to land and making use of its resources or having an impact (Young, 1994). LU is based on the functional dimension of land for different human purposes or economic activities (SEEA, 2003). It is therefore the purpose to which land is committed, including the production of goods (such as crops, timber and manufactures) and services (such as defence, recreation, bio-diversity and natural resources protection).

Two key aspects of Land Use are the products and benefits from use of the land and the operations applied to the land in order to produce these products and benefits. Land Use is difficult to “observe.” Field and ground information such as surveys and censuses are usually required. Land Cover on the hand reflects the observed bio-physical dimension of the earth’s surface (Di Gregorio & Jansen 1997, 1998) and corresponds in some degree to the notion of ecosystems. Such an observation can be made by the human eye, aerial photographs, satellite sensors, or simply existing maps. The definition embraces vegetation and man-made features and includes bare rocks, bare soils, and water areas. Concepts concerning land cover and land use are closely related and in many
cases have been used interchangeably. The purposes for which lands are being used commonly have associated types of cover, whether they are forest, agricultural, residential, or industrial. Thompson (1996:35) summarises the distinction between land cover and land use by indicating that land cover refers to all the natural and man-made features that cover the earth’s immediate material surface. However, land use refers to the human activity that is associated with a specific land unit, in terms of utilisation, impacts or management practices.

Confusion and ambiguity between these two terms lead to practical problems, particularly when land cover and land use data need to be matched, compared and/or combined (European Commission, 2000). Land use is also characterized by activities and inputs that people undertake in a certain land cover type to produce change or maintain it. Therefore, the definition of land use in this way establishes a direct link between land cover and the actions of people in their environment. There are some land uses, such as agriculture that have a characteristic land cover pattern. These usually appear in land cover classifications. Other land uses, such as business or commercial areas, are not readily characterized by a particular land cover pattern (DRDLR, 2009). Land use and land cover describe quite distinct dimensions of the land surface and should be separately defined and classified so as to prevent ambiguous interpretations (ODPM, 2006). For example, the singular task during development of the Britain’s New Land Use Database classification was to establish a clear separation between land use and land cover nomenclatures.

2.2 Current International Trends in Land Use Classification

Although an international LUC standard does not exist, there are several efforts at the international level to develop common LUC standards. These include initiatives by the European Union Statistical Office (EU-EUROSTAT), United Nations Economic Commission for Europe (UN-ECE), the World Bank, Food and Agriculture Organization (FAO), United National Environment Programme (UNEP), etc. In Africa, there have been several regional resolutions related to land use management, for example, the African Union (AU) resolution on land (grabs) and regional programmes – Sustainable Land Management (SLM) program – that are addressing issues of trans-boundary resource management, sustainability, social equity and inclusivity in land management.

Internationally, many countries are grappling with the challenge of creating a framework that can incorporate all the classifications that already exist in different sectors as well as the inconsistencies in land use categories and classification. The challenge is further exacerbated by dynamic processes of land transformation, for example, transition from public to private land, a shift from commercial to small-scale farming and the management of mineral wealth especially in many African countries. Some countries like the United Kingdom (UK) and Australia have made successful efforts at creating national land-use classification systems that are designed to serve as a standard platform by bodies involved in the routine collection of land use and land cover data. The efforts by FAO and EU have focused on the functional – especially socio-economic dimensions - of land-use. Recent literature (Verbug et al., 2009; Eva et al., 2000 and Lambin et al., 2001) bucks the trend towards linking land use classification to human actions and specifically, to the economic drivers behind these actions.

The classification approach where the socio-economic functional dimensions are used is closely related to human settlement principles which underscore the interdependence between the natural and human elements related to land. The Land Use Classification Standards (LUCS) model extends the notion of classifying land uses by refining traditional categories into multiple dimensions, such as activities, functions, building types, site development character, and ownership constraints. Each dimension has its own set of categories and subcategories. These multiple dimensions allow users to have precise control over land-use classifications.
The UK initiative (see Office of the Deputy Prime Minister: ODPM, 2006) has led to a land use classification tool for representing the multi-dimensional complexities of land-use to enable consistent identification, recording, comparison and reporting of land use and land cover. It provides a platform for detailed classification of land in its own right and also as a cross-referencing tool in the form of a standard nomenclature that sits above other more detailed classifications. The classification has already been adopted by a number of national projects e.g. Phase 1 of the local e-Gov Planning and Regulatory Services On-line (PARSOL). PARSOL has adopted the classification into its published schema for land use monitoring (PARSOL 2004). The ODPM has incorporated the land use nomenclature into the revised data collection tool distributed to all local authorities in England for collecting information on previously-developed sites available for development. A number of national classification schemes in North America and Europe have also incorporated a multidimensional approach to land-based classification (APA, 1999; Eurostat, 2001). The key value of this approach is that (i) it is capable of supporting the requirements of different users (ii) analytical relationships between dimensions can help identify process change, and (iii) it offers the potential to harmonize different land use classification schemes.

2.3 Normative Principles Guiding Land Use Classification

Decisions on how land is used are part of the evolution of human society. In general, land use changes and classification systems are the result of many separate decisions taken by individuals. Due to dynamism associated with land use, its classification also needs to be amenable to changes, without losing objectivity. Land use classification systems should aim at factoring and articulating the drivers of current land use and the current and future capabilities. Forecasting current and future capabilities provides policy makers with knowledge on how to influence the key drivers and trends towards desired normative outcomes. Certain principles are fundamental to the approach and methods employed in land use classification systems. These are as follows:

- Land is classified with respect to suitability of use for specified purposes: This principle embodies recognition of the fact that different kinds of land use have different requirements. As an example, an alluvial flood plain with impeded drainage might be highly suitable for rice cultivation but not suitable for many forms of agriculture or for residential or industrial development.
- That classification should be designed to promote particular uses in appropriate locations, to reduce conflict of uses and to protect resources both natural and human-made. Where appropriate, classifications should be used as a tool for shaping the country and not solely reflect existing land uses.
- That land use classification should be able to guide development in established areas and to promote the redevelopment of underutilized lands.
- Land use classification should help preserve the natural, historic, recreational and scenic values, along with the healthy economy of the land resource so as to ensure that development in those areas is in conformance with the natural beauty and environmental limitations, and
- Classification should promote the philosophy that land is a finite resource and not a commodity, that all citizens are stewards of the land, and that the use and quality of the land are of prime importance to each present and future citizen as well as to the neighbourhood, the Country and indeed, the World.

A multidisciplinary approach is required in the design of a land-use system: The classification process requires contributions from the fields of natural science, the technology of land use, economics and sociology. It follows that a team carrying out an evaluation require a wide range of specialists.
2.4 Attributes of a Good Land Use Classification System

From the foregoing analysis, it is clear that a good land use classification system should be capable of:

- Meeting the needs of a variety of users (neither single-project oriented nor taking a sectoral approach)
- Facilitating comparisons between classes derived from different classifications
- Describing the complete range of features with clear class boundary definitions that are unambiguous and unique
- Being adaptable to fully describe variation with the minimal set of classifiers necessary (the less classifiers used in the definition, the less the error expected and the less time and resources necessary for field validation)
- Being repeatable or repetitive results should be obtainable from one interpreter to another and from one time to another
- Being neutral in regard to data collection method – it should be independent of the means used to collect information, whether satellite imagery, aerial photography, field survey or some combination of the methods is used
- Being applied over extensive areas
- Aggregating categories
- Being compared with future land use data, and
- Recognizing multiple criteria of uses and classification of land when needed.

3. PROJECT OBJECTIVES

Through DRDLR, South Africa aims to establish a national system for naming and defining groups of land use and land cover features. The first step of the process was to develop a clear view of the principles, concepts and values that should underpin the NLUC. In particular, it is recognized that in a pluralistic and diverse society such as South Africa, developing and implementing a standard NLUC system can be a hotly contested process. Indeed there may be no one ideal or universal NLUC, and therefore, consultations with as wide a spectrum of stakeholders has been one of the key hallmarks of the project. The objectives of the project were to:

- Set out the key concepts and values that will guide the proposed NLUC
- Review of international and regional trends, principles and practices underlying LUC
- Review of the institutional arrangements for Land Use in South Africa, and
- Assess the role of Information and Communication Technologies (ICTs) and the use of Land Use Meta Language (LUML) to support LUC.

4. APPROACH AND METHODOLOGY

The process of developing South Africa’s Land Use Classification system started in 2012, but accelerated in 2013 and 2014. So far the process has used the following methodologies:

-primary and Secondary Data Collection

An extensive review of primary and secondary data has been undertaken, drawing from local, national and international literature. The findings of these data sources underwent validation and review through key stakeholder working groups, key informant interviews as well as reference national group workshops. The stakeholder engagement plan consisted largely of a three-pronged approach including:
- Domain experts from universities and research/knowledge-based institutions such as the CSIR and DBSA
- Practitioners from metros (urban) and district municipalities (rural)
- Practitioners from largely urban provinces and those from predominantly rural provinces
- Practitioners hailing from the premier’s office (which is responsible for provincial growth and development strategies and provincial spatial development frameworks)
- Practitioners representing state-owned enterprises such as Eskom and Transnet, and
- Continuous discussion with a cross-section of stakeholders, right up to the end of the project.

Figure 1 presents the stakeholder consultation groups.

![NLUC Framework](image)

5. RESEARCH ANALYSIS AND FINDINGS

**Need for Standard Land Use Classification**
International evidence shows that many countries have the same concerns as South Africa in regard to absence of a harmonized land use classification system. Typically, public and private agencies collect independent data about land, but for the most part without coordination or a guiding framework. Too often this has meant duplication of effort, or it has been found that data collected for a specific purpose were of little or no value for a similar purpose only a short time later.

Standardization of land use classification provides a systematic basis of describing activities of land consuming actors and their competition for land now and in the future and various settings whether urban or rural.

Experience from developed and developing countries point to three key challenges that often hinder the development of harmonized national land use classification system. These are: (a) lack of National Spatial Strategy (NSS) to guide land use planning and hence lack of a coordinated national
reference point (b) inadequate resources – financial, human and technology, and (c) lack of land use classification data especially at sub-national levels.

South Africa is fortunate not to be unduly constrained by many of these challenges. SPLUMA (2013) provides an important policy instrument for driving South Africa’s overall spatial development agenda. There already is a good foundation for generating land use information through various processes like SDIs and IDPs. There are also some pockets of good practices on land-use planning in provinces such as KwaZulu-Natal where the provincial planning commission has undertaken a significant amount of work on procedures for land use management systems within traditional authorities. Municipal areas in North West Province like Rustenburg have also done some good work in ensuring a consistent land use management scheme throughout the municipal area. What this means is that some key elements in respect of the development of a harmonized LUC framework are already in place.

Legal and Legislative Framework for Land Use Management

**National Legislation**

A palpable factor when examining land management in South Africa is the confounding labyrinth of land use management and planning legislation. At the national level, there is a wide array of policy regimes that have come into existence over the last 14 years. These include the tenets of the Constitution and its requirements and obligations regarding housing, land, property, and the principles of social justice; the Development Facilitation Act of 1995; the Housing Act (1997); Housing Code (2004); the Municipal Systems Act (2000); the various shades of papers from Green to White of Development and Spatial Planning (2001); and the Spatial Planning & Land Use Management Act (2013). Each one of them purports the noblest of intentions: to create spatial plans that redress the imbalances underwritten by apartheid’s segregated planning ideals, and reconstruct cities (spaces) of integration and equal socio-economic opportunity (Ovens, et al, 2007).

The primary legal framework within which planning is practised in South Africa is as follows:

- **Constitution of Republic of South Africa, No 108 of 1996** – assigns the responsibility of planning to municipalities as one of their primary roles.
- **Municipal Systems Act, No 32 of 2000** – sets out in Chapter 2 the requirement, amongst other, for newly elected municipal councils to prepare and adopt an Integrated Development Plan (IDP) for their respective areas and to provide for annual revision thereof. The Act based its principles pertaining to integrated development on the Development Principles of the Development Facilitation Act (1995). The Municipal Systems Act describes Integrated Development Planning in Chapter 5. The IDP, in turn, is required in terms of the act, to include a Spatial Development Framework (SDF), which must include the provision of basic guidelines for a land use system for the municipality.
- **The Subdivision of Agricultural Land Act (1970)** (Act No. 70 of 1970) regulates and controls the subdivision of agricultural land including change of use of such said land and how to handle an application for a scheme relating to an agricultural land. Critics have pointed out the unintentional urban bias displayed in using the term "sectoral laws planning" legislation which conventionally looks at the urban component of land use whereas National Environment Management Act (NEMA) considers all components of land. This further supports provisions in Act 70 of 1970 as well as supporting the provisions of the Conservation of Agricultural Resources Act which considers the agricultural component of land use.
• Development Facilitation Act (DFA) (Act No. 67 of 1995) – this Act was originally envisaged as interim legislation and implemented post-1994 national elections. It was promulgated to facilitate accelerated housing delivery by waiving other legislation and giving decision making to provincial Development Tribunals (where established). Sections of this legislation have been declared unconstitutional by the Constitutional Court as it takes over the decision making powers of municipalities and was to be repealed or amended by June 2012. Despite sections of the Act being declared unconstitutional by the court, its General Principles for Land Development, as contained in Section 3 of Chapter 1, are still deemed valid as normative planning guidelines.

• Less Formal Township Establishment Act (Act No. 113 of 1991) – this act provides for shortened procedures for the establishment of townships, for less formal forms of residential settlement. Conditions under which townships were established included land use management in the form of allocated uses but also permit the incorporation of the established township area into the prevailing municipal scheme. This often did not happen due to conflicting and parallel controls.

• Spatial Planning and Land Use Management Act (SPLUMA) (Act 16 of 2013 –while the Act was assented to by the President of the Republic of South Africa on 5 August 2013, it will come into operation on a date fixed by the President by proclamation in the Government Gazette. SPLUMA is a framework act for all spatial planning and land use management legislation in South Africa. It seeks to promote consistency and uniformity in procedures and decision-making in this field. The other objects include addressing historical spatial imbalances and the integration of the principles of sustainable development into land use and planning regulatory tools and legislative instruments.

Provincial Planning and Development Laws
Planning Acts and Ordinances used in the provinces include the following:

• Free State – Townships Ordinance No 9 of 1969
• Eastern Cape – Cape Land Use Planning Ordinance No 15 of 1985
• North West – Cape Land Use Planning Ordinance No 15 of 1985
• Western Cape – Cape Land Use Planning Ordinance No 15 of 1985
• Gauteng – Transvaal Town Planning and Townships Ordinance No 15 of 1986 and Gauteng Planning and Development Act 3 of 2003 although without Regulations.
• Limpopo – Transvaal Town Planning and Townships Ordinance No 15 of 1986
• Mpumalanga – Transvaal Town Planning and Townships Ordinance No 15 of 1986
• Northern Cape – Northern Cape Planning and Development Act No 7 of 1998.

It is of interest to note that many provinces have been reformulating their planning and development laws in an attempt to create legal uniformity and to redress the apartheid legal and administrative chaos. KwaZulu-Natal, the Western Cape and the Northern Cape have passed new laws, and Gauteng is near to passing one as well.

In all four cases, the paradigm ushered in by the Development Facilitation Act, 1995, of normatively-based legislation has been followed with some provincial differences. The other provinces are all intending to follow suit. The problem with the provincially led law reform process is that each province is pursuing its processes independently of the others, and in the absence of national guidelines other than the DFA in its current form, certain gaps and inconsistencies are inevitably creeping in.
Sectoral Laws
In addition, a number of new laws with significant direct and indirect impacts for spatial planning and land use management such as the Local Government Transition Act, the National Environmental and Management Act, the Housing Act, the Water Services Act and the regulations passed in terms of the Environmental Conservation Act, have been enacted that superimpose a powerful set of procedural obligations on other spheres of government, especially local government (Green Paper on Planning and Development , 1999). The interrelations in respect of development management are thus evident in the range of departments involved.

Institutional Framework for Land Use Management
Land use management in South Africa has its origins in British town planning activities which developed in response to the industrial revolution. The activities were aimed at improving health and safety of urban residents which were adversely affected by overcrowding, pollution, inadequate services, facilities and amenities.

Based on that, the approach to land use management in South Africa is largely regulation orientated, aimed at controlling impacts and consequences of activities perceived to be negative. Newer ideas in land use management also place emphasis on promoting desirable development outcomes. This latter type of land use management is more in line with an incentive-based approach aimed at encouraging and shaping development in the urban areas. SPLUMA objects relate to addressing the urban bias perpetuated by previous land use management systems through incorporating a rural land use management system so that there is a balanced and unified national land use management system that is all inclusive.

Role Players in Land Use Management
Various role-players and users of land use management are to be found in South Africa. There is a strong relationship between the role-players in land use management and the legislation that prescribes and manages land use management. This section profiles the various role-players involved and associated with land use management in South Africa.

Municipality as a player in land use management
Municipalities are constitutionally empowered to adopt municipal bylaws with regard to municipal planning. National and provincial laws regulating municipal planning must thus be predicated on the assumption that municipalities will receive, consider and approve land use applications in terms of their own bylaws. In many instances, this will not be practical because not all municipalities are ready to adopt municipal bylaws. Again, this does not mean that provincial government must deal with all planning issues in detail but should rather prompt provincial governments to support municipalities adequately by promulgating model bylaws, or by adopting default provincial legislation that may be replaced by municipalities as and when they are ready.

The combination of the above means that the national planning law should include both default provincial laws as well as model bylaws or default municipal bylaws.

The courts have provided guidance on the meaning of the term municipal planning. The definition of municipal planning must be consistent with the Constitutional Court’s ruling in the DFA judgment. The court stated that municipal planning includes “the control and regulation of land use” and concluded that re-zoning and township establishment are part of municipal planning. It is probably safe to say that the instrument of subdivision is included in the court’s use of the term township establishment.
Property Owners and Developers (Municipal Valuers)
The Constitution of South Africa also entitles municipalities to impose rates on property in their areas of jurisdiction subject to regulations in terms of national legislation. The Constitution further embraces local government to be developmental in nature, in addressing the service delivery priorities of the country and promoting the economic and financial viability of the municipalities. Therefore income generated from property rates is a crucial source of revenue to achieve the constitutional objectives especially in areas which have been neglected in the past due to discriminatory legislation and regulations. The Municipal Property Rates Act (Act 6 of 2004) provides the mechanism for a municipality to determine its Property Rates Policy.

Property rates policies determine criteria for levying rates according to the Act. The criteria include the actual use of the property, permitted use of the property and the geographical area in which the property is situated in. In addition to the above criteria further categories (or land use classification) is also determined which in principle relates to the use of the land and can be related to, but is not the same as, land use classifications for the purposes of land use management. Examples include residential, business and commercial properties.

Government Departments
National Department of Agriculture – the national Department requires land use information which relates to the detail of the agricultural activity on a property based on the soil potential, crop or field cultivation, veld type for livestock carrying capacity, etc. From a planning point of view this Department also deals with the subdivision of agricultural land and provides comments in respect of Greenfield Development in the form of township development applications. Agricultural land is a key rural resource and the Department evaluates development and subdivision based on a value attached to the agricultural land – the potential that can be exploited thereon. The same data is used to determine the percentage of land that is used for cultivation of a crop on a national level.

Statistics South Africa – the Department uses land classification information to gather statistical data related to international Standard Industrial Classification (SIC), which is an important part of business information database.

Provincial Departments
Provincial departments dealing with the environment and agriculture use the land use management information in evaluating projects, programmes and developments to determine the impact on agricultural resources, the environment etc. Other Departments, such as Education and Social Development and Welfare, can be indirectly involved and use land use management or require land use information to provide services which are based on thresholds of population size, travel distance, locality to name but a few.

State Owned Enterprises
State Owned Enterprises (SOEs) such as including Eskom, Telkom, Sanral and Transnet do not generate land use information but use and require land use data for capacity and expansion planning, infrastructure upgrading and servitudes for specific services.

Bio-diversity
The land cover datasets produced by South African national Biodiversity Institute (SANBI) and Ezemvelo KZN Wildlife (EKZNW) are conventionally the default dataset used as these are the only role-players who consistently produce land cover datasets with significant improvements in each iteration.
Review of Land Use Data Management Systems in South Africa

The use of land in South Africa is managed at a municipal level by means of Land Use Schemes (LUS) and legislation compels local authorities to prepare a town planning scheme of all or any land situated within its area of jurisdiction. Municipalities require land use information on two levels:

- Detailed land use information per stand is required to update the respective municipality’s Land Use Schemes, and
- Regional level land use information is important for strategic planning programmes such as Spatial Development Frameworks (DRDLR, 2009).

Each of South Africa’s 257 municipalities therefore needs detailed land use information on a regular basis to support its LUMS, SDFs and IDPs. Such information could be generated by way of a land use audit, which refers to a comprehensive assessment and evaluation and classification of all land in a defined boundary covering land that is owned by the state and private sector (individual or companies), registered and non-registered (i.e. titled and non-titled) land by size in terms of area, cadastral property boundary, land use, activity, type of occupants and indication the users of the land. However, the type, quality, coverage and currency of data, varies from one source institution to another, depending on purposes for which it was collected. Local planning agencies make use of detailed information generated during ground surveys involving enumeration and observation. Interpretation of large-scale aerial photographs also has been used widely. In some cases, supplementary information is inferred on the basis of utility inspection maps, building permits, and similar information. Major problems are present in the application and interpretation of the existing data. These include changes in definitions of categories and data collection methods by source agencies, incomplete data coverage, varying data age, and employment of incompatible classification systems. In addition, it is nearly impossible to aggregate the available data because of the differing classification systems used.

The Chief Directorate National Geo-spatial Information (CD: NGI) undertook land cover and land use mapping on a national scale. In 2009, the CD: NGI designed a land use classification system based on international research and consultation with the GIS and planning community. In this study relating to the development of a methodology for a national land use mapping, the CD: NGI described various existing datasets that could contribute toward a national land use dataset. These include the national land cover mapping programme, StatsSA’s sub-places and dwelling frame, ESKOM’s SPOT Building Count (2006/2007), ENPAT (Excluding Gauteng), the Agricultural Research Council’s land capability data and DAFF’s field crop boundaries. All of these existing processes were seen to complement and contribute toward land use data. Through this consultative process, they have developed a classification system that describes 14 main land use classes, 61 secondary classes and tertiary land uses. The CD: NGI emphasised through their work that their priority was to align main and secondary classes to available datasets that can be used for national mapping purposes. However, a unique symbology was not developed during the 2009 study.

It is generally accepted that land use mapping, symbology development and reporting is the final step in the complex process of developing a land use management system. The land use map is a key decision support tool and its value cannot be underestimated especially when using digital mapping (GIS) technologies. South Africa, with its political history, linguistic diversity and current local authority structure contributes to a very complex land use pattern which further necessitates a harmonised national land use classification system in which land use datasets, mapping methodologies and reporting guidelines are the cornerstones.
Scope the Application of ICT tools in Land-use Data Management Systems

Absence of a uniform mechanism for data collection is not limited to the land use management sector. It is pervasive in many other sectors at the provincial and local governments. The South African government has already achieved reasonably effective, though not perfect, standardization in some instances, as evidenced by present programs in soil surveys, topographic mapping, collection of weather information, and inventory of forest resources. Recent developments in data processing and remote sensing technology make the need for similar cooperation in land use inventories more pressing.

One example of current technology in South Africa includes SPISYS, an initiative of CD: SPI in the Free State and Northern Cape provinces. SPISYS is an online spatial planning technology that aims to share spatial information in real-time and facilitate the translation of land use classes from one classification to another in an environment of limited planning capacity at a national, provincial and municipal level. A key challenge is to get owners/users of existing classifications to transit to a new national classification system. While this can be addressed over time through stakeholder processes, incentive mechanisms and legislative frameworks, it is important to explore in greater detail the feasibility of “translating” existing classification datasets through the use of Land Cover Classification System (LCCS) or Land Cover Meta Language (LUML) as it is now more commonly known.

In this regard, a lead agency for ICT-enabled land use classification/reporting and the mapping/symbology methodology should be defined at a national level. This, for example, could be located at the CD: SPI. In addition, an ICT-led mapping procedure should be initiated. The core functions would include:

- Identification of the core datasets for land use mapping and their related data custodians
- Collect existing core datasets (e.g. cadastre)
- Collect existing auxiliary data
- Carry out a data gap analysis and implement a strategy to fill these data gaps
- Capture metadata for each municipal land use map planned
- Ensure all maps include data quality statements and most importantly Metadata
- Ensure comprehensive data capture at the smallest spatial level and aggregation to a national scale
- Maintain and update the land use classification, mapping procedures, symbology sets, custodianship, etc., and
- Package land use maps in appropriate reporting mediums with a view to eloquently communicating the message to decision makers and the broader planning fraternity.

Use of Meta-Language in Land Use Data Management in South Africa

A classification process aims at structuring a specific knowledge domain in order to create consistency and stability in communication between individuals. It is a way of creating order and stability for knowledge communication. The objective of using Land Use Meta Language (LUML) is to establish a set of definitions that enable elements of land use classes to be translated into a common denominator so that different land use classification systems can be harmonized and aligned. This ensures interoperability of the land use classification system and facilitates sharing of information in a coherent and consistent way.

The concept stems from the inability to amalgamate the different international land cover classifications because they were developed from such different philosophical foundations. LUML
is characterized by rigorous definitions of land use classes and categories. However, the criteria used to place a land use in a class or category must be simple enough to ensure its operability. This can be facilitated through the use of appropriate technologies that will allow the alignment of land use classes from one classification to another. LUML focuses primarily on the common elements that make up different land use classes. This can be equated to the periodic table of chemical elements. A set of rules define what elements make up a land use class. By knowing the elements, land use classes from different classifications can be aligned.

**Principles underlying LUML**

Development of a LUML is based on the following practical considerations:

- Multiple ways of conceptualizing and communicating land use
- Need to create consistency and stability
- Need to facilitate effective communication
- Dynamic process where definitions of land use will change over time, and
- Land use classifications never fully reflect the reality of the “real-world”.

In INSPIRE’s land use data specification, it identifies key principles in developing a land use classification system and these are:

- Completeness – it must cover the entire area of interest and all land use types
- Absence of overlap – land use definitions/descriptions should be unique, ensuring that there are no overlaps
- Dominance – the dominant or main land uses need to be defined
- Independency of scale and data collection tools – it must be possible to obtain data from different sources and at different scales
- Strict logic – need for strict logic in terms of defining land use classes
- Time independency – the land use classification should be applicable for existing and planned land uses both now and in the future, and
- Repeatability – the land use classification must be easy to use and be applied elsewhere.

LUML is an attempt to classify land use features with very simple groups of elements arranged in different ways that act as building blocks to describe the more complex semantic in any separate application ontology (legends). LUML should be able to work as "boundary object" to mediate and support negotiations of different ways to represent land use around which similarities and differences can be understood and expressed. This means that classes derived by LUML can be customized to user requirements but must have common identities between users. The most distinctive theoretical characteristics of LUML include:

- Essential elements of the language allowing balance between the goals of a global standardization of terms with the need for enough detail to ensure practical applicability. In other words, the ‘elements’ must be the as much as possible limited in number, representing very well accepted terms and being able to represent also very distinctive land cover situations.
- Reduction as much as possible of complex descriptions and definitions, and
- Fundamental idea of the language is that a predefined set of land use basic elements (called Basic Objects) enriched on their semantic significance with external qualities
and attributes and arranged in different types of strata can be used to describe a wide
variety of distinctive and detailed land cover situations.

Given that South Africa’s Town Planning systems are yet to reach efficient levels of
management, LUML represents a significant opportunity to develop efficient land use
classification systems. For example, the tool could harmonise varied land use definitions
found in Town Planning Schemes. Thus such tools could be crucial to the management of
urban and rural processes of interdependency and population migration phenomena which
are related to urbanisation.

Capacity Building for Land Use Information Management
To implement the national classification system and use it to create a land use database, and then
maintain it, can be a serious challenge for most municipalities. The following are some of issues
that stand in the way of effective development of datasets at a municipal level:

• Access to GIS software and adequately skilled staff to use the software
• Availability of an up-to-date municipal cadastral dataset, and
• Availability of trained fieldworkers.

Clearly, there is a need to generate detailed guidelines to assist municipal (and other) officials in
the implementation and use of a land use classification system. Other important points include:

• Recognized classifications system could lead to greater collaboration between various
departments within municipalities (e.g. valuations and town planning using the same
definitions), and
• Smaller municipalities could benefit from lessons learnt by metros and municipalities with better
capacity and the possibility of twinning arrangements between less and better capacitiated
municipalities should be considered. A situational analysis to determine and define the depth of
the problems being faced by smaller municipalities may be required that will inform areas to be
addressed and a way forward in solving the problems they are facing.

Towards a Standardised Classification System
As indicated elsewhere in this paper, different classifications have been developed with different
philosophical principles in mind and because of the inherent costs and time implications, the
transition into a standardised classification system will need to be gradual, based on compelling
policy argument and supported by visible political processes. In this regard, significant LUC
initiatives are being undertaken by numerous agencies in the country at a national, provincial and
municipal level on components of the land use management system, for example:

• SPLUMA provides definitions of key concepts such as “land use” and “land use management
system”. It lists 15 major land use purposes that can be used in areas not currently governed by
a land use scheme, namely, agricultural, business, commercial, community, conservation,
educational purposes; government purposes; industrial purposes; institutional purposes;
mining, public, recreational, residential, transport and any other purpose as may be prescribed.
• DRDLR: CD: NGI: CD: NGI created a land use classification system in 2009 with the main aim
of supporting the Chief Directorate in its endeavours to roll out land use mapping for South
Africa. An important part of the classification was therefore to align a land use class with a
specific source of spatial data that could be used to map this land use class. The classification
system consisted of 14 main classes, 61 secondary classes and 464 tertiary classes. It must be
noted that currently, mapping is being done at the secondary class level for pilot municipalities by CD: NGI.

- **National Environmental Management: Protected Areas Act (NEMPA) (Act 57 of 2003):** The Act contains an existing classification. The categories are also consistent with UNESCO’s Man and the Biosphere (MAB) programme. The classification contains 6 main classes and 41 sub-classes

- **Northern Cape – Spatial Planning Categories:** The Northern Cape Province developed Spatial Planning Categories (SPCs) as part of their provincial SDF. These SPCs are generally consistent with UNESCO’s MAB Programme and include all land zonings that are provided for under the existing Zoning Scheme Regulations. The designation of SPCs does not change existing zoning or land-use regulations or legislation. SPCs merely help to clarify and facilitate coherent decision-making that can lead to better zonation, laws and regulations. The SPCs, furthermore, provide a framework in terms of which land-use decisions can be standardised throughout the province. The Northern Cape SDF furthermore proposes that the SPCs be applied for land-use classification at all levels of planning in the Northern Cape (referring specifically to the preparation of IDPs, SDFs and SDPs). The province is also in the process of developing draft regulations that are meant to accompany the SPLUMA once enacted. For this purpose they relied on the Spatial Planning Categories from the SDF.

- **KwaZulu-Natal Guidelines for Land Use Municipal Schemes:** The translation of the SDF land use areas into a Land Use Management Framework (LUMF) or other linking plans usually requires the expansion of basic land uses into a series of broad ‘generic’ land use areas/typologies, as is appropriate for each particular municipality. The formulation of the zones for a Scheme requires that these broad land use areas/typologies are translated into one or more variant zones. The guidelines identified 11 “Parent Land Use Categories”, 33 “Generic land use types” and 72 “Detailed variations of the Generic Type” – intended as “zonings”.

- **Spatial Planning and Information System (SPISys):** SPISYS is a Geographical Information System (GIS) that provides users with up-to-date data in an interactive environment via the Internet. SPISYS does not look at land uses but rather data sets, it identified 23 main classes (service types), approximately 170 secondary classes (source groups) and approximately 720 detailed “sources”.

- **Standard Industrial Classification (SIC):** SIC Codes are an internationally accepted set of codes for the standard classification of all economic activities. These codes are prescribed by the Department of International Economic and Social Affairs of the United Nations. SIC Codes were designed for the classification of establishments according to the kind of economic activity. They provide a standardised framework for the collection, tabulation, analysis and presentation of statistical data on establishments. Stats SA recommends that public and private institutions, as well as private persons, engaged in the classification of establishments as statistical units, use the SIC Codes as far as possible. The general application of the principles and definitions of the SIC Codes will promote the uniformity and comparability of statistics compiled from different sources.

SIC Codes have the following 10 major divisions:

- Agriculture, hunting, forestry and fishing
- Mining and quarrying
- Manufacturing
- Electricity, gas and water supply
- Construction
- Wholesale and retail trade; repair of motor vehicles, motor cycles and personal and household goods; hotels and restaurants
- Transport, storage and communication
Financial intermediation, insurance, real estate and business services
Community, social and personal services, and
Private household extraterritorial organisations, representatives of foreign governments and other activities not adequately defined.

The need to build on these existing initiatives cannot be over-emphasized. Thus, harnessed together as part of a national programme, these initiatives should provide a springboard for the development of a standardised land use classification framework. The process needs to start with the development and widespread acceptance of a flexible and user friendly land use classification system. A key challenge is to get owners/users of existing classifications to transit to a new national classification system. While this can be addressed over time through stakeholder processes, incentive mechanisms and legislative frameworks, it is important to explore in greater detail the feasibility of “translating” existing classification datasets through LUML.

Transition to a standardized classification system
Land-use management practices internationally recognize there is no one ideal classification of land use and land cover, and it is unlikely that one could ever be developed. There are different perspectives on how land use should be classified. The classification process itself tends to be subjective, even when an objective numerical approach is used. There is in fact, no logical reason to expect that one detailed inventory of land use should be adequate for more than a short period of time, since land use and land cover patterns change very rapidly in keeping with various demands. The different classifications in use in South Africa have been developed from different user demands and with different philosophical principles in mind. Given the uneven and inconsistent array of regulations and laws dealing with land use management, the debate is whether a single land use classification and management should apply throughout South Africa. The issue is confounded by the entrenched historical context within which land use management takes place, against the imperative to effect the socio-economic changes that are envisaged by the constitution and various national policy documents. There is also a manifestly huge gap between the national strategic vision and the actual conditions on the ground which is exacerbated by planning processes, legislation and capacities that are not synchronised to strategic national policies such as the National Development Plan (NDP), and New Growth Path (NGP) and SPLUMA. These are issues that need to be supported through the envisaged framework. The work towards development of a national land use classification system is firmly anchored within the principles of SPLUMA. SPLUMA through its objectives clearly indicates that a framework for spatial development planning and land use management is required and what specifically needs to be accomplished. This includes:

- Establishment of a uniform, recognisable and comprehensive system of spatial planning and land use management across South Africa to maintain economic unity, equal opportunity and equal access to government services
- Development and institutionalization of a system of spatial planning and land use management that promotes socio-economic inclusion
- Development of principles, policies, directives and national norms and standards that anchor the achievement of urban, rural, municipal, provincial, regional and national development goals and objectives through spatial planning and land use management, and
- Development of procedures and institutions to facilitate and promote cooperative government and intergovernmental relations in respect of spatial development planning and land use management systems.
The principles set the backdrop of specific issues to be aligned and addressed within land use management at local authority level. Adhering to the principles will achieve a land use management system that is conducive to planning and achievement of development outcomes that are proclaimed in various national policy documents.

As previously discussed, there are many other legal frameworks in existence at the national and provincial levels that inform the development of a land use classification system. The essence of the framework is therefore to take into account this plurality of systems and provide a flexible, but yet well-structured system within which the disparate land classification systems can be linked for uniformity of interpretation and comparability. LUML provides a recognized platform that allows interoperability of different classification systems. The argument is made here that while such a technological solution needs to be resourced financially and in human capacity terms, this is not the biggest challenge in developing a framework.

With the legal foundations for development of a standardised land-use classification in place through SPLUMA, the next step involves the development of a core institutional mechanism with the mandate to drive the process. The mechanism requires dedicated financial, human resource and political support to steer the transition into a system that is accepted by the widest range of stakeholders. The framework should be sensitive in regard to the value attached to existing systems, and the necessity to negotiate, plan and implement changes together with key stakeholders. The functions of such an institutional mechanism include:

- Ensuring consultative processes and communication from national departments to provincial governments
- Promoting buy-in of key role-players on the need for a harmonised land use management system. This would guide provincial governments in establishing their own provincial planning frameworks within the bounds of national standards and with exceptions for land use matters that affect the national interest
- Assist municipalities with alignment in terms of the implementation of a uniform land use management system, and
- Acknowledgement and understanding of the interrelationships among all spheres of government related to land use management and development.

**Capacity challenges**

There is a lack of capacity within municipalities to actually cope with land management systems. The lack of capacity occurs in two forms:

- The first is the shortage of people with appropriate qualifications in land management to deal with the current demand. Those who are professionally qualified are often shuffled to other positions, leaving the least qualified to deal with complex policy and technical requirements for which they have neither the training nor the skill (Berrisford, 2006), and
- The second aspect is the inability of those in the planning departments to have the time to access the newer legislation and to be trained in its application and implementation. Such training or support is frequently either unavailable or literally inaccessible to planners and land management professionals in smaller municipalities.

SPLUMA addresses these issues in terms of the concept of Municipal Differentiation whereby national and provincial government need to take cognisance of unique circumstances of each municipal area which relate to capacity, financial resources and financial viability of the municipality.
6. RESEARCH CONTRIBUTION

The research confirms the realisation that there is no one ideal classification of land use and land cover, and it is unlikely that one could ever be developed. There are different perspectives in the classification process, and the process itself tends to be subjective, even when an objective numerical approach is used. There is, in fact, no logical reason to expect that one detailed inventory should be adequate for more than a short period of time, since land use and land cover patterns change very rapidly in keeping with various demands overtime.

The land use classification framework in South Africa needs to link into existing classifications for land use, land cover, topography, and development potential indicated in Spatial Development Frameworks (SDF), environmental management, property valuations and land use schemes. Thus, a methodology will be required that ensures flexibility in integrating these land use classifications into a national standard. To enable the harmonization, alignment and synchronization of the different classification systems, Land Use Meta-Language (LUML) is recommended. The objective of using Land Use Meta-Language (LUML) is to establish a mechanism that enables different elements of land use classes to be translated into a common denominator that can be harmonized, aligned and synchronized.

By using a LUML there are opportunities to move away from the vagueness of how one classification aligns with another. LUML formalizes the structures and the rules of how land uses from one classification can be aligned to another to interoperability.

The research has shown that transition to Standardised LUC system will not be achieved overnight. A strategy for capacity building through internships, on job training programmes, appropriation of international best practice, exchange programmes and networking is recommended. More fundamentally, and for long term establishment of requisite capacity, support to curriculum development in the various fields of land-use planning and management are recommended. The proposed NLUC framework needs to subscribe to the following principles (paraphrased in Figure 2 below), namely: be holistic; be broad based; be pluralistic; flexible; inclusive, holistic, foster continuous progress, and last but not least, be work in progress. These principles also necessarily constitute its key success factors.

Figure 2: Nature of proposed NLUC framework
7. CONCLUDING REMARKS

While some of the key building blocks towards the development of a harmonized Land Use Classification Framework are already in place, the need for a concerted stakeholder-driven effort to draw these and other elements together into a cohesive and robust framework cannot be over-emphasized. Key supportive pillars of an LUC framework are:

- A dedicated, well-resourced and politically supported entity to coordinate and drive the technical, legal and political dimensions of the process; and
- A legal or a policy framework such as SPLUMA, and
- Technical capabilities from a wide range of disciplines.

8. RESEARCH LIMITATIONS

While Land Use Meta Language (LUML) was identified as pivotal to inter-operability of various classes and subclasses, its full development was outside the purview of this current assignment. However, it was considered pivotal to confirm and highlight its importance and unpack its constituent elements with a view to making an educated opinion as to whether DRDLR should embark on a journey to develop its own LUML.

9. FURTHER RESEARCH

Capacity Building and Curriculum Development

A standardised land-use classification needs to be supported through capacity building and mainstreaming in education curricula. The KwaZulu-Natal guidelines also emphasize that politicians, decision makers and communities need to be educated about the land use management processes. This is seen as a role of CD: SPI at a national and provincial level as they have the mandated responsibility to provide support to the different spheres of government. It is also necessary to look at the development of institutional capacity to ensure that the necessary training programmes can be developed and rolled out. Part of capacity development is doing a full review of the planning and GIS capacity at a municipal level. CD: SPI also has a responsibility to develop norms and standards in terms of the staffing, training, support, equipment, research and financial requirements to implement land use management systems in the country. They also have a responsibility to provide additional capacity to provinces and municipalities where needed in the implementation of land use management systems.

A situational analysis to determine and define the depth of the problems being faced by smaller municipalities may be required that will inform areas to be addressed and a way forward in solving the problems they are facing.

10. ACKNOWLEDGEMENTS

The Authors wish to acknowledge DRDLR officials, Provincial, District and Local Municipal Officials, academics, consultants and practitioners who participated throughout the execution of the project work which has culminated in the production of this article.

11. REFERENCES


FAO, (2009). LCCS 3 - Land Cover Classification System v. 3 (or Land Cover Meta Language) design


Lambin, E.F.; Turner, B.L.; Geist, H.J.; Agbola, S.B.; Angelsen, A.; Bruce, J.W.; Coomes, O.T.; Dirzo, R.; Fischer, G.; and Folke, C.(2001). The causes of land-use and land-cover change: Moving beyond the myths. Glob. Environ. Change. Vol 11, 261–269.


Ovens, K., Kitchin, F., Parnell, s. and Williams, A (2007) Land Management and Democratic Governance in Five South African Metropolitan Areas: Overview Report, Commissioned by Urban Landmark, Planact and CUBES, with Ford Foundation Funding


Are We Parked, Giving Way or Negotiating the Curve of Rural Development: Implications of the State of Rural Transport Research in South Africa for Planning, Policy and Development Choices

James Chakwizira 1, Peter Bikam, Mac Mashiri

Head of Department
Urban and Regional Planning, School of Environmental Sciences, University of Venda
Private Bag X5050, Thohoyandou, 0950, South Africa
Tel: +27 (0) 76 387 7814- Number / Fax: +27 (0)15 962 8587
1 james.chakwizira@univen.ac.za ; jameschakwizira@gmail.com

Abstract

This paper explores the state of current rural transport research trajectory in South Africa. Making use of the gap analysis technique, the impact of the planning, policy and development choices are evaluated. The central question which this paper grapples with relates to whether as a nation, South Africa is currently “parked, giving way or negotiating the curve of rural transport research development”. This paper therefore analyses recent research in rural transport in South Africa. The analysis is situated within the sustainable development theoretical framework. The study relied mainly on an extensive desktop literature review of rural transport research output accessible in the public domain since the dawn of the democratic dispensation in 1994. Consultations with selected stakeholders provided deeper insights on government and private sector sponsored research/project work. The main findings suggested the existence of good practices and initiatives on the one hand and challenges as well as opportunities in South Africa’s rural transport research development field. The complexity of issues indicates a combination of either theoretical struggles or practical policy and planning implementation challenges. A cross-cutting issue is the need to upgrade institutional and human resource capacity to anchor sustainable rural transport research development. Innovations and new directions in the rural transport research discipline must be quickly converted into products and services that transform the basic livelihoods of ordinary rural citizens.

Keywords
Rural transport, development, transport research, capacity development, policy, South Africa

1. INTRODUCTION

Rural transport and development has matured over the years from a traditional approach that emphasized urban and motorized transport at the expense of rural and non-motorized transport, at least in theory. Consequently, the mass motorized transport (MMT) approach to rural transport research and development was largely responsible for the prioritisation of roads and motorized transport over other modes of transport and travel (Grieco et al., 2009). However, since 1980 there has been increasing concern and debate about the “conventional rural transport approach to research and planning for rural transport in developing countries” (ILO, 1985; Dennis & Flake, 1999; Chakwizira, 2009). Studies in a variety of disciplines have indicated that roads and motor vehicles have only a limited impact on many

23 “It is not the wealth of nations that build roads but the roads that builds the wealth of a nations...” (J. F. Kennedy quoted in Chakwizira, 2009)
24 Sometimes referred to as the “highway and car” approach

ISBN: 978-0-86970-781-4
rural dwellers. Transport analysts suggest that in the future, the 'highway and car' approach will not be “able to meet the totality of important transport demands of rural communities in developing countries” (ILO, 1985; Chakwizira et al, 2008; Chakwizira, 2009; Maritz et al, 2009). From this debate, there has been a “new approach to the analysis and understanding of rural transport research and development” (ILO, 1985). “The new approach questions the exclusive focus of conventional transport policies on involvement with and expansion of the current transport system and calls for a re-examination of the real transport needs of rural dwellers” (Dawson & Barwell, 1993; Department of Transport, 2007; 2008; Chakwizira, 2009). The provision of transport facilities and services should be informed by the results of such a re-examination, rather than by continuing attempts to develop or modify the transport system which is already in place but unable to meet many of the needs of rural communities. The reality of rural transport and development is that “new roads are not enough” (Dawson and Barwell, 1993; Naude et al., 2005). The paradigm shift has been informed greatly by advances in the rural access and service planning concept and approach (Starkey et al., 2002). Indeed the linkage of transport and development through the medium of the integrated access planning (IRAP) seminal projects and activities in Africa, Asia and Latin America are landmark developments (Donnges, 2003; Lee & Hine, 2008). The applications have led to customized versions of IRAP such as Rural Mobility Programme (RUMP) in Nigeria. South Africa has generated the integrated rural mobility and access programme and approach (IRMA) (Department of Transport, 2008; Mashiri et al., 2008).

The rural transport and development nexus in contemporary South Africa

Contemporary South Africa has identified “rural development as a priority area for government’s intervention” (ANC, 1994 & 2007; Chakwizira, 2009; COGTA, 2009). While rural development initiatives have been implemented since the inception of the democratic dispensation, it was not until 2009 that a with stand-alone ministry responsible for rural development was set up –the Department of Rural Development & Land Reform (DRDRLR). This is a clear message about “government’s instructive resolve towards addressing rural development” needs in South Africa. Addressing “historical spatial distortions” –including settlement and facilities dispersal and isolation struggles, “access and mobility issues, massive infrastructure backlogs, low economic growth and development scenarios, poverty, climate change challenges, information and communication technology” divides, defective “rural transport and development governance institutions” are some of the critical areas requiring priority intervention and measures (Mashiri et al., 2009; Maritz, 2009; Mbara, 2009; Nhachena et al., 2009; Wouters et al., 2009; Chakwizira, 2009). Pushing the frontiers of rural deprivation and development back and stimulating socio-economic development in marginalized and previously disadvantaged rural communities still remains a challenge (Department of Rural Development & Land Reform, 2009). The national Rural Transport Strategy is currently undergoing a review process while the National Transport Master Plan 2050 still needs to be ratified by users by way of extensive stakeholder engagements (Department of Transport, 2007& 2011). Indeed a number of cross-cutting rural transport research development interventions and initiatives covering the social, economic, technological, environmental and political gamut have been conducted (Chakwizira et al., 2008). Despite all these strides, the 2009 state of local government in South Africa report, for example, observes that “the state of rural areas still largely remains unchanged” – an indictment on the scale and intensity of development initiatives aimed at the sustainable development of rural South Africa. The analysis also underlines the importance of conducting regular rural transport research barometer studies. Measuring rural transport research productivity outcomes is an important dimension of validating whether the rural transport and development science is real and relevant. If not, the science can be re-directed. If the science is on track, then the next question to ask is whether the science is delivering inclusive development. Expected outcomes of a transport-led development agenda would include reduction in poverty, increasing social cohesion and galvanizing the growth and development of competitive rural economies/communities in South Africa.
2. LITERATURE REVIEW

2.1 Images and realities of rural transport and development

Research work on rural transport, initiated by the ILO in the early 80s, was brought together in a seminal book titled “Rural Transport in Developing Countries” published in 1985. The publication of this book marked the dawn of a new approach towards rural transport research in general, accessibility planning in particular and induced the genesis of a rural transport planning discipline based on “Integrated Rural Transport Planning” (IRTP). Literature review confirms the existence of gaps regarding how rural transport research development is faced with complex and recurring development challenges. The rural transport shortages, backlogs, gaps, deficits and challenges can be viewed as factors hamstringing and retarding rural development valorisation. Figure 1 presents a conceptual representation of rural transport research areas where gaps and opportunities for development contribution exists in South Africa.

Figure 1: Rural transport research gaps and opportunity areas in South Africa

2.2 Tensions and struggles in implementing rural transport agenda in South Africa post 1994

The reading of the rural transport research outcomes in South Africa post 1994 highlight contestations and shifts in tension regarding developing a focused agenda aimed at tackling rural transport matters in the country. On one hand, very clear policy statements and frameworks in terms of government policy enunciations aimed at bolstering rural development and by extension supporting rural transport research is clearly provided for. On the other hand, these bold intentions are not matched with the development of policy, commensurate resources and operational guidelines to translate the visions into rural transport projects and programmes. This is illustrative of the typical rural development challenges pitting the gap between theory and practice and again highlighting the skills gap regarding lack of a critical rural transport experts base to champion and provide leadership in the space. Table 1 presents a synthesis of some of the major policy documents with direct implications and relevance to the rural transport research agenda post 1994 in South Africa.
### Table 1: Some major policy documents with relevance to rural transport research agenda post 1994 South Africa

<table>
<thead>
<tr>
<th>Policy document</th>
<th>Major policy provisions</th>
<th>Rural transport research implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996 White Paper on National Transport Policy (Khosa, 1998) (to be reviewed this year)</td>
<td>The vision for the South African transport system articulated in the White Paper is to: “Provide safe, reliable, effective, efficient, &amp; fully integrated transport operations &amp; infrastructure which will best meet the needs of freight &amp; passenger customers at improving levels of service &amp; cost in a fashion which supports governments strategies for economic &amp; social development whilst being environmentally &amp; economically sustainable” (Kane, undated)</td>
<td>The same vision should be cascaded down to rural transport research</td>
</tr>
<tr>
<td></td>
<td>Policy goals &amp; objectives that emphasized “overcoming the negative transport effects of apartheid &amp; the promotion of public transport over car travel” (Kane, undated)</td>
<td>The development of non-motorized &amp; intermediate means of transport is essential in rural transport research</td>
</tr>
<tr>
<td>White Paper proposed an 80:20 percentage modal split between public &amp; private transport, &amp; also proposed the introduction of “regulated competition” with regard to public transport</td>
<td>Rural public transport provision &amp; services to outreach deep and remote areas an important component in rural transport public passenger servicing.</td>
<td></td>
</tr>
<tr>
<td>Moving South Africa 2000 Strategy</td>
<td>The MSA was intended to be a “Vision 2020” perspective on strategic action to extend the short- to medium-term policy formulation.</td>
<td>The corollary was that a “Vision 2020” perspective on rural transport action to extend the short-term-to medium-term policy formulation needed to be generated, which was never done including the courting of “moving rural South Africa” agenda which could have entailed a difference in approach, pace &amp; development urgency sense for South Africa.</td>
</tr>
<tr>
<td></td>
<td>The MSA strategy “introduced ‘customer-based’ planning, a revised view of the relationship between congestion &amp; road construction, &amp; advocacy of the improvement of infrastructure for non-motorized transportation” (Kane, undated).</td>
<td>The need to establish rural transport key performance indicators (KPIs) &amp; targets.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The development &amp; deployment of low cost access &amp; mobility interventions in rural areas.</td>
</tr>
<tr>
<td>Rural Transport Strategy (2007)</td>
<td>The delivery of rural transport infrastructure &amp; services is identified as comprised of the following “main categories &amp; related delivery actors” (Interdesign, 2005): 1. “Rural transport infrastructure – not only access roads, but also district roads, public transport interchanges, tracks &amp; other non-motorized transport infrastructure” (Khosa, 1998; Department of Transport, 2007; Chakwizira, 2009) 2. “Village-level or intra-farm transportation, where communities – particularly women – &amp; farmers themselves provide transport services that involve head loading, as well as the use of non-motorized &amp; intermediate means of transport (such as tractor-trailers), trucks &amp; light delivery vehicles (LDVs)” (Khosa, 1998; Department of Transport, 2007; Chakwizira, 2009) 3. “Rural passenger &amp; (small-volume) freight transport services to &amp; from “deep”, rural areas, where operators of LDVs (the so-called “bakkie sector”) &amp; animal-drawn carts are the main service providers”</td>
<td>Major rural transport research intervention &amp; action areas include: 1. Rural Public Transport 2. Developmental Rural Freight Logistics 3. Rural Infrastructure &amp; Services 4. Rural Transport &amp; Development 5. Rural Roads &amp; Construction 6. Harnessing Information &amp; Communication Technologies for development 7. Transport Institution &amp; Governance Systems 8. Non-Motorized Transport &amp; 9. Rural Access</td>
</tr>
<tr>
<td>Policy document</td>
<td>Major policy provisions</td>
<td>Rural transport research implications</td>
</tr>
<tr>
<td>-----------------</td>
<td>-------------------------</td>
<td>---------------------------------------</td>
</tr>
<tr>
<td></td>
<td>(Khosa, 1998) Interdesign, 2005; Department of Transport 2007; Chakwizira, 2009);</td>
<td>4. “Passenger transport services along the main connector routes (to towns, clinics &amp; other facilities), served mainly by combi-taxis, converted LDVs &amp; – in some areas – subsidized bus services” (Interdesign, 2005; Department of Transport 2007; Chakwizira, 2009);</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. “Special needs transportation services – to address the needs of persons with disabilities, the elderly, trauma &amp; non-emergency patients, learners &amp; tourists – provided, either in-house by the relevant sectors or on an out-sourced basis“, (Interdesign, 2005; Department of Transport 2007; Chakwizira, 2009); &amp;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6. “Bulk freight transportation to &amp; from processing plants, distribution centres, markets &amp; suppliers– provided mainly by commercial producers &amp; transport operators” (Interdesign, 2005; Department of Transport 2007; Chakwizira, 2009)</td>
</tr>
</tbody>
</table>

3. OBJECTIVES /RESEARCH QUESTIONS

This paper explores the state of current rural transport and development research trajectory in South Africa. The central question which is interrogated is whether as a nation South Africa is currently “parked, giving way or negotiating the curve of rural development”. Emerging discourses should take forward the rural transport and development research agenda to a higher level. The purpose of the research was to assess trends in research topics, research strategies, data analyses techniques, funding, use of theoretical frameworks, and hypothesis in rural transport and development research. Specifically we were interested in answering the following research questions with respect to rural transport research:

- “What rural transport topics were most frequently under investigation?”
- “What rural transport research strategies were being used?”
- “What rural transport data analysis techniques were employed?”
- “Were rural transport researchers being funded and were funding sources internal or external to the researchers’ institution?”
- “Were rural transport researchers using hypothesis to guide their research?”
- “Were rural transport researchers using theory or theoretical frameworks to guide their research?” (Way, 2001)

4. APPROACH & METHODOLOGY

Making use of the gap analysis technique the planning, policy and development choices implications of the rural transport research body of work is explored. The article draws heavily from primarily an extensive desktop literature review of the current rural transport and development research in South Africa. To complement and bring a primary data perspective to the analytical discussion, in-depth

---

25. This article is not a panacea for the state of rural transport research” in South Africa for the period 2000-2010 but acts as a departure point for dialogue and engagement in rural transport research development (Chakwizira, 2009).
discussions on the topic were undertaken with selected key informants from government, the private sector, development agencies, research and academic institutions in South Africa. The information and data from both the primary and secondary data sources were analyzed for emerging research trends and patterns, gaps as well as opportunities within the sector.

**Inclusion & exclusion rule**

The analysis is situated within the sustainable development theoretical framework. Making use of South Africa as the “primary unit of analysis”, the study relied mainly on “an extensive desktop literature review of rural transport and development research output accessible in the public domain” covering the period commencing at the dawn of the democratic dispensation in South Africa in 1994 (Chakwizira, 2009). Out of an initial selection of 2 094 research reports and scientific journal articles, the final sample of articles that were considered genuine rural transport research materials and subsequently subjected to a detailed review was trimmed down to 116. Consultations with selected stakeholders provided deeper insights on government and private sector sponsored research/project work.

5. **RESEARCH ANALYSIS & FINDINGS / RESULTS**

This section presents major research findings relating to rural transport research in the context of the analyzed sample of articles. The first section analyses the research matters by topics of rural transport research covered.

**Research topics covered**

Rural transportation serves an important role in rural South Africa. “By offering mobility and access for rural residents to jobs and services and enhancing the movement of agricultural products, transportation functions as an essential cornerstone of rural development” (Dennis & Flake 1999; Rubel, 1990; Department of Transport, 2007; Mashiri et al, 2008; Chakwizira et al, 2008). However, evidence suggests that the transportation network in rural South Africa is inadequate to meet the socio-economic development needs of the areas (Nhemachena et al., 2009; Chakwizira & Nhemachena, 2010). Consequently, the rural road network system, for example, has been targeted as requiring periodic, routine and remedial maintenance if the lifespan and intended purpose is to be realized (DoT, 2011).

“Paved roads as a percentage of total roads” are an important indicator of rural road and transport infrastructure quality (Chakwizira & Mashiri, 2009). Estache and Goicoechea (2004) indicate that at 21%, in terms of the percentage of “paved roads as a percentage of the total roads network, South Africa is significantly below the world average (50 %) and of all other income-groups”. Bogetic and Fedderke (2006), however, “argue that this figure might be too extreme. Using Perkins’ (2003) data, paved roads in South Africa are calculated to be 31 percent of total roads. However, even given this improved figure, South African road quality is far below its peers”. This situation is identified as a target area for urgent attention especially in “rural and previously disadvantaged areas” by Mashiri et al. (2007). Indeed new roads are not enough (Nuade et al., 2005). Overall, Kane (2004) discusses the concept of “sustainable development as a practical tool for the South African transport sector”. The study has strong resonance with green transport and economy thinking that is at the centre of contemporary transportation interventions in the country.

Rural rail transport is another issue given “little attention in the rural transportation literature” (Dennis & Flake, 1999; DOT, 2011). In addition, much less has been written about rural air and water transportation. Ssamula (2007) researched on hub network design for sparse travel demand within the African aviation industry. While integrated development plans (IDPs), integrated transport plans (ITPs) and provincial growth and development strategies discuss capacity and
constraints issues related to aviation, there is no national aviation master plan for South Africa. The same criticism applies to the lack of inland water and sea transport which could potentially open up opportunities to exploit the “blue economy” and the associated boat building industry especially for provinces such as the Eastern Cape and KwaZulu-Natal.

“Another area of the rural transport research literature deals with rural development. In general, studies focusing on transportation’s impact on rural communities can be divided into those dealing with freight issues and those dealing with the transportation of passengers (intercity passenger rail service, intercity bus service, and local public transportation)” (Dennis & Flake, 1999; Department of Transport 2007; 2011). A good example of a rural freight-oriented study is by Ittmann (2004, 2006). In addition, the 2009 CSIR research report on developmental rural logistics roadmap highlights key implementation levers to transform and integrate the first and second economies through appropriate freight logistics.

Among those “studies dealing with passenger transportation issues common themes” researched include “inadequate funding, lack of coordination among rural transport service providers” highlighting the importance of rural passenger transport services to rural residents (Dennis & Flake, 1999; Department of Transport 2007; 2011; Chakwizira & Mashiri, 2009). Mokonyama (2006) highlights the importance of harnessing innovation in rural passenger research in Africa. Furthering his focus in rural passenger transport, Mokonyama (2008) focuses on public transport service design requirements in the context of the changing transport context in South Africa. The study underlines the importance of key performance indicators (KPIs) and targets in seeking to improve rural passenger services to meet customer expectations. In 2009, Mokonyama used a modelling approach to forecast household transport energy demand in the South African context. The household energy demand is obviously high in urban areas compared to rural areas given the high and concentrated car ownership and motorization levels in urban areas. However, exceptions exist for example highly affluent rural areas with high car ownership and high energy demands, for example, Thohoyandou in Limpopo Province.

A limited number of studies deal with the general effects of infrastructure, with specific mention of transportation. One example of such a study is the “Development Bank of Southern Africa [DBSA] (2005) report” which “contends that one practical way of contributing to economic growth and achieve high socio-economic development impact is sustained investment in infrastructure, freight and logistics and public transport”. Mashiri et al., (2007; 2008; 2009; 2010) look at the effects of rural transport investments in infrastructure and concludes that that such large investments are important in stimulating and opening opportunities for socio-economic development as well as being a direct response to fighting and seeking to push back the frontiers of poverty, isolation, marginalization and exclusion. DBSA (2005) further argues that “over the past decade in South Africa, 95% of transport infrastructure investment has come from the public sector and 5% from the private sector, generally in the form of public-private partnerships. Clearly, there appears to be a substantial market for greater involvement and contribution in the transport sector by non-state sectors”.

Another category of studies focuses on what can be termed, “governmental involvement,” at the national, provincial, district and local levels. “This class of studies refers to a broad range of rural transportation concerns, including financing, planning and management, and regulatory issues” (Dennis & Flake, 1999; Department of Transport 2007; 2011). Many studies support the conclusion that local funding is inadequate for rural transportation. For example, Chakwizira and Mashiri (2009) look at the “contribution of transport governance to socio-economic development in South Africa”. One of the study’s major recommendations is that the “prevailing transport governance organizational culture, especially relating to transport planning, needs to accommodate
more inclusive approaches. Such thinking recognizes that civil society and communities are an invaluable transport planning, provision and management resource that has hitherto been underutilized” (Chakwizira & Mashiri 2009:15). Mahapa et al., (2010) investigates how the district transport function can be strengthened in order to comply and discharge the functions as enunciated by the national land transport act (NLTA, 2009). Tanyia and Vanderschuren (2010) evaluate the environmental impact of the South African freight systems energy tendencies. The study notes that freight accounts for ±40% of the total transport energy demand. The authors conclude by emphasizing the view that the assessment should not only be restricted to environmental indicators per se but be holistic – covering freight and non-freight projects.

Musandu-Nyamayaro (2007) asks the question as to whether the South Africa transport sector had mainstreamed the idea of shared growth (ASGISA) in their programmes, plans and operations. Chakwizira et al., (2010) looks at a local resource based approach to maintaining and preserving rural local access roads as assets. Making references to local expanded public works programmes in South Africa such as Siyatentela in Mpumalanga, Gundo Lashu in Limpopo, Zibambele in KwaZulu-Natal etc. the papers argue for a case for using local entrepreneurs for level 1 and 2 construction industry development board (CIDB) road cleaning, maintenance and repairs works especially for local access roads. The paper concludes that the benefits that can be derived from substituting equipment for labour and local resource based approaches are even more relevant today than when they first began to be studied and propagated in the 1970s (Chakwizira et al., 2010:113).

In terms of planning and management issues, Mashiri et al., (2008) notes that “some of the difficulties associated with rural transportation planning stem from the fact that many rural transportation projects serve scattered and isolated populations and have high per capita costs”. Mahapa (2003) researched on “spatial and social exclusion, focusing on the travel and transport needs of rural women in Limpopo Province”. However Mashiri et al. (2009), despite acknowledging the aforementioned fact proceeds to argue for the rejection of the inevitability of poverty under such circumstances. It is therefore logical to understand why a case for rural transportation planning requiring input at the local level has merit (Chakwizira, 2010). Chakwizira et al. (2008) further demonstrates how the integrated rural mobility and access (IRMA) can be used as both a tool and approach in seeking to fast-track the prosperity of rural South Africa. IRMA allows for the design, implementation and sustainability of low cost mobility interventions in support of rural local level transport needs. Mashiri et al. (2009) shows how child researchers can be used in facilitating the crafting of child centred and sensitive local level transport and travel improvements in rural areas making use of a case study from the Eastern Cape. This work is an extension and refinement of Mashiri et al.(2007) work in which the authors argue for the need to foster child centred approaches to rural transport research, planning and policy development.

“Social services transportation studies deal with a broad range of mobility issues, focusing mainly on the use of public transportation by specific demographic groups, such as the old, persons with disabilities, women and children” (Dennis & Flake, 1999; Department of Transport 2007; 2011). Mashiri et al. (2006) looks at “an assessment of gender sensitivity in a selection of transport surveys with a view to highlight the paucity of gender sensitivity in rural transport development”. Mashiri et al. (2005) looks at improving children’s mobility and access to socio-economic opportunities in South Africa’s rural environments. Overall, the study revealed that transport gender mainstreaming progression was inconsistent with examples of where gender disaggregation, for example, was in place but gender analysis not undertaken. Chakwizira et al. (2010) presents “insights into rural travel and mobility issues facing persons with disabilities (PWD) making use of a rural case study of Leroro and Moremela villages, Mpumalanga Province”. The study concluded that in rural areas “wheelchair, walking sticks/rods and special shoes” are not enough. The study further cautioned on “adopting approaches that treat rural areas as extensions and by corollary photocopies of urban
areas since such approaches risk failing to make significant contribution to resolving rural travel and mobility challenges” for PWD (Chakwizira et al., 2010:16).

“Rural transportation safety studies generally confirm that rural roads are, on average, more dangerous than urban roads, with the number and severity of accidents tending to be greater in rural areas” (Dennis & Flake, 1999; Department of Transport 2007; 2011). Maina (2008) writes on introducing new road pavement response modelling software by means of benchmarking. Paige-Green (2004) researches on labour based bitumen roads as cost-effective alternatives to gravel wearing courses. In 2006 he further writes on appropriate roads for rural areas. In 2009 Paige-Green then conducts a re-assessment of problems affecting stabilized layers in roads in South Africa. On the other hand, Nordengen (2006) investigates the importance of managing overloading on South Africa’s roads, many of which pass through rural areas. His study looks at a self-regulation initiative in heavy vehicle transport to address road safety, accelerated road deterioration and transport productivity in South Africa. He followed this work in 2007 by researching the road transport management system (RMTS): a self-regulation initiative in heavy vehicle transport in South Africa. Nordengen (2008) then investigates performance based standards (PBS) vehicles for transport in the agricultural sector. At the same time Ribbens’ (2008) study highlights the impact of an inadequate road environment on the safety of non-motorized road users. Van As (2004) researches on the design hour for rural roads as well as conducts an operational analysis of two-lane rural highways.

A common theme among environmental studies is the effect of environmental regulations, often referred to as “enhancements,” on transportation programs. Zinckel (2000) modeled transport deposition of sulphur over Southern Africa. Mashiri et al., (2008) researched on integrated rural mobility and access in terms of how to mainstream environmental issues in community transport planning and construction projects.

**Rural transport research by publication year analysis**

Figure 1 presents a graphical representation of rural transport research by year of publication in South Africa spanning the period 2000-2010. The graph shows a steady growth from 3 [2.6% of the total sample] of total for period under review, rising marginally to 4 [3.4% of the total sample] during the years 2002-2004. The publications output then spiked to 13 [11.2% of the total sample] in 2005. This reflects an increased activity in research consequent to the Moving South Africa strategy implementation. The research output drops temporarily to 9 [7.8% of the total sample] in 2006 after which the research output has been on the rise since with 2010 recording the highest output at 27 [23.3% of the total sample]. This is both a response to demand in the rural transport area as well as resources and a growth in the transport sector research capacity pipeline which was work in progress post 1994 democracy. Overall the spiking speaks to the growing recognition, visibility and footprint that rural transport research has gained over the years.

**Figure 2: rural transport research by year of publication (2000-2010)**
Figure 2 presents an analysis of the rural transport research publications (2000-2010) by thematic focus areas. Rural access and mobility issues are the most researched at 46 articles [39.7% of the total sample] followed by a clustering of focus on rural transport technology at 17 [representing 14.7% of the total sample], rural transport capacity building at 13 [representing 11.2% of the total sample] and Rural Roads at 12 [representing 10.3% of the total sample]. Areas that are little researched include rural freight and logistics at 6 [representing 5.2% of the total sample], rural rail transport & rural aviation at 1 apiece [representing 0.9% of the total sample] each. While research efforts by Maritz et al., (2009) relating to “development of a logistics brokering system for South Africa’s displaced rural residents” and Council for Scientific and Industrial Research (CSIR) freight research group are acknowledged, these are however not enough. This analysis suggests that policy and transport implications thrust and action should prioritize access and mobility in rural development investment if greater benefits are to be realized. It is also important to consciously direct resources and investment towards under-researched and little understood themes such as rural aviation to find ways through which rural airports/hubs can act as stimulus and local economic development engines in transforming neighborhoods.

Figure 3: Rural transport research publications (2000-2010) by thematic focus areas

Figure 3 summarizes the research focus area so that a distribution of the publications over the years in a theme can be appreciated. For example the year 2005 had the highest thematic distribution with...
six research focus theme areas being covered out of the nine areas. This is followed by the year 2010 with publications covering five of the nine themes. Aviation for example, is only covered in the year 2007. In the year 2003, publication were only in two thematic areas of access and mobility as well as rural transport. This suggest either a research agenda based on the funders priorities rather than on the need to cover all areas skewing research in specific directions while neglecting or ignoring other aspects of the rural transportation discipline such as rural aviation and rural inland water transport as examples.

Figure 4: summary distribution of research focus area (2000-2010)

Research Strategies
Strategies used by researchers are important to study because they are directly related to what the rural transport research can tell us. This is also because any one strategy or research approach may be inadequate to answer completely the rural transport research problem under investigation. The type of rural transport data that can be collected, the type of possible analyses, and even the types of rural transport implications that can be drawn are all directly related to research strategies employed from the beginning. As a result, research strategies are important to the development of an empirical body of rural transport knowledge and, indeed, shape what is known. This section therefore presents an analysis of the major rural transport research strategies/methodologies employed during the study area. The results are in line with expectations. Most of the rural transport work is based on hard evidence i.e. fieldwork and survey methodology accounting for a combined 71 [61.5% of the total sample]. Demonstration and pilot projects are at 14 [12.1% of the total sample] as this requires more time and usually multiple year funding to see through a project idea as well as running trial runs & tests including at time trouble shooting the results. At the same time, the use of a combination of methods is a good performance measure for the rural transport research at 19 [16.4% of the total sample]. This is because a combination of methods ensures the use of
triangulation of methods which is meant to increase reliability, validity and authenticity of research and study results/outcomes.

Figure 5: Research strategies employed in conducting rural transport research (2000-2010)

Figure 5 presents a summary view of research strategies employed during the study period. Modelling stands out as an underutilized and perhaps by extension under-developed tool in rural transport research. Few studies make use of this technique such as Venter et al., (2009) who conducts a test and application of stated preference and mixed logit modelling techniques for travel behaviour research in a rural context. No modelling has been applied in thematic areas such as rural freight and logistics, rural rail transport and rural transport. These areas are prime areas where modeling can assist in scenario, prediction as well as improving decision making for investment trade-offs. Fieldwork is the chief methodology being used in seven out of the nine thematic areas. It is also expected that experimentation including demonstration projects/pilots would be high in the rural transport technology domain as well as in rural roads, rural infrastructure and access and mobility. However, scope for deepening and widening its application to cover the full gamut of the transportation themes exist and should be keenly explored.

Figure 6: Summary view of research strategies employed (2000-2010)
Data Analysis Techniques
During the period under review no researchers “assessed data analysis techniques used in conducting investigations of published research” although instances of making reference or commenting on such techniques as part of literature reviews or methodological framework development exist (Way, 2001). Although not all researchers use “advanced statistical techniques in their research, an analysis of the common statistical techniques used in journals and publications” of the rural transport discipline can be viewed as providing a proxy “basis for recommendations for graduate education and for faculty/programme development” (Way, 2001). Mbara (2008) researches on repositioning the rural transport and development agenda with a clear focus on Eastern and Southern Africa. He follows this by writing in 2009 on mainstreaming rural travel and transport in University Curricula and makes use of a case example of the University of Zimbabwe transport planning modules to provide lessons for other Universities in South Africa in particular and Africa in general. The bulk of the analysis is quantitative at 53 [45.7% of the total sample] which is expected of rural transport which is a heavily leaning quantitative science. It is also encouraging to see an interest in the impact of rural transport interventions hence the strong descriptive statistics & qualitative analysis at 39 [33.6% of the total sample] (refer to figure 6).

Figure 7: Data analysis techniques (2000-2010)
Figure 7 presents a summary of the data analysis techniques used for the analysed rural transport research period. All themes made use of quantitative analysis. Six out of the nine research themes apiece made use of descriptive statistics and qualitative analysis as well mixed research methodology. However, the use of “simple regression, correlation and one way analysis of variance, t tests” was at a minimum (Way, 2001).

**Figure 8: Summary of data analysis techniques (2000-2010)**
involved in rural transport research to collaborate and partner in leveraging and generating joint projects and marketing ideas beyond state and non-state sectors in South Africa.

**Figure 9: Rural transport funding sources (2000-2010)**

Figure 9 presents the bird’s eye view showing that the bulk of research by thematic focus is indeed internally funded. This is also not surprising given that South Africa is yet to reach a position whereby it allocates 1% of the gross domestic product (GDP) for research as happens in developed and rapidly industrializing countries. What it also demonstrates is unlike most developing countries especially on the African continent, South Africa has the ability to fund its own research. Crucially, this means South Africa has a massive window of opportunity to undertake research to the benefit of not only its own citizens but also in Africa, unencumbered by influences from elsewhere.

**Figure 10: Summary on rural transport research by thematic areas (2000-2010)**

**Affiliations**

Most first authors who conducted rural transport research were affiliated to research institutions at 76 [65.5% of the total sample], followed by government and public institutions at 15 [12.9% of the total sample]. Public universities at 14 [12.1% of the total sample] come a distant third which is
surprising as one would have expected them to be either first or very close to the research institutions. While the private consulting company/organisations do a lot of research for public and other organisations, their research output is low at 8 [6.9% of the total sample] owing to proprietary and intellectual secrecy agreements signed as part and parcel of the service agreements aimed at non-disclosure of research findings and outputs.

Figure 11: Rural Transport Research First Author Affiliations (2000-2010)

Figure 10 presents an overview summary of first author affiliation who published rural transport research conducted between 2000 and 2010. The dominance of the research institutions in rural transport research for the reviewed period is very clear. This may relate to limited capacity in the transport sector which is currently highly concentrated in the research institutions and the consulting field. While universities may have generic research capacity may have not been researching in the area owing to limited funding in the transport sector. The dominance of the area by research institutions may also suggest that it is an emerging and highly specialized discipline.

Figure 12: Summary of first author affiliation

2.3 Use of theoretical frameworks
Most researchers in rural transport research point to the importance of theory and the relationship between theory and practice in their publications. This is understandable given that rural transport discipline is an applied and practical science. This section assesses the use of theoretical or methodological issues in rural transport research. It also checks the extent to which rural transport research makes use of theoretical frameworks to inform research activities.

Table 2 presents the variety of theoretical framework and hypothesis methods applied. Most of the research uses a combination of theoretical frameworks stated as well as hypothesis, research questions or predictions stated. Triangulation of research methods is critical in ensuring research results validity and reliability.

Table 2: Use of Theoretical Frameworks and Hypothesis

<table>
<thead>
<tr>
<th>FREQUENCY</th>
<th>PERCENT</th>
<th>VALID PERCENT</th>
<th>CUMULATIVE PERCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesis, research questions or prediction stated</td>
<td>24</td>
<td>20.7</td>
<td>20.7</td>
</tr>
<tr>
<td>A Combination</td>
<td>55</td>
<td>47.4</td>
<td>47.4</td>
</tr>
<tr>
<td>None Stated</td>
<td>5</td>
<td>4.3</td>
<td>4.3</td>
</tr>
<tr>
<td>Total</td>
<td>116</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

6. RESEARCH CONTRIBUTION

The diamond of rural transport research development in South Africa

This paper argues on the basis of reviewed and analysed literature that South Africa rural transport research landscape faces three scenarios: namely: parked; giving way or negotiating the curve of rural transport research development. The missing edge represents driving comfortably on the rural transport research development highway. Figure 13 below presents the four scenarios with explanation that are related to what we term the diamond of rural transport research development. These are mainly parking/parked, giving way, negotiating a curve and finally cruise drive. The state of rural transport research is identified as swinging between giving way and negotiating the rural transport research development curve. To shift to the cruise drive there is need for more funding for rural transport research as well as the development and deployment of a critical mass of transport experts to assist with rural transport and related projects in South Africa.

Figure 13: The four rural transport research scenarios in South Africa
Planning and policy implications
The major policy and transport planning implications that emanate from this review are summarised hereunder as follows:

- “Rural transport and development research capacity building and training is a critical pillar” that undergirds sustainable rural transport and development (RTD). It may be opportune time to “think of establishing a rural transport research development academy or alternatively” crafting the integration of RTD course curriculum much more strongly in University and Tertiary education curricula than has happened before (Chakwizira, 2009).

- Rapid rural participatory research approaches should be strengthened to incorporate much more user groups in development research, technology design and management. Children, youths and persons with disabilities can be active research mediums of innovative outreach research projects aimed at better understanding and responding to special rural transport and development groups’ needs. In addition, curricula at University should strengthen the teaching of advanced statistical analysis and modelling so that future graduates will be able to employ these techniques in unravelling various rural transport research issues in South Africa.

- Rural mobility and access problems such as “home-based health and development challenges are not only solved by point of access interventions. The case of rural home health-based care information access and distribution database development and technology demonstrator” in Moremela and Leroro communicates the message precisely (Chakwizira, 2009; Wouters et al, 2009).

- “Rural transport and development interventions should be meaningful in the eyes of the intended beneficiaries i.e. the rural dwellers” (Mashiri et al, 2008; Mashiri et al, 2009; Chakwizira, 2009).
Indeed rural development impact measuring tools should incorporate “a strong rural user group and perception evaluation component” (Chakwizira, 2009; Wouters et al, 2009).

- Inclusive rural transport research development is responsive to “factors such as appropriate institutions and governance structures, gender, HIV/AIDS, climate change, millennium development goals, food and energy crisis, integrated rural infrastructure development” is an important component of an advanced rural transport research agenda for South Africa (Chakwizira, 2009).
- “Themes such as transport and rural development safety and security”, non-motorised transportation, “appropriate and sustainable construction standards for low volume rural roads, generation and production of new road maps taking into account climate change needs priority” (Paige-Green, 2004; Paige-Green, 2007; Paige-Green, 2009; Chakwizira, 2009), and
- “Anchoring sustainable rural transport and development interventions” in the context of the global energy, food and recent economic crisis should be at the fulcrum of interventions and policy options (Chakwizira, 2009; Nhachena et al, 2009; Njenga & Mbara, 2009).

7. CONCLUDING REMARKS

Rural transport and development in South Africa is faced with critical challenges such as linking rural transport and development, promotion and development of sustainable non-motorized transport, extension and development of rural rail and local freight services, inland water transport infrastructure and services, funding and financing limitations coupled with lack of a critical mass of rural transport experts. These are not new problems or are the challenges new discoveries. For some time these problems have been known but little headway in practice is being made in addressing these challenges. This begs the questions: what, where, who, how and why does this problem persist? What could be the problem and solution to addressing these matters – should we focus on transforming people, spaces, cultures, institutions or laws.

Multi and trans-disciplinary applications and approaches platforms are important in resolving existing and emerging research and development challenges embodied in rural areas. However, advances in rural transport research and development applications have contributed towards minimizing the retrogressive impact of the highlighted issues to rural development. Case studies and lessons in rural transport and development experience inform future intervention options and strategies. Government commitment including funding of rural transport and development research work require prioritisation and perhaps “ring fencing”. Indeed the contribution and scope for exploring integrated rural transport and development solutions remains important in the quest to create better communities to live, recreate and be productive.

The question as whether as a country we are parked/parking; giving way or negotiating the curve of rural transport and development has never been more relevant. The paper has indicated that that there is some movement and progress in this direction. Although the South African rural transport research is not parked or parking, it cannot also be concluded that the rural transport research is in the cruise drive mode regarding rural transport research. What the literature synthesis pointed to was that rural transport research in South Africa is swinging between giving way and negotiating the rural transport research development curve. However, it is argued here that if rural transport research opportunities and gaps identified are tackled head on as argued throughout this paper, it will be possible to envision an unfolding future rural transport research atlas and agenda that provides a higher development contribution than has hitherto been the case. In other words, the rural transport research agenda needs to be strengthened and developed to take its rightful place in the development puzzle. Such positioning could unleash invaluable rural transport research contribution towards making rural areas great places –great places to be born in, great places to grow in, great places to produce and reproduce in and great places to create/invent or recreate/reinvent in”. 
8. RESEARCH LIMITATIONS

The research has the following limitations, namely:

- Confidential rural transport research and articles in organization are not captured by this analysis. It only focused on research available to the public domain;
- The research cohort focuses on a ten year period and a bigger time frame can yield potentially different results; and
- The authors decided against conducting a citation index analysis of the rural transport research given complex debates surrounding the accuracy and reliability of the H-index by different databases. This could have been important in showing the impact of the rural transport research from a citation point of view.

9. FURTHER RESEARCH

In general, several microanalyses would be illuminating. Although we coded topics into 9 different content areas, it would be useful to conduct an exhaustive analysis of topics (e.g., access and mobility could be divided into access and mobility technologies; access and mobility assets, access and mobility attitudes, access and mobility information systems; asset and mobility infrastructure; asset and mobility governance and so on). Likewise, knowing exactly which rural transport theories were used in various rural transport researches, rather than if theories were used generally, would have provided more information on theoretical influence and discrete or composite theory usefulness. Finally, an analysis of specific funding sources would provide information on what has helped sustain research in rural transport research and provide ideas for where to seek future funding.

10. ACKNOWLEDGEMENTS

The authors acknowledge research, academic, private consulting companies and institutions that have helped with funding to conduct this research. Previous funding by CSIR for the initial concept behind this paper is greatly appreciated. An earlier formative version of this paper was presented at CSIR in 2009 ESASTAP [European –South African Science and Technology Advancement Programme] titled “The state of rural transport research in South Africa: unravelling transport research findings for 2009”.

11. REFERENCES

ANC (1994) Reconstruction and Development Programme, Albert Luthuli House, Johannesburg

ANC (2007) ANC 52nd National Conference, University of Limpopo, Polokwane


Capricorn District Municipality (2009) Transport Authority Plan, Polokwane, South Africa


Dawson, J. & Barwell, I. (1993) Roads are Not Enough – New Perspectives on Rural Transport Planning in Developing Countries, Intermediate Technology, United Kingdom


Department of Cooperative Governance & Traditional Affairs (2009)State of Local Government in South Africa, Pretoria, South Africa

Department of Transport (1996), White Paper on National Transport Policy, Pretoria

Department of Transport (2003) “National Household Travel Survey”, Pretoria


Department of Transport (2011). *National Transport Master Plan 2050*, Pretoria


Kane L (undated) Transport problems associated with poverty in South Africa, Urban Trabnsport Research Group, Department of Civil Engineering, University of Cape Town, Cape Town, www.cfts-uct.org


ILO (1985) Rural Transport in Developing Countries, Geneva, Switzerland


ISBN: 978-0-86970-781-4


Rubel, T. (1990). “Future of Rural Transportation” in Proceedings of the 76th Annual Road School (Held at Purdue University, March 6-8), 161, pp. 55-60.


Vanderchuren, M. & Tanya, L. (2010) Some thoughts on capacity requirements for planning, SATC powerpoint presentation, Pretoria


A Place is not Great, not Until its User Perceives it as Such

Magdeline Tsetotsi ¹, Johan Olivier ²

¹ Director
Ranyaka Community Investment Managers
Cnr Wierda and Willem Botha streets, Centurion, 0157, South Africa
Tel: +27-12-658043 / Fax: +27-6580403
Email: magdelinem@akanyads.co.za

² Director
Akanya Development Solutions
Cnr Wierda and Willem Botha streets, Centurion, 0157, South Africa
Tel: +27-12-658043 / Fax: +27-6580403
Email: johano@akanyads.co.za

Abstract

This paper reports that great places are best defined by the community in which they are to be developed. Defining a great place may not seem to be a difficult task, especially to an individual who is not expected to be the final user of the place. This poses the question of who should define what a great place is. One can argue without any doubt that great places ought to bring positive change to their end users and this means a lot of things; it may include job creation, entertainment, good health and other opportunities. It is unfortunate that despite the existence of “the pool of knowledge”, available definitions and best practices, communities still demonstrate dissatisfaction towards some of the “great places” created by their own municipalities, planners, corporates (through corporate responsibility funds) and even community based organisations.

It is crucial to define what constitutes a great place for a specific community before any further planning can be done. This does not only bring satisfaction to the community but also to the project planner and investor. Whilst available definitions and best practices serve as a guide in formulating norms and principles towards creating great places, community members as the end users possess valuable information and insight into how a particular development will affect the everyday life of their community, what their daily challenges are and what place-based assets already exist. It is therefore essential to ensure that a great place is one that its own community considers to be great. This can be achieved by employing a collaborative, innovative and people-orientated development process that will actively involve community members way before the conceptualisation phase of projects. It is important to perceive them as developmental partners and not just beneficiaries. In order to understand what the above statement means, this paper takes a close look at the developmental process established by one of the not-for-profit companies operating in the rural town of Magaliesburg, South Africa. The community of Magaliesburg defined a great place as a high quality destination, one that is resilient and sustainable. It is not surprising that this definition later became the developmental vision of the Magalies Development Initiative (MDI), the primary discussion subject of this paper.

Keywords: Community Development, Corporate Social Investment (CSI), Great place, Magaliesburg Development Initiative (MDI), Local Economic Development (LED), Social Labour Plans (SLP)
1. INTRODUCTION

The primary focus of this paper is on the developmental approach employed by a non-profit organisation in Magaliesburg to develop the spatial environment of the area and as well as the community that live in it. The process is a combination of technical (an approved municipal precinct plan) and professional ‘input’ on the one hand and a deliberate emphasis on the need to foster community spirit on the other. It is based on the premise that the successful upliftment and empowerment of communities and the places in which they live and work, involves a combination and collaboration of all available resources in a consistent and sequential manner. Also, the process strives to reflect the development vision of a community in spatial terms. The process assists community members to firstly identify cross-sectoral resources and assets; and secondly, identify viable projects and initiatives. Apart from utilizing specific methodologies such as the Community Investment Plan (CIP), the main purpose above mentioned exercises is to assist the community in sharing their different social and cultural experiences. A community possesses diverse individuals/groups thus demanding a process that will embrace the diversity of a specific community.

2. BACKGROUND AND RESEARCH AREA

Communities across our country are in dire need of rising above the challenges of poverty, low skills levels, unemployment, malnutrition, lack of access to opportunities – and so the list continues. Probably more important is that communities start to initiate locally-based development efforts resulting from the catalytic efforts of government. Governments can provide infrastructure and services, business support, capital and so forth, but at some stage, all of this “assistance” should culminate in communities taking up the call for their own development because they out of all know what they consider to be great.

“The village of Magaliesburg is situated in a valley of the Magaliesberg mountain range in South Africa. Its scenic beauty, rugged mountains, kloofs, dams and many streams have resulted in the establishment of various lovely holiday resorts, hotels and guest farms, offering a popular escape from the cold winters of the Witwatersrand. The abundance of fauna and flora in the region makes it a haven for the outdoor enthusiasts.”

This is true of Magaliesburg but the town currently finds itself in the same position as numerous other small towns in South Africa – one of declining economic growth, poverty, changing markets and increasing neglect – and one not particularly conducive to attracting potential investors to the area. However, if developed correctly and in a sustainable manner, Magaliesburg offers a treasure trove of opportunity – one rich in natural beauty, culture and an established and diverse community loyal to this place they call home.

A local group of individuals tried to initiate interventions to breathe new life into the area. These individuals knew about the existence of local government and its role but however could not recognise its effort to make a great place out of Magaliesburg. This shows how crucial it is to properly align efforts with resources needed by the community to create a great place.

The Magaliesburg Development Initiative is a Case-Study that shows how effective a people-orientated and collaborative approach can be in creating great places within communities with communities. This process gave the community of Magaliesburg the opportunity to define what they consider a great place and by so doing giving them control over how a great Magaliesburg should be achieved, operate and look. It took approximately 10 months to reach this point with the Magalies community but since this has been achieved the implementation plan can be easily developed because the community itself has taken the responsibility.

26 http://www.mogalecity.gov.za/content/pdfs/magalies_precinct_plan.pdf
to develop the area as envisioned. The Community developed patience because they were informed and became less dependent because they were given control.

3. LITERATURE REVIEW

“Every neighbourhood…can be vibrant, but if people don’t feel like they can contribute to shaping their places, vibrancy can’t exist. Period. Gentrification, which is often blamed on honest attempts to create more vibrant, livable places, is what happens when we forget that vibrancy is people; that it cannot be built or installed, but must be inspired and cultivated”27. In the same vein “good” definitions of what constitutes a great place and their illustrations through magnificent technical plans and designs cannot automatically result in great places28. Communities are different but all have the same desire…to have a great place. What that means for all these communities however is completely different. It is therefore essential to ensure that developmental processes put emphasis on a collaborative platform with a continued dialogue that will avoid rushing through community participatory meetings. Community participation does not only have to assist with the first chapter or first phase of plans but they should always seek to inform the implementation phase of any developmental plan as well.

Ranyaka Community Investment Managers is a non-profit organisation that is currently assisting the community of Magaliesburg, its local municipality and private sector businesses to plan and manage various development and community investment options in order to meet specified development and social investment goals. For the organisation to appropriately develop the community a definition of what constitute a great place had to be developed. The community of Magaliesburg defined a great place as “a high quality destination, one that is resilient and sustainable”. With the understanding that communities are different the organisation had to contextualise the definition making sure that the implementation phase gives effect to the envisioned space that the community had in mind when giving the definition.

Community participation sits at the heart of community development29 but for the past few years the processes of engaging with the community for development processes has been nothing but a cumbersome experience for many government entities and corporates. Evidence is shown through rushed through or lack of visioning processes for a developmental plan such as a Spatial Development Plan. Giving respect to the complexity of social changes these entities have settled for less complicated and easily manageable processes towards community engagement and participation. These are usually processes that seek to establish community’s needs rather than available skills, resources and capabilities30. They ‘assume’ that communities are unable to take control of their immediate environment and therefore require a “hero entity” to save them31. What is more frightening is that these processes often make community issues to be forced into organisational scorecards, irrelevant key performance indicators and incorrect measures for impact assessment.

4. OBJECTIVES /RESEARCH QUESTIONS

The objective of this case-study is to illustrate some of the most basic steps that both public and private entities can take in engaging and involving communities during decision-making processes; how important it is for one not to rush through a community participation process only to end up with either an impractical implementation plan or no implementation plan period. To answer our research question; “who should

28 Kambuwa and Wallis, 2002
29 Wood, 2008
30 Wood, 2008
31 Wood, 2008
define what constitutes a great place?” this paper explores different responses received from the community of Magaliesburg during the development of a community vision for a Community Investment Plan (CIP). It was agreed by the community that the plan will be implemented by a community-driven initiative, the Magaliesburg Development Initiative (MDI).

Through a local newspaper, several meetings and workshops the MDI vision was properly marketed ensuring that it obtained support from different stakeholder (local government organisation, non-government and private organisation). Another process was initiated to clarify roles for entities and individuals that supported the vision of the MDI.

5. APPROACH & METHODOLOGY

The MDI used a people-orientated approach that puts emphasis on bringing together various role players (communities, municipality and government representatives, business, donors etc.) to actively participate in an ongoing dialogue and sustainable community development process against the backdrop of a comprehensive and integrated investment plan.

The investment plan comprised a strong visual planning platform that facilitated dialogue around community building, the creation of a strong sense of place and the promotion of area based economic interventions. The investment plan and applied process wrapped participated initiatives and projects into a consolidated bundle. This made it easier for participants to see the entire development picture and to handle the implementation and management of cross-sectoral projects and initiatives. Donor and partner actions were therefore streamlined and integrated with government/municipal planning and budgeting processes.

The plan was developed in such a way that it can serve as a strong reference for Social Labour Plans, Social Corporate Investment plans and government sector plans. The next step for the MDI is to obtain consistent financial support that will sustainably implement projects and programmes.

Method

During the first work session of the MDI community members were asked to identify available resources within their area. These resources were categorised into individual, Spatial and institutional resources. Individual resources are those resources that are possessed within a single individual such as a retired business man willing to draw up business plans for the community to acquire funding. Spatial resources are those resources that are found within the space that they live in (e.g. an underutilised youth centre). These also include natural resources such as rivers. Institutional resources on the other hand refer to entities that are currently operating in the community with a developmental mandate such as the local municipality and other non-governmental organisations.

It took a full day session for the community in Magaliesburg to complete their resource mapping exercise but it ended up as an awareness campaign for them as most members admitted to not knowing how much they had and how they should change their mind-set towards government service delivery. One of them said that “the MDI is the best thing that had ever happened to our Magalies because this is where we learn about government’s intentions about our community and how we can contribute towards the change that government wants to bring”.

Identifying viable projects-towards a Community Investment Plan

After numerous dialogues and small group meetings the entire community was invited back to a second work session. In this work session members and supporters of the MDI took identified resources of the previous session and used them to develop viable projects that can be implemented by members of the MDI/community. In most cases MDI members did not have the capacity to do so and had to recruit more members with necessary expertise. For example, the MDI did not have an entity or individual that will be
able to exploit existing natural resources for tourism projects. A non-profit company was asked to partner with the MDI in order to fulfill this role.

Resource Management- creating a backroom management office
Collaboration, synergy, dialogue, sustainability and resource management are but a handful of slogans and phrases that often feature in discussions when it comes to projects such as the MDI. Making this happen, however, requires a very real and long-term commitment by all role-players involved – from the very grassroots level all the way up to corporates who wish to invest in initiatives of this nature.

All too often, such initiatives have lost momentum over time as a result of an absence of some kind of umbrella organisation or project management team which constantly has the ‘bigger picture’ in mind. The MDI appointed a non-profit organisation called Ranyaka Community Investment Managers to play such a role. The organisation served and stills serves as the Backroom office and;

- brings together different role players, investigates potential avenues for corporate investment
- facilitates dialogue amongst all parties, oversees the consistent and sustainable implementation of specific and detailed action plans which will contribute to the overall vision of the community
- identifies opportunities, introduces individuals, community leaders, local business and corporate investors to one another, encourages a joint effort so that the word ‘synergy’ does not remain a catchphrase – but a reality for a town with massive potential to become a great place for its users.

6. RESEARCH ANALYSIS & FINDINGS / RESULTS

The Magaliesburg Development Initiative has already enjoyed successes in terms of social cohesion, sense of community and belonging. Apart from this the youth of Magaliesburg was poorly integrated into the developmental mainstream of the MDI. This was resolved by developing a Youth Program that ensured that young people are kept in the loop and given the opportunity to give suggestions and opinions through various social media platforms such as Facebook and WhatsApp. Through this program a youth forum was established and various project teams were established as well. This forum helps the older generation of the MDI to develop project business cases, proposals and other supporting plans in terms of job creation, place-making, social and youth development, food production and greening. All of these are done in terms of a vision of creating a resilient, high quality eco-friendly destination. The next section is an overview of some the projects established by the MDI.

<table>
<thead>
<tr>
<th>Project name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community Park</td>
<td>The community park will integrate the envisaged train station development and the existing developments in the village of Magaliesburg. It will comprise a natural park setting with clearly delineated picnic spots, children’s adventure zones, sculpture areas and walking trails. A conceptual design is completed and a final sketch will be done by a group of volunteer landscape architects from the area. A feasibility study is underway and lease agreements between the MDI and Transnet are being still under preparation.</td>
</tr>
<tr>
<td>Small scale farming</td>
<td>The establishment of community level and small-scale farming activities is a logical extension of the already existing commercial farming activities in the Magaliesburg area. A small group of community members that is already busy with food production activities has been identified and more than 22 hectares of land is being committed for the project by local members of the community itself. The intention is to train participants in sustainable productions.</td>
</tr>
</tbody>
</table>
food production methods and establish local market linkages with hotels and lodges in the area.

Enterprise Development Hub-The Youth Box™

The aim of the Youth Box™ is to provide the youth of the neglected area in Magaliesburg with resources and facilities that can build their capacity to access opportunities. The Youth Box™ comprises an inexpensive off-the-grid structure with a high architectural quality to strengthen the aesthetic feature of the entire neighbourhood. It is a green structure incorporating the use of waste and eco-friendly material such as shipping containers and solar panels as its energy source. It is a space where information can be accessed, youth functions can be held and where other initiatives e.g. sustainable food production can be showcased.

Place-making

One of the key aspects of the Magaliesburg initiative is to create more jobs by more people visiting the area. However, in order to bring more tourists and visitors to Magaliesburg, the town needs to offer a more inviting experience – one which incorporates streetscape elements, streets and sidewalks, benches, lights, gardens, walls etc. Three areas have been identified for place-making and these include the rural township, the town centre in the valley and the old steam train station.

Projects under the Magaliesburg Development Initiative (MDI)

None of these have been materialised due to the unavailability of funds but the community is already considering Magaliesburg a great place. The MDI has brought them hope and has made them see themselves differently. They now feel that they are capable to transform their own area into a great place, and do not necessary have wait upon government to that for them. They understand the process that is involved in achieving this great place and have the patient to wait and continue working on it together. The following is some of the positive actions taken by the community.

- Hotels involved in waste management programme
- Accommodation establishment enterprise development – water bottling, soaps, linen etc.
- Bamboo farm proposal to Nedbank
- Land made available by owners for agriculture
- Local members to initiate mountain bike enterprise – club has been established
- Regular articles in local newspaper and international blogs and magazines
- Establishing a community business to lease and develop station site
- Marketing material placed in hotel rooms

7. RESEARCH CONTRIBUTION

This case study contributes to literature by providing unique information about a collaborative, innovative and place-based approach that has been tested in Magaliesburg. The knowledge generated from this research can be used to assist town planners to effectively engage with ordinary citizens in building communities that will bring satisfaction to their end users. This process will also bring satisfaction to planners when they realise that the plans that they have developed actually do bring about the change that they themselves wanted to see in a particular space.

Secondly the process used in Magaliesburg is an innovative approach that can adopted by various rural towns and small spaces within urban areas to achieve what end users consider great. It can serve as a developmental model that can be easily implemented through a Local Economic Development (LED) unit in a municipality or a Corporate Social Investment (CSI) department for a corporate company. The MDI proved that the process that was used to develop the Community Investment Plan created a Public-Private-
COMMUNITY Partnership (PPCP) that ensured that communities *recognise* efforts made by different investors and *appreciate* projects that they initiated to create great places within their community.

8. CONCLUDING REMARKS
The existence of the MDI does not replace other existing and isolated projects in the areas, instead it brings together (but does not necessarily consolidate) these projects in order to see how resources can be shared. The next step however is to ensure that necessary financial and technical investment is obtained in order for the implementation of projects to commence. A process such as this requires a special funding model that will feed into place-based and multi-sectoral projects. This can be developed once potential funders for specific projects are identified in a specific area.

9. RESEARCH LIMITATIONS
A significant amount of time was spent in developing projects and programs and this was during a time when the Youth Forum had not been established. This means that these projects are somehow biased towards the older generation of the community. Further dialogues with the youth still need to be held in order to investigate some of the issues that are faced by young people and how they see those issues resolved. The appointed project manager of the MDI was a newly established non-profit organisation that worked on a voluntary basis and had no financial resources to efficiently manage the entire initiative. The process employed was based on a Precinct Plan approved in 2012. The MDI depended on data found in this document without updating it first. This means that some of the information used may have required a revisit and evaluation.

10. FURTHER RESEARCH
Further research needs to be done in investigating possible funding methods for backroom offices for projects such as the MDI. Since this type of projects demand a multi-sectoral funding model, one needs to figure out how this model will operate in order to consistently feed into the project in order to avoid breaking the momentum gained from the community itself and the implementation process. This will also ensure that projects are sustainable and well maintained. Other funding mechanisms have to be established in order to create a diverse impact management system that will accurately measure impact and outcomes made through this innovative process.

11. ACKNOWLEDGEMENTS
Special thanks to Akanya Development Solutions for providing office space, transport and other resources to complete this research. We would also like to extend our gratitude to the community of Magaliesburg for agreeing to work with us during this research and being honest with us throughout.

12. REFERENCES


Enhancing Environmentally Quality Settlements through Eco-Sensitive Infrastructure Interventions

Shian H. Saroop¹, Dhiren Allopi²

¹ Royal Haskoning DHV, P O Box 55, Pinetown, 3600, SA
Tel: +27 (0)31 7195500, Fax: +27 (0)31 7195505, E-mail: shian.saroop@rhdhv.com

² Department of Civil Engineering and Surveying
Durban University of Technology, P O Box 1334, Durban, SA
Tel (031) 3732310 Fax (031) 3732020, E-mail: allopid@dut.ac.za

Abstract

There is a growing complexity of infrastructure planning and the need for coordination of design and environmental requirements. The lack of appropriate tools and skills for sustainable infrastructure design is often seen as a barrier to sustainable design. Infrastructure development has been focused mainly on financing issues and engineering aspects in the region. Mainstreaming environmental aspects and incorporating the eco-efficiency concept into various stages of infrastructure development have not been considered as much as they should have been. Improvement in the awareness of eco-efficiency concepts is urgently needed among policy-makers, planners and decision-makers. However, the criteria applicable to, and measures for developing eco-efficient and sustainable infrastructure are yet to be fully identified (United Nations Economic and Social Commission for Asia and the Pacific, 2006). Engineers need to look at greener technologies rather than just using traditional engineering solutions. The paper focuses on the concept of eco-efficiency in Infrastructure Design that promotes the use of the greener engineering options, enabling him/her to choose the one likely to yield the best performance with the least environmental impact. This paper discusses the application of ‘green technology’ and looks at a number of recommended green practices on infrastructure projects that are environmentally sound, placing fewer burdens on the environment. It would ensure a sustainable design of township infrastructure services enforcing the consideration of resources, environmental impacts of design decisions, ecological sensitivity, innovation, maintenance and materials, at the design stage of a project.

Keywords:
Green Technology, Infrastructure design, Eco-efficiency, Sustainable development, Green infrastructure

1. INTRODUCTION

As we face significant planetary issues such as global warming, it is clear that the civil engineering projects have a significant part to play in affecting the future of our planet. Globally, the construction industry is one of the main contributors to the depletion of natural resources and a major cause of unwanted side effects such as air and water pollution, solid waste, deforestation, health hazards, global warming, and other negative consequences. There is a lack of adequate tools and skills to undertake sustainable design on
infrastructure projects Civil engineering projects can have significant site-specific and cumulative impacts on our ecological and social systems if not correctly planned, designed and implemented. Relatively few designers have as yet explored the transformative potential of ecological design and have preferred to remain apolitical and unconcerned with the distributional impacts of design as they affect the health of humans and ecosystems (Van Wyk, 2009). Infrastructure development has been focused mainly on financing issues and engineering aspects in the region. Mainstreaming environmental aspects and incorporating the eco-efficiency concept into various stages of infrastructure development have not been considered as much as they should have been. By utilising improved environmentally friendly-seeking design solutions, this study aims to introduce environmentally friendly design decisions prior to the infrastructure design approval process. This increases overall competitiveness by bringing a whole new class of productive solutions to problems while at the same time adding a fresh perspective to the traditional infrastructure design process.

The need to implement green technology on infrastructure projects

In the area of sustainability, there is an urgent need to apply technologies and methods that deliver better and more sustainable performance in a way that is cost effective. Sustainability, adaptive and mitigative approaches to climate change, in the design of infrastructure are therefore important steering elements (FIDIC, 2009: p44). Green buildings embedded within unsustainable urban infrastructures won’t deliver sustainability. There is a need for the whole site design as opposed to only the building (Swilling, 2008). The external bulk infrastructure that contributes significantly to suitability of a development also needs to be considered. These include infrastructure requirements such as road construction, water and sewage as well as stormwater and layout planning can result in loss of critical ecosystems and biodiversity. There is a need to create an eco-sensitive infrastructure design that encourages and promotes the use of “softer” design solutions. By utilising improved environmentally friendly-seeking design methods, this study aims to introduce environmentally friendly design decisions prior to the infrastructure design approval process. This increases overall competitiveness by bringing a whole new class of productive solutions to problems while at the same time adding a fresh perspective to the traditional infrastructure design process.

2. OBJECTIVES

In view of the inadequacy of tools to assess the environmental impacts of infrastructure design decisions, the objectives of this paper are as follows:

- To ensure greener infrastructure is designed with minimal impact to the environment;
- To incorporate environmentally friendly, ecologically sensitive innovative design, at the design stage of township infrastructure projects;
- To define green infrastructure solutions amongst engineers by establishing a common language and standard of measurement;
- To raise awareness of green engineering benefits and the environmental impact of consultants' design decision, in order to reduce the environmental impact of development;
- To establish a means of identifying environmental leadership on civil engineering projects;
- To introduce environmentally conscious design decisions at inception stage, where they are influenced the most.

The influence of early design decisions on the environmental impact and sustainability on infrastructure projects

Diligent attention to greener infrastructure solutions from the very earliest phases of a project will help guarantee that quality design environmental solutions are “built in” from the beginning. The easiest way to reduce environmental impacts on projects is to take the environmental issues into account early in the planning and design phase. Environmental management in project design introduces new aspects to both
the project and the basis for decision-making during the project. It is essential that the environmental issues be integrated into achieving the most appropriate solutions.

Figure 1.1 shows the declining influence of environmental interventions on a project.

It is important to implement the environmental management from the early stages of the process, since the “freedom” to make decisions, of importance for the environment, decreases with the progress of the project.

![Figure 1.1 The environmental degrees of freedom (European Green Cities Network, 2004)](image)

**The Use of Sustainability Criteria on Infrastructure Design**

The role of criteria for sustainable green infrastructure are tools or indicators, which can be used in the conceptualization, implementation, and monitoring of progress in township infrastructure projects. The criteria define the essential components of the proposed Green infrastructure toolkit against which sustainability may be assessed. Thus, collectively, the criteria provide an implicit, generally agreed-upon global definition, for the concept of sustainability on infrastructure projects. Each criterion relates to a key element of sustainability. Through the measurement and monitoring of these indicators, the overall effects of the proposed Green infrastructure toolkit, can be assessed and evaluated, and action can be adjusted to meet stated aims and objectives more effectively. The client’s vision, goals and objectives for Environmental sustainability on a project can be translated into a core set of project criteria. While project goals set the direction, the project sustainability categories provide the means to measure a project. It enables clients, engineers and stakeholders to gauge progress toward sustainable development by comparing the performance achieved on a project with the intended performance.

The Environmental Sustainability criteria that characterize sustainable criteria of Green township infrastructure are listed in Table 1. The Eco Efficient Infrastructure Sustainability Criteria namely Efficient Layout Planning ensures that infrastructure is placed in environmentally responsible ways. The Resources criteria encourage an efficient utilisation of materials/ resources. Environmental Quality mitigates environmental impacts of infrastructure. Functional Efficiency ensures that infrastructure is designed optimally. Future Maintenance maximizes the opportunities for integrating capital and operation of infrastructure. Economy maximizes the opportunities for integrated cost effective adoption of green infrastructure options. The Safety criteria encourages the designer to assess potential safety hazards of the infrastructure element from both an operational and construction point of view. Social sustainability of infrastructure promotes the use of social resources, encourages public participation and the placement of infrastructure in the most convenient manner.
Table 1: The eco efficient infrastructure performance criteria

<table>
<thead>
<tr>
<th>Eco-efficient infrastructure Sustainable criteria</th>
<th>Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Resources</td>
<td>Encourages the efficient utilisation of materials/ resources, selection of environmentally friendly materials.</td>
</tr>
<tr>
<td>3. Environment Quality</td>
<td>Design features that mitigate environmental impacts of infrastructure, by reducing the effects of pollutants</td>
</tr>
<tr>
<td>5. Future maintenance</td>
<td>Maximizes the opportunities for integrating capital and operation of infrastructure, ensuring reliability of level of service</td>
</tr>
<tr>
<td>6. Economy</td>
<td>Maximizes the opportunities for integrated cost effective adoption of green infrastructure options.</td>
</tr>
<tr>
<td>7. Safety</td>
<td>Minimizes the environmental impact of infrastructure by incorporating safety into the design.</td>
</tr>
<tr>
<td>8. Social</td>
<td>Ensuring social sustainability of infrastructure, promoting convenience, social resources and public participation.</td>
</tr>
</tbody>
</table>

The Infrastructure Sustainability criteria used in the proposed Green Township Infrastructure Design Toolkit were developed to:

- Determine the means by which eco-environmental efficiency can be assessed, monitored, quantified and verified at any stage of the project, to ensure a value-added, quality driven, green approach to infrastructure design;
- Provide a basis for the consultants and clients to work together on creating and evaluating sustainable infrastructure solutions, thereby ensuring comprehensive infrastructure planning with maximum stakeholder involvement;
- Achieve the required balance of sustainability, expenditure, value for money and quality, between the various elements of the project;
Green design elements that will improve the environmental quality of infrastructure projects

Innovative approaches to planning and design can greatly mitigate the negative impacts of infrastructure services on the environment. Various green technologies concepts were researched and modified to suit township infrastructure projects, with the aim of reducing the impacts of civil engineering infrastructure on residential developments. Green Technology that can be used on infrastructure projects may include the utilization of natural or engineered systems that mimic natural landscapes in order to capture, cleanse and reduce stormwater runoff. Greener stormwater infrastructure solutions can include rain gardens, rain barrels, green roofs, wetlands, permeable pavement and other methods intended to significantly reduce the amount of stormwater runoff entering the sewer system and our waterways. Roads present many opportunities for green infrastructure application that incorporates a wide variety of design elements including street trees, permeable pavements, bioretention, and swales. The various design solutions of a township were broken down into various elements in order to identify alternative ways in which greener solutions can be achieved. This eco-efficient design various sustainable infrastructure solutions are categorized into various sustainability criteria, under various elements in the Figure 1.2 below:
Figure 1.2 Green infrastructure technologies that can be used on infrastructure projects
Advantages of using the Eco approach to infrastructure design

The Eco-approach to infrastructure design takes a “design with nature” approach, to mitigate the potential impacts of a development. The benefits of this approach are as follows:

- Uses natural resources efficiently, maximizes the use of local materials, and eliminates waste;
- Reduces the ecological footprints of roads, sewer, stormwater and water, allowing ecosystems to function more naturally;
- Uses energy-efficiency systems and materials;
- Plans for future maintenance;
- Reduces, reuses, and recycles materials;
- Conserves and reuses water and treats stormwater runoff on-site;
- Recharged ground water flow for streams, conserving water supplies.

3. CONCLUSIONS

There is an urgent need to apply eco-efficiency concept into township infrastructure development. Green techniques provide adaptation benefits for a wide array of circumstances, by conserving and reusing water, promoting groundwater recharge, and reducing surface water discharges that could reduce to flooding. In addition to this, greener engineering improves urban aesthetics and community livability, by providing recreational and wildlife areas. Green infrastructure may save capital costs associated with paving, creating curbs and gutters, building large stormwater conveyance systems, other hard infrastructure and energy costs. Though eco friendly design is a major component of the green value assessment, several other basic sustainability requirements are also assessed. Taking a greener approach to infrastructure development not only mitigates the potential environmental impacts of development but makes economic sense as well. By softening the environmental footprint, avoiding waste and finding efficiencies, clients and local governments can increase their long term sustainability. As can be seen in this paper, there are numerous opportunities for improving eco-efficiency in infrastructure design. A new paradigm for infrastructure design is required in order to maintain environmental sustainability infrastructure.

4. REFERENCES


Authors Short Profile/ Biography

Aalia Kajee is the Town and Regional Planner for Eskom KZN Operating Unit Distribution Eastern Region, where she is part of the team that looks at the supply and demand of electricity for KZN. She plays a role by providing a spatial outlook of proposed growth within the region (via close liaison with municipal planners), thus enabling the Network Development planners to adequately plan for proposed growth. She is the leader of Eskom’s Town and Regional Planning National Work Group and is in the process of applying her KZN methodology to all of Eskom’s 6 regions to achieve a national spatial plan of proposed growth within South Africa. She is also a member of Eskom’s Load Forecasting Work Group and assists with the translation of land use into electrical loads and Eskom’s Wind and Solar Work Group, the national work group which ensures that municipal IDPs are used when analysing suitable land portions for wind and solar farms. Her previous experience includes being a GIS Technologist and Technician at Eskom and a Town Planning Technician and in-service trainee at eThekwini Municipality. Aalia is a professional town and regional planner and obtained her BTech from DUT.

Alka Ramnath is employed as a planner at Umgeni Water (the water board providing bulk potable water to the economic hub of KwaZulu-Natal, South Africa) aligning Umgeni Water’s planning initiatives with the planning of local, provincial and national government. She has fifteen years’ experience in the fields of spatial planning, water services planning, water resources planning and GIS. A professional town planner registered with the South African Council of Planners (SACPLAN), she graduated with her MTRP from the University of KwaZulu-Natal (UKZN) in 2008. She also has a Practical Project Management Certificate from UNISA’s Graduate School of Business Leadership, BSc Hons (Geography) and BSc (Geography, Chemistry) degrees from the University of Natal, Pietermaritzburg (now UKZN).

Amy Pieterse is a Candidate Researcher, working in the Spatial Planning and Systems competency area at the CSIR. During her time at the CSIR she has work on various projects which includes spatial analyses done within the Spatial and Temporal Evidence for Planning (StepSA) initiative to inform planning and investment decision making processes, and exploring spatial change in the South African population. She obtained a Bachelor of Town and Regional Planning, with distinction, from the University of Pretoria in 2013. Her research report focussed on providing a comprehensive synthesis of the current body of knowledge on internal labour migration trends in post-Apartheid South Africa, as well as identifying research gaps, needs and possibilities in this field. Amy’s other research interests include internal population dynamics, spatial planning, sustainable urban development and strategic planning.

Anneke (JI) Muller is a senior lecturer at the School of Public Leadership at Stellenbosch University, coordinating the Sustainable Development Planning specialisation of the Masters Programme in Sustainable Development, which is taught in conjunction with the Sustainability Institute. Besides BSc and MTRP (cum laude) degrees from Stellenbosch University, she also obtained a B Iuris degree (with distinction) from UNISA. She previously (1983 to 1997) worked for the Provincial Administration Western Cape in various sections, dealing with planning control, low income housing, planning legislation and planning policy. Her final position was as Chief Town and Regional Planner, tasked with rewriting planning legislation, where she was one of the co-authors of the Western Cape Planning and Development Act no 7 of 1999. At Stellenbosch University, she taught on the MTRP programme, before helping to develop the present Development Planning degree, with a focus on sustainable development. From 1993 to 1999 she was a member and later the chairperson of the Western Cape Branch Committee of SAPI. She is also registered as a Professional Planner with the South African Council of Professional Planners. Her specialty research areas include planning law and policy, land use /development management and flexible zonings, sustainable development and sustainable human settlements, planning processes, illegal land invasions & informal and low income housing.
Aurobindo Ogra is a lecturer at Department of Town and Regional Planning, University of Johannesburg, South Africa and specializes in Masters in Urban and Regional Planning and Masters in Business Economics. Mr. Ogra carries more than 14 years of professional experience in municipal governance and reforms, local development, urban and regional planning, tourism infrastructure and planning, and capacity building. He has been involved in multi-sectoral urban projects and handled key assignments in urban planning, governance and tourism sectors. Some of his key project involvements include: National Spatial Planning Data Repository (NSPDR), e-Governance project, National Urban Renewal Project, Tourism Infrastructure Road Map, and Municipal Reforms Project. Mr. Ogra is a Certified GIS Professional (GISP) from GISCI, USA. He has been a recipient of DiploFoundation Scholarship on Internet Governance and Capacity Building Programme (IGCBP 2011) and ACP/EU ICT Policy and Strategic Planning (Internet Governance), Urban Habitat Forum (UHF) Fellowship, India (2009) and Local Government & Public Service Reform Initiative (LGI) Fellowship, Open Society Institute, Hungary (2008-09), and Provention Consortium Grantee, World Bank (2003). His research focus areas include: Municipal Reforms, Urban and Regional Planning, Urban Development, Local Governance, e-Governance, Geographic Information Systems, Tourism Infrastructure, Project Development & Management, and Capacity Building. He has published and presented more than 25 thematic peer reviewed papers in national and international conferences, and is serving as an Editorial Board Member / Reviewer in selected national & international journals, and conferences.

Ashley Hay is a Professional Town & Regional Planner with 12 years of working experience in both Provincial and Local spheres of Government. He is currently employed at the uMshwathi Local Municipality (KZN) and has held various positions within the Office of the Municipal Manager. His research formed part of the Master’s programme at the University of the Free State under the supervision of Dr. Maléne (M.M.) Campbell with the result being a publishable article which focused on the limited capacities of housing units within (particularly rural) municipalities to implement the country’s housing policy. Because sustainable human settlements are at the fore-front of service delivery in South Africa, it is the intention of Mr. Hay to continue with this research into doctoral studies. Other activities within Mr. Hay’s scope of work at the Municipality include, working with communities on development issues, processing housing development applications, providing comments on housing layout plans in terms of spatial planning and, providing recommendations to the Municipal Council to take informed decisions on development and other matters.

Cecilia Njenga is an Urban and Regional Planner and Spatial Economist with extensive international, African and South African experience in the field fields of urban planning, environmental management, Green approaches and Public/Private Partnerships.

Darren is an assistant lecturer at the University of Pretoria’s Department of Town and Regional Planning, where he previously earned his Honours Degree in Town and Regional Planning. He is currently busy with his Masters in Town and Regional Planning which is focused on understanding cities as complex adaptive systems and how they change. His master’s forms part of the University of Pretoria’s broader research project on Urban Resilience.

Dr. Adebayo, P.W. is a Senior Lecturer at the Disciplines of Housing, University of Kwazulu Natal, Howard Campus Durban, South Africa.

Dr. Elizelle Juancee Cilliers is a Senior Lecturer at the North-West University Urban and Regional Planning and international researcher for Wageningen University in the Netherlands. She is registered as a professional planner. She obtained her PhD Urban Planning in 2008 and completed an additional master’s degree in Economics in 2010. She is a NRF rated researcher.
Dr. Maléne (M.M.) Campbell is a professional Town and Regional Planner with 30 years’ experience. She worked both in private and public sector and has been teaching at the University of the Free State for the past 18 years while doing research. Her research focuses on planning for housing and addresses the spatial challenges of housing for low-income families.

Dr. Costanza La Mantia is a registered architect and planner in Italy and a corporate member of the South African Planning Institute. She holds a PhD in Urban and Regional Planning from the University of Palermo (Italy). She has extensive experience on the African continent, having lived and worked in Egypt from 2007 to 2012; Kenya in 2011; Rwanda from 2012 to 2013; and South Africa from 2013 to present. Previously, she has taught at Aim Shams University and American University in Cairo (Egypt), and the Kigali Institute of Science and Technology (Rwanda), contributing to shape a new curriculum in architecture. In July 2013 she joined the NRF-SARChI as Postdoc Fellow in the project Resilience Assessment for Sustainable Urban Development, with the task of working on the linkage between urban governance and urban form within the urban resilience framework. She teaches urban design in the urban planning degree programme at the University of the Witwatersrand.

Dr. Dillip Kumar Das is a Ph.D in Urban and Regional planning having a B.Sc. Eng (Hons) in Civil Engineering and Master of City Planning degrees. Currently he is engaged in teaching, research and community engagement activities as a Senior lecturer in the Department of Civil Engineering of Central University of Technology, Free State, South Africa. Also, while in academics he has worked in different Universities of India and Ethiopia prior to joining his current position. Before joining academics in 2001, he has worked for several years as an Engineer and planner in the Consultancies and in the Government sector in India. He has taught and guided both undergraduate and post graduate students of Civil Engineering, Civil and Urban Engineering, and Architecture and Urban Planning. He is active in supervising Master and Ph.D students. He has also supervised doctoral students under Southern African Young Scientist Summer Programme (SA YSSP) 2013-14. He has worked in various research projects in the areas of sustainable urban & regional development, and transportation planning. At present he is leading a research group on Sustainable Urban, Roads and Transportation at his current university. His research and consulting interests under sustainable urban and regional development include systems analysis, system dynamics modelling, infrastructure planning, green cities, smart cities, transportation planning, and tourism development. He has co-authored two books as the lead author on Planning for Regional Tourism Development and Planning for balanced regional development, and also published several peer reviewed research articles.

Dr. Mutakela Kingsley Minyoi has an Advanced Diploma in Urban and Rural Planning from then Ardhi Institute (now Ardhi University) in Tanzania, a BSc in Urban and Regional Planning from the University of Botswana, MSc in Housing Studies from Oxford Brookes University in UK, and a PhD in Urban Planning and Management from University of Dar es Salaam in Tanzania. He has practiced as a Town Planner for 5 years in central government, and is currently lecturing at the University of Botswana in the Department of Architecture and Planning. His key research area is settlement development planning and teaches modules on layout planning, planning theory and history of settlements.

Dumisani Mhlaba is a practicing professional architect and the founder of Dumisani Mhlaba Architects, with over twenty years of experience in the field of architecture. His formal qualifications include a National Diploma in Architectural Technology, Bachelors Degree in Architecture, Postgraduate Diploma in Architecture, Research Masters Degree in Architecture and currently studying towards PhD in Architecture. Mr Mhlaba’s vocational background in architecture includes an extensive experience in the public sector with KZN Public Works as a Senior Architect, eleven years in academia with the University of KwaZulu-Natal where he served as a lecturer, researcher, postgraduate supervisor and various administrative positions in various years including a position of a Head of Discipline. He is actively involved in the studies of indigenous African Architecture both in research and practical explorations in his business practice, as
his main academic interest in the discipline. He has traveled extensively to inform this specialized interest. Mr Mhlaba’s active involvement in other non-professional organizations includes KwaZulu-Natal Heritage Council (Amafa akwaZulu-Natali). He is also the founder of Family LifeLine SA (NPO).

**Dumisani Ndaba** is a registered Candidate Planner with the South African Council for Planners and is also a corporate member of the South African Planning Institute. His professional interests are in applying practical planning principles for land use; management, development and control. This is his first publication.

**Elsona van Huyssteen** is an urban and regional planner and researcher, associated with the CSIR (National Research Council) and University of Pretoria in South Africa. She has been actively involved in the development of spatial planning policies, instruments and processes in support of collaborative national, regional and municipal planning. Over the last number of years her focus has also included decision-support for municipal, regional and national planning processes and investment through the analyses of urban and rural spatial trends and dynamics. She has a passion to find innovative ways to support key actors and institutions in this field and has been actively involved in planning practice and capacity building through her career.

**Eric Makoni** is a lecturer in the Department of Town and Regional Planning at the University of Johannesburg. Eric holds a MSc. (Development Planning) and BA (Political Science and Media Studies) degrees from the University of the Witwatersrand, Johannesburg. Between 2006 and 2012, he worked as a development planner and consultant in the public sector, focusing on intergovernmental development planning processes, intergovernmental relations (IGR) and local economic development. Eric continues to advise municipalities, provinces and national departments on the formulation, alignment, implementation and review of intergovernmental planning instruments; i.e. Integrated Development Plans (IDPs), Provincial Growth/Spatial Development Strategies (PG/SDS), and the National Development Plan (NDP).

**George Okechukwu Onatu** is a Lecturer in the Department of Town and Regional Planning, University of Johannesburg and the Head of Department. He is an academician with wide interests. He is also a Consulting Town and Regional Planner. Formerly, Senior Town Planner, Gurney Planning and Design (Pty) Ltd, Parkview, Johannesburg. He worked with a Multinational Corporation Texaco/Caltex for many years. He is a versatile reader and has made meaningful contribution to academic research publications.

**Gerbrand Mans** has more than 11 years’ experience as researcher and GIS professional, first at Stellenbosch University and now at CSIR. A major focus of the work Gerbrand is involved in centres on the study of population types, their dynamics and how these vary geographically. Geo-demographics is therefore a key focus area in terms of experience and also personal interest. Other fields of experience and interest are the use of dasymetric mapping and areal interpolation in order to breakdown large area data to smaller geographical units. These techniques are useful to do accurate accessibility analysis and are also strongly related to the field of geo-demographics. Broader interests are in the field urban geography, but with a specific focus on the linkages between urban and rural environments from a human activity point of view.

**Hunadi Mokgalaka** is a Candidate Researcher within the Regional and Urban Planning Research Group of the CSIR Built Environment Unit. She holds an honours degree in Geography and GIS from the University of the Witwatersrand. Since joining the CSIR Hunadi has been involved and contributed in a number of projects in the fields of accessibility analysis, service access planning, developing facility standards and mapping social facilities which provided planning support to government departments. Recent examples include The Geographic Accessibility Study Of Social Facility And Government Service Points For The Metropolitan Cities Of Johannesburg And eThekwini For DPSA, GIS-Based Planning Support System For Provincial Government Western Cape, Analysis Of Early Childhood Development.
Facilities Within The City Of Cape Town And GIS-Based Sport Facility Planning Support System For The Provincial Government Western Cape Projects. She is currently pursuing her Masters degree with the University of Cape Town which focuses on GIS-based accessibility analysis as an approach to determine public primary health care demand in South Africa. Other fields of interest include population dynamics and interaction in regional and urban spaces, geo-demographics, geo-database development, land use modelling and dasymetric mapping.

James Chakwizira is Head of Department: Urban and Regional Planning in the School of Environmental Sciences at the University of Venda in South Africa. James Chakwizira is an experienced spatial & transportation specialist who has consulted on national and regional projects/programmes in Africa, Asia and Europe. He has published, taught at universities in Southern Africa, practiced in both the public and private sector leading multidisciplinary teams and units concentrating on transportation, spatial development, sustainable development, climate change, appropriate technology and sustainable human settlements. James Chakwizira’s passion is to continuously provide thought leadership in the application of new knowledge and technological innovations in order to resolve the challenges of the marginalised and disadvantaged communities/societies inhabiting the built and non-built environments of Africa.

Johan Maritz is a senior researcher at the CSIR’s Built Environment Unit – he is a town and regional planner by training and holds a masters diploma from the University of Dortmund, Germany. His background includes experience in the research of land use planning, public transport modelling, accessibility and interaction modelling, geographic information systems (GIS), decision support systems, geo-portal development and implementation and web map applications. He has undertaken various geo-spatial projects and contributed to many more as a project team member. More recently he has also become involved in rural service system design and development and this has led to projects that focus on rural transport- and logistical challenges. He is currently busy with his PhD focusing on the impact of Information and Communication Technologies (ICT) on rural accessibility at Utrecht University.

Johan Olivier is a qualified and registered town and regional planner with 21 years’ experience in local government as well as the private sector. He is currently directing in a private development consultancy: Akanya Development Solutions. More recently, Johan has become involved with rural development plans (small town regeneration) that include community investment plans and economic development strategies combined with interventions to address spatial constraints in community development. Johan is also director of a newly established non-profit company: Ranyaka Community Investment Managers.

Keledi Rammapudi is a graduate of the RTPI accredited BSc/MA (Professional) Urban and Regional Planning programme at the University of Botswana. She is currently employed as a Physical Planner at Gaborone City Council.

Magdeline Tsotetsi (Maggie) is a qualified and registered candidate town and regional planner. In 2011, she was employed at a private development consultancy: Akanya Development Solutions as junior town planner. Early February 2012 Maggie became co-director of a non-profit company: Ranyaka Community Investment Managers. Ranyaka is a social business that designs, implements and manages integrated development programmes in partnership with communities, governments and private sector entities.

Miriam M. Maina is a Town Planning researcher from Nairobi, Kenya. PhD student at the She is currently pursuing a PhD in Town and Regional Planning at the School of Architecture and Planning, University of the Witwatersrand in Johannesburg, exploring the role that Spatial Planning has played in the past few decades in shaping the economic geography in Johannesburg.She has a BA Degree in Urban and Regional Planning from the University of Nairobi and an MSc in Town and Regional Planning from the University of the Witwatersrand. Her research interests include urban planning policy in Africa. Her Master's research explored the challenges facing informal settlements policy shifts in South Africa and Kenya. In 2009-2010,
Miriam worked as a research associate at the Urban Innovations Project, Department of Urban and Regional Planning, University of Nairobi. Her work included project management and research on informal settlements in Nairobi. This work in Nairobi's informal settlements, and with various non-governmental and community based organizations triggered her interest in state-led informal settlement intervention.

**Nicholas Pinfold:** Masters Degree in Urban and Regional Planning - University of the Free State. B Honours Spatial Planning - University of the Free State. B.Tech (Baccalaureus Technologiae) Surveying - Cape Peninsula University of Technology.

**Okesoto, J. Oyebamiji** is a registered Town Planner, a Principal Lecturer in the Department of Urban and Regional Planning, Yaba College of Technology, Yaba- Lagos, Nigeria and currently reading for his PhD in the Disciplines of Architecture, Housing and Planning, University of Kwazulu- Natal, Durban South Africa.

**Olumuyiwa Adegun** is a Doctoral candidate at the School of Architecture and Planning, University of the Witwatersrand, Johannesburg. He has a Professional Master’s degree in Architecture from the Federal University of Technology, Akure and a Master of the Built Environment (Housing) from the University of the Witwatersrand. 'Muyiwa worked with some architectural firms and a real estate development company before his appointment as a lecturer at the Joseph Ayo Babalola University in Nigeria. In 2013, he spent time in Berlin as part of the Johannesburg-Berlin Robert Bosch Stiftung-funded [in]formal city exchange. His on-going doctoral research is looking at green infrastructure in informal settlements in Johannesburg.

**Omolabi, A.O.** is a PhD candidate at the University of KwaZulu Natal Durban, South Africa. He obtained a Bachelor of Science Degree in Geography with Second Class Upper Grade at the University of Ibadan, Nigeria, and Master of Philosophy in Environmental Planning, from the University of Reading, England. His research interests are housing and informal settlement. He worked as an Urban Planner Specialist at the United Nations Development Programme, Ethiopia. He has published in many International Journals and presented papers in many international conferences. He has edited and authored many books including Millennium Development Goals and Poverty Reduction: Issues and Constraints: A 230 page Book of Readings. He has won many national and international awards including Nelson Mandela Life Achievement Awards by African Update International Magazine, Accra Ghana, and August, 2011.

**Prof Das Steyn** did B.Arch. as a first degree and was in private practice since 1973. Did a MURP at UFS and worked as a town planner at Peri-Urban Board in Transvaal. Studied M. Arch. in Urban Design at the University of Toronto in Canada. Senior Researcher at the Human Science Research Council on Housing before starting as a lecturer at the Free State University in 1980. Did research for my Ph. D. at the Technical University of Eindhoven under prof. Herdrik M. Goudappel on whose work I later edited two books that were also published in The Netherlands when Goudappel was knighted as member of the Order of Oranje-Nassau in 2010. Went through the ranks and retired as professor and head of the department in 2009. Was visiting professor at the Catholic University of Leuven and visiting researcher for several sabbaticals in The Netherlands? I am editor of the accredited journal Town and Regional Planning. Have done a large number of project, private and government related. Published numerous peer reviewed articles, conference proceedings at national and international conferences as well as research projects.

**Prof Dhiren Allopi** is the Associate Professor/Director in the Department of Civil Engineering and Surveying at the Durban University of Technology. He has five qualifications from four different tertiary institutions, including a Doctorate Degree in Civil Engineering. Prof Allopi has over 35 years of combined industrial and academic experience, mainly in the field of Geotechnical, traffic and transportation engineering. Dhiren has over 80 conference proceedings and journal papers to his credit. He is professionally registered with the Engineering Council of South Africa and is a fellow member of the South
African Institute of Civil Engineering. He has lectured to diploma and degree students and currently supervising ten postgraduate students mainly in the field of traffic and transportation engineering.

**Prof. Karina Landman** is the Associate Professor at the Department of Town and Regional Planning at the University of Pretoria in South Africa. She holds a Bachelors and Honours Degree in Architecture, a Master’s Degree in Urban Design and City Planning and a PhD (Urban Design). Karina has extensive experience related to urban and spatial transformation, crime prevention in the built environment, housing and sustainable development. Other areas of research include the privatisation of urban space, services and local governance; gated communities, urban segregation, medium density mixed housing developments; and sustainable development and urban resilience.

**Reabetsoe Mpe** is a young female Town Planner from Polokwane and currently residing in Johannesburg. She is a final year BTech – Town and Regional Planning student at the University of Johannesburg. She is a student member of SAPI and a member of the school committee called Forum of Planning Students (FOPS). Her interest and passions in the built environment field are mainly centred on the complex issue of informal settlements and housing. Her ambition is to make an impact and a difference in the field of Town and Regional Planning nationally and globally.

**Robert Ndebele** is currently pursuing a Bachelor of Technology (BTech) in Town and Regional Planning at the University of Johannesburg. He is currently involved in a number of research activities which cut across various domains. He has also completed two short courses in urban transport planning and low emissions development through the World Bank Institute. His main interests include issues that touch upon transport planning, geographic information systems, and sustainable development.

**Sarbeswar Praharaj** is an Urban Planner holding Masters Degree in Urban Planning (Housing) from Faculty of Planning and Public Policy, Centre for Environmental Planning and Technology (CEPT) University, India. He is presently working as Assistant Professor and Head in Department of Urban Studies and Planning, Lovely Professional University, Punjab, India. The author’s research interests include urban regeneration, inclusive urban development strategies and urban sector capacity building. He has embraced the role of an Adviser to CEPT University, Ahmedabad for World Bank sponsored project in Varanasi - “Inclusive Heritage based City Developed Programme”. He can be reached at sarbeswar.praharaj0905@gmail.com.

**Shian Hemraj Saroop** is a professional civil engineering technologist for Royal Haskoning DHV in Durban, South Africa. His experience covers a wide variety of infrastructure development, namely: design of roads, sewer, storm water, water, and earthworks. He holds an M-tech in civil engineering. His field of specialization encompasses “Green Township infrastructure Services”. His energies are increasingly channelled into the areas of sustainable infrastructure development, using greener design solutions on Township services projects. He has also undertaken a number of innovative infrastructure projects using innovation products and design technologies that has rarely been used in South Africa.

**Simon Nicks** is Managing Director of CNdV Africa with qualifications in commerce, architecture, urban design and planning and nearly 30 years' experience beginning with the Cape Town City Council before moving to the private sector. Simon’s core philosophy is a belief in design-led solutions to urban and rural problems. He has presented over 20 conference papers, written book chapters and received national and international awards for his work. He is a professionally registered planner, urban designer and environmental assessment practitioner, and has sat on the national council for SACAAP, the Western Cape Planning Advisory Board and the Association of Consulting Town and Regional Planners of which he was chairperson. He currently sits on the Western Cape committee of SAPOA and the Western Cape Property Developers Forum. International experience includes work and study tours to Curitiba and Sao Paulo in Brazil, Dakar, Nairobi, Harare, Rome and Zurich airports, Copenhagen and Los Angeles, San Francisco,
Portland, Madison, Chicago and New York to study recent advances in public and non-motorised transport in US cities. Simon has received a number of awards including the South African National Botanical Institute’s Fynbos Conservation award for 2009 and the Celebrating Strides 2010 award in the environmental category.

Sinovuyo Babalwa Sitinga is a final year BTech research student in Department of Town and Regional Planning at the University of Johannesburg. She is also registered as a Candidate Town and Regional Planning Technician with South African Council for Planners (SACPLAN): Candidate Planner: C/7504/2013 and working with Eastern Cape Department of Local Government and Traditional Affairs.

Sisa Maboza is an Urban Planner with experience in Town Planning and Railway Planning. He is currently employed as a Railway Planner by the Passenger Rail Agency of South Africa. He holds a Master of City and Regional Planning qualification from the University of Cape Town. His work experience started at Urban Dynamics Western Cape, where he worked as a Planner in Training and later as a Professional Planner and a Director. He joined PRASA in 2008, first as a Business Development Manager, then as a Corridor Densification Manager for Intersite, and currently as the Senior Manager for the Strategic Network Planning department. He has consistently and actively promoted the integration between transport planning and land use planning and he has maintained collaborations that seek to test this integration and improve it for the creation of better urban places within South Africa. Although based in Johannesburg, his current portfolio is national, allowing him the space to work with different municipalities across the country.

Sizwe Mxobo born and bred in the informal settlements of Cape flats, from Khayelitsha to Mkhonto Square in Nyanga. Growing up he has always wondered about community development and transformation. In 2011 Town and Regional Planning at the Cape Peninsula University of Technology. Sizwe Mxobo has been working with Community Organization Resource Centre since 2011. He is currently employed in the position of Junior Planner and provides technical Support for the organization, and has been involved in many aspects of slum upgrading at this organization from community mobilization, attending community meetings, capacity building, assisting settlements prepare development plans, engage City officials around service delivery and coordinate with consultants.

Thandeka Tshabalala is qualified in BSc (Hons) in Urban and regional Planning form the University of the Witwatersrand in Johannesburg. She currently works for the community Organisation resource Centre that is part of the SA SDI Alliance. Her role is providing technical support and livelihoods opportunities to communities.

Thulisile is currently a lecturer in the department of Urban and Regional Planning. She has a Master’s degree in Town and Regional Planning from the University of KwaZulu-Natal. She has lecturing experience on Social Justice Education and Community and Development Studies and has taught for the Advanced Certificate in Education, Bachelor of Education and Masters in Education, University of KwaZulu-Natal. She also facilitated and designed the Gender and Labour Studies Diploma Programme for the Workers College and has published on social justice facilitation as well as social justice in planning. Currently, she is a PhD research fellow with the Public Affairs Research Institute, University of Witwatersrand and is registered for her second year of her PhD with the University of the Free State. Thuli grew up in Lamontville Township, Durban, South Africa.

Willemien van Niekerk joined the CSIR Built Environment in December 2011 as a senior researcher in the Urban and Regional Planning research group. Past and current projects she has been involved in include the South African Risk and Vulnerability Atlas for the Department of Science and Technology, an Infrastructure Master Plan for the Mpumalanga Province, neighbourhood profiling for the South African Cities Network, developing an Integrated Transport Modelling Centre for the Gauteng Province, and developing future scenarios for the City of Ekurhuleni in the CSIR Water Sustainability Flagship Project.
Before joining the CSIR Willemien was a lecturer in the Department of Town and Regional Planning, University of Pretoria, where she lectured under- and post-graduate students in planning history, spatial planning and urban planning interventions. Willemien holds a master degree in Urban and Regional Planning from the University of KwaZulu Natal, and is busy with her PhD in Public Management and Administration at the African Centre for Disaster Studies, North West University. Her fields of interest are urban planning and disaster risk reduction.

Zenzile Mbinza is a lecturer in the Department of Town and Regional Planning at the University of Johannesburg. His current research is dedicated to the understanding of place-branding campaigns from a Gramscian counter-hegemonic perspective. He is also interested in the disambiguation of the status of the township (“ikasi”) in discursive place-making processes. He is a PhD candidate in the School of Architecture and Planning at the University of the Witwatersrand (Wits).
International Convention Centre (ICC), Durban, South Africa 
ISBN: 978-0-86970-781-4

Contact details: 
South African Planning Institute (SAPI) 
Johannesburg, South Africa 
Ph: +27-11-6557369 / Fax: +27-11-655-7011 
Email: info@sapi.org.za 
Website: www.sapi.org.za