



THE URBAN LAND PAPER SERIES

Volume 2

A Transit-Oriented Development Lens
Draft Papers

Acknowledgements

Project manager: Geoffrey Bickford

Editing by Write to the Point

Cover design by Ink Design

Cover illustrations by James Durno

Suggested citation:

SACN. 2017. The Urban Land Paper Series Volume 2:
A Transit-Oriented Development Lens. South African
Cities Network: Johannesburg.

Available online at www.sacities.net

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List of Acronyms

BRT	Bus Rapid Transit
CBD	Central Business District
CEPAC	Certificate of Additional Construction Potential Bonds (programme in São Paulo)
CID	City Improvement District
CLUE	Centre for Land Use Education
CoCT	City of Cape Town
COGTA	Department of Cooperative Governance
CoJ	City of Johannesburg
CoW	City of Windhoek
DDP	Department of Development Planning
DHS	Department of Human Settlements
GLM	Generalised Linear Model
HALA	Housing Affordability and Liveability Agenda
HISA	Housing and Infrastructure in Southern Africa
IDP	Integrated Development Plan
IPTS	Integrated Public Transport System
IUDF	Integrated Urban Development Framework
JDA	Johannesburg Development Agency
LBF	Land-Based Financing
LVC	Land Value Capture
NDP	National Development Plan
NMB	Nelson Mandela Bay
RDP	Reconstruction and Development Programme
SACN	South African Cities Network
SAPOA	South African Property Owners Association
SDF	Spatial Development Framework
SDZ	Special Development Zones
SERI	Socio-Economic Rights Institute of South Africa
SLF	Sustainable Livelihoods Foundation
SMH	Spatial Mismatch Hypothesis
SPLUMA	Spatial Planning and Land Use Management Act
Stats SA	Statistics South Africa
TOD	Transit-Oriented Development
TUHF	Trust for Urban Housing Finance
ULM	Urban LandMark
WCG	Western Cape Government

Introduction

Geoffrey Bickford (South African Cities Network)

Over the coming decades, urban areas are set to change dramatically: more people will live in cities, and will require more houses and services, public transport, jobs, and places of recreation and learning – all of which take up space and need land.

In South Africa, cities also need to transform spatially, to address the legacy of apartheid planning. This deep desire to change how the urban space is structured and ordered is found in policy documents and strategic plans, with the Integrated Urban Development Framework (IUDF) clearly emphasising land governance and management as one of the critical levers for achieving transformation in our cities.

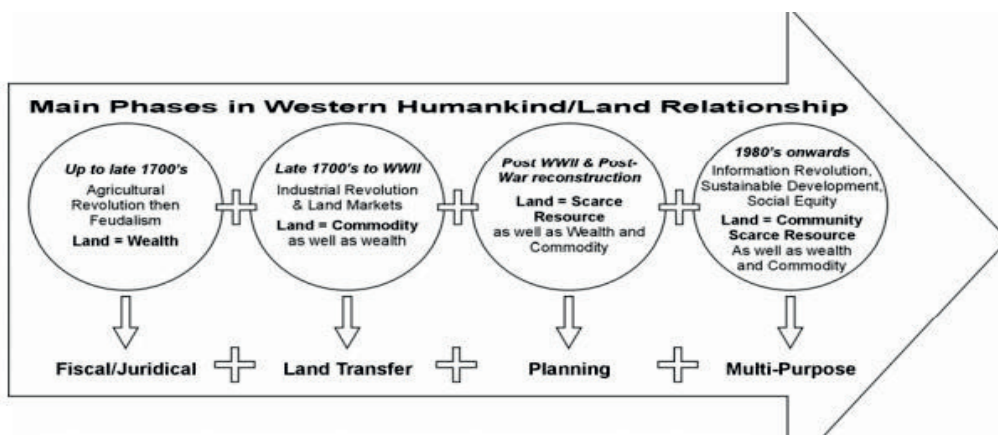
The first volume in The Urban Land Paper Series began the conversation about urban land within the context of achieving spatial transformation in cities. It looked at the role of municipalities within the transformation agenda and attempted to provide insights that would enable cities to better understand the land issues. Each paper approached the urban land issue through a particular lens in order to understand the often-conflicting perspectives. This volume uses the lens of transit-oriented development (TOD) to explore various land questions facing cities because TOD is unequivocally urban in its nature. It has become a central component of the integrated urban development agenda, promoted in the National Development Plan (NDP), IUDF and a fundamental part of many cities' integrated, spatial and built environment development plans.

Understanding Land Systems

Although South Africa has to deal with the effects of apartheid planning on its cities, the truth of the matter is that land inequality and exclusion is a global challenge. The current tenure and administrative systems that govern land in South Africa are adopted constructs, which were exported across the globe through the colonial project. Cadastral systems paved the way for delineated titled ownership that allowed for land to become a tradeable asset. In this way, land is the cornerstone of the modern world economy – an economic and productive asset. Land governance systems are designed to promote economic development, which has led to land being referred to globally as a complex commodity (Figure 1.1), and are increasingly a driver of exclusion and inequality in societies.

Colonialisation in South Africa meant that these same systems underpin the way in which land is administered. The racist legislation dating back to the Land Act of 1913 are considered the main issue, whereas the general cadastral and land administrative systems are seen as effective. Yet the reality is that the underlying system of land governance was always set to deliver inequality and exclusion because its aim was economic, not inclusive, development, with limited appreciation of the social exclusion consequences of those unable to own and access land. As economies have become more sophisticated, land has become more complex in its role, further exacerbating the global divide. Over time, governments have intervened piecemeal to address the exclusionary nature of the current land governance systems rather than the land markets.

Figure 1.1: Land administration response



Source: Ting and Williamson (1999)

Land as a complex commodity

Land is a complex commodity, confounded by societal and administrative constructs (Napier, 2007). It is complex because it has moved from being a simple tradable asset to being used as security for accessing financial markets and deriving abstract value based on rights. This means that land as a complex commodity exists uncomfortably in the many countries where access to land is considered a basic human right. The reality is that the proliferation of land as a commodity has occurred at the expense of providing equality of access.

Is land as a complex commodity “too big to fail”? Some support the “move-with-the-times” approach of rethinking the land cadastral system, so that it can be better equipped to support the complex and dynamic nature of land markets (Williamson, n.d.). This can be done by providing e-governance and information in a manner that allows for more transparent information. Others advocate a fundamental rethink of the land governance laws, by changing the land title and ownership system to allow for improved redistribution of benefit.¹

Land markets are exclusive

The complex commodification of land means that those who own land can generate significant wealth through production or leveraging the land. The cornerstone of land’s tradability is ownership and its associated rights, which is most evident in the most densely populated urban centres on Earth. This results in land markets that are the exclusive domain of the wealthiest people in society – in South Africa the land market is exclusionary (Napier, 2007) based on race, as racial laws governed which race groups could own and access land. Land’s ability to generate wealth is one of the primary reasons for societies around the world promoting and adopting Western land cadastral and tenure systems. In the developing world, countries and cities are encouraged to develop an updated cadastral system and land register, as an essential basis for economic growth and development (Lall et al., 2017).

However, many analysts and commentators are unconvinced of the ability of the Western land tenure principles to address the economic struggles and inequality that plague much of the developing world. For example, Piketty and Goldhammer (2014) show how the market principles underpinning capitalism have exacerbated, rather than improved, inequality levels across the world. A core aspect is the growth of intergenerational wealth for owners of capital, of which land is a component. Those who own valuable land have become disproportionately wealthier over time, while those unable to access land markets have become, relatively speaking, poorer.

Land tenure and administrative systems are fluid

As Figure 1.1 Illustrates land administrative systems have always developed and evolved to support particular societal interests (Du Plessis, 2011; Williamson, n.d.). These systems are man-made and do not exist in and of themselves. Therefore, is it not conceivable to imagine a different land tenure and administrative system that could better serve the imperatives of inclusive access and security of tenure? For instance, in the pre-colonial African indigenous land tenure systems, the notion of ownership was very limited. Land was the basis for community building and responsibility, as “the relationships between people were more important than an individual’s ability to assert his or her interest in property against the world” (Du Plessis, 2011: 49).

Now is perhaps an opportune moment to consider the type of land systems that could better carry South African policy objectives into the future. The starting point is to acknowledge that the current system is flawed and unlikely to provide ownership benefits to all in society – as shown by the provision of title and security of tenure over the past 20 years. Much has been written about the power imbalances of those who own property, and the natural instinct would be to level the playing field by getting as many people as possible to the same ownership status. However, this end state is unlikely, as the system is broken: the power to access and control more land lies with those who already possess the most valuable land. Not all land is created equal, which is why urban land plays such a critical role in thinking through a land reform agenda.

¹ Swann (1976) anchored the idea of land trusts as an alternative to ownership.

The Urban Land Question is Central to Cities

In the post-apartheid era, the focus has been more on rural than on urban land transformation (SACN, 2015). The urban land question has not received much attention, and little has been done to alter the structure of urban land relations. Yet land lies at the heart of all the projected and desired changes in urban centres.

The exclusionary nature of urban land markets plays out in the form of poor settlements located on cheaper peripheral land; the homelessness of people working informally in urban centres who are unable to find appropriate shelter; strains on infrastructure and management capacity, as densities exceed their design capacity; and increased vulnerabilities, when people are unable to gain secure tenure. These are not technical outcomes but rather lived realities.

City governments are responsible for dealing with the consequences of such exclusion and yet are bound by the parameters of an existing land tenure and administrative system. The country's land policy and land tenure and administrative systems fall within the realm of national government and the political-economic outlook, and are beyond the mandate and control of city governments. Nevertheless, as crucial actors in shaping the urban development agenda, city governments have some tools to intervene in the functionality of urban land markets.

Typically, city governments use their planning and infrastructure power to design policy interventions and investment programmes that can alter the status quo towards a more inclusive intent. Their planning tools and infrastructure investment provide the mechanisms through which to intervene in the functioning of the land market. The IUDF identifies efficient land governance and management as a critical lever to achieve urban transformation (COGTA, 2016) and notes the importance of municipal interventions. Effective implementation is crucial, as municipal interventions could result in a more inclusive urban land market or lead to market distortions that make matters worse (Napier, 2007). For many municipalities, TOD is the "flavour of the month" for planning and delivering infrastructure in an attempt to shift land market functionality, albeit within the confines of existing land systems.

Transit-oriented development

The current emphasis on TOD, found in many of the large South African cities, is arguably the latest response to packaged planning and infrastructure investment to create spatial change. TOD is a term coined in North America but is based on principles of cities and towns that were developed before the widespread availability of the private vehicle. In North America, the TOD movement's primary purpose was to combat the high levels of private vehicle use by building neighbourhoods where people could use public transport as the means to get around. The model typically involves developing high-density housing mixed with retail, commercial, educational and recreational land uses. For TOD to be effective, the public space needs to prioritise pedestrians and buildings close to public transport stations. These normative principles of TOD contradict the current urban growth logic of cities, where private vehicle access is a primary consideration.

However, in South Africa, the challenge is not to combat the widespread use of the private vehicle but rather to improve the quality of life for the majority who are already using public transport, largely because they have no other choice. Within the broader urban policy context, TOD in South Africa is committed to driving inclusive growth opportunities.

Much of the international TOD experience demonstrates a reliance upon land as a complex commodity. Sophisticated land-based financing instruments are used to develop public transport infrastructure, and land development processes rely on the land tenure and administrative systems that feed wealth creation. Therefore, it is unsurprising that the international experience of TOD indicates a struggling ability to accommodate the poor (Bickford, 2015). The inability of TOD programmes to include poorer, marginalised groups in society is a vital concern for South Africa. This volume of papers provides a useful opportunity to reflect on the land challenges and opportunities associated with the TOD agenda in relation to inclusive development imperatives.

Importantly, for this publication, the TOD lens provides an avenue to assess urban land issues from a municipal perspective. These papers are not intended to interrogate, comment or advance the substantive TOD agenda of cities but rather to draw on their concerted TOD efforts to unpack a series of urban land issues. The TOD agenda relies both on how urban land markets function and how municipalities implement the various planning and investment tools. The papers in this series aim to contribute towards a tangible understanding of urban land through a TOD lens.

Overview of Papers

The papers in this volume take a city perspective, and provide both a critical reflection of and a pragmatic response to what cities are able to do given their current mandate and powers. The first paper begins by considering what the TOD agenda means for the urban poor. It explores whether TOD can adequately address the existing land challenges in South African cities, given the politics of land inequality and the skewed property markets.

The next paper looks at land ownership patterns along one of the TOD corridors in Johannesburg to understand how land ownership could potentially shape development and spatial transformation. What emerges is an interesting perspective that highlights how, compared to the private sector, the public sector has probably not been an effective player in the land game of extracting value.

Several papers then engage with the notion of land use management as a critical tool for municipalities to intervene in the functioning of land markets in cities. The Spatial Planning and Land Use Management Act – a game-changing piece of legislation – argues for spatial justice. One paper, based on research done by the Socio-Economic Institute of South Africa (SERI), looks at spatial mismatch in South African cities, using Johannesburg as an example of how the spatial justice principle might be achieved more effectively. The next paper looks at the concept of proactive rezoning, or “upzoning”, as a tool that cities can use to better provide for inclusion in developments along public transport corridors. Using international examples, the paper demonstrates how upzoning could be used in combination with other planning tools in South African cities. Another paper explores the idea of using differentiated land use management approaches for different city contexts. It draws upon work done by the Sustainable Livelihoods Foundation on the Evelin Street rezoning approach in Windhoek, Namibia to make the case for cities to consider the power of zoning in transforming the economy of townships in South Africa.

The final paper in this series looks at land-based financing (LBF) within the realm of land as a complex commodity. Discussing the multiple values associated with land, it assesses the use of LBF approaches to drive inclusive development and explores what this means for cities.

The gaps

This paper series does not discuss in great detail:

- The politics surrounding urban land.
- The economic development strategies and opportunities involving land that the cities could explore.
- The type of institutional challenges that exist in building governance arrangements for more inclusive urban land management.
- The full range of legislative tools that cities have at their disposal, and how these could be more effectively utilised to produce inclusive outcomes.
- The role that land as a natural resource plays in protecting eco-systems and bio-diversity in urban areas, and what management tools and approaches are required. This is especially important when land is viewed as a tradable economic commodity, and so development potential is high in urban areas because of the return on investment.

These papers certainly do not provide the answers but seek to further develop the urban land discussion. These gaps are significant, and there is not much literature or commentary available in many of these areas. What is certain is that South Africa is expected to be 80% urbanised by 2050. Therefore, urban land issues require significant attention, and more scholarly and political debate. What is also required is a political and administrative appetite to explore urban reform of the structural underpinnings, while supporting cities to intervene in land markets for pro-poor outcomes, especially in those parts of the city that are currently (or earmarked for the future as) lucrative and valuable.

References

- Bickford G. 2016. Transit oriented development in the South African context: an analytical review of Johannesburg's recent urban policy and strategy. A dissertation submitted to the University of Cape Town in partial fulfilment of the requirements for a MPhil degree (specialising in Transport Studies) in the Department of Civil Engineering.
- Du Plessis W. 2011. African indigenous land rights in a private ownership paradigm. *PER/PELJ* (14)7 :45–69. Available at: <http://www.saflii.org.za/za/journals/PER/2011/39.pdf>
- COGTA (Department of Cooperative Governance). 2016 Integrated Urban Development Framework. Pretoria: COGTA.
- Lall SV, Henderson JV, Venables VJ. 2017. *Africa's Cities: Opening Doors to the World*. Washington, DC: World Bank. Available at: <https://openknowledge.worldbank.org/handle/10986/25896>. License: CC BY 3.0 IGO.
- Napier M. 2007. Making urban land markets work better in South African cities and towns: Arguing the basis for access by the poor. Paper presented at *Urban Land Use and Land Markets*, 4th Urban Research Symposium, Washington DC, 14–16 May 2007. Available at http://urbanlandmark.org.za/downloads/4URS_2007_Paper_Napier_v3.pdf
- Piketty T and Goldhammer A. 2014. *Capital in the Twenty-First Century*. Cambridge MA: The Belknap Press of Harvard University Press.
- SACN (South African Cities Network). 2015 The Urban Land Paper Series Volume 1. Johannesburg: SACN.
- Swann R. 1976. Alternatives to Ownership: Land Trusts as Land Reform. Essay for Schumacher Foundation. Great Barrington, MA: Schumacher Foundation for a New Economics. Available at: <http://www.centerforneweconomics.org/publications/essays/swann/robert/alternatives-to-ownership-land-trusts-as-land-reform>
- Williamson I. [n.d.] The future role of the cadastre. University of Melbourne. Available at: <http://www.csdila.unimelb.edu.au/publication/conferences/The%20Future%20Role%20of%20the%20Cadastre.pdf>. Accessed 20 October 2017.

Interrogating Transit-Oriented Development in the Context of Urban Land Questions

Nomalanga Mkhize (Nelson Mandela University)

The transformation and reconstruction of South Africa's cities into just and equitable urban settlements continues to be a vexing area of urban planning. Fundamental to the challenge of re-designing cities is the problem of historically entrenched land use and ownership patterns that have perpetuated a racialised, "economic apartheid" logic in our cities. This is most visible in the contrasts between densely populated, unevenly planned informal settlements and townships versus well-developed, spatially cohesive, affluent areas. Tackling spatial fragmentation, mobility and socio-economic exclusion raises key political and economic questions relating to access to, availability and spatial distribution of urban land.

Transit-oriented development (TOD) is one of the spatial planning approaches being explored to overcome the economic and social impact of this spatial unevenness. TOD promotes mobility and access across city zones, enabling permeability across class and economic barriers, so that cities can become more inclusive and integrated. The term TOD is used to describe "dense, mixed land use, pedestrian and cyclist priority precincts that are inextricably linked to public transport systems" (SACN, 2014: 8). The key elements are efficient and reliable integrated transport systems, densified mixed-income and mixed-use residential nodes, characterised by pedestrian and cycling traffic and the concomitant decrease of private motor cars (Bickford, 2014).

Planning through a TOD framework recognises that well-developed public transportation interventions remain a core element of spatial transformation, and must be central to planning in order to avoid "a future characterised by further segregation, inequality, inefficiency and deprivation of access" (SACN, 2014: 2). To this end, "metropolitan municipalities have promoted transit-oriented development (TOD) as a way to achieve spatial restructuring". (ibid: 8). And yet the uptake of TOD has been limited in South Africa, with transport systems continuing to be characterised by privatisation and individualisation, and "private vehicle-based access still seems to be driving development processes and decision making, often working in direct contradiction to planning intent" (ibid: 8).

It could be argued that the constraints facing TOD relate precisely to the political history of land in South African cities, where political and social expectations around space are still driven by exclusivity and class and racial segregation. While TOD strives to break down spatial unevenness by enabling greater efficiencies between transport usage and land use, it is important to recognise that urban land is a question of both power and fundamental survival, as Mammon (2011: 2, 3) argues

The link between power (over resources including land as a non-renewable resource), land and land planning has not been properly addressed in South African cities. [...] In modern cities, including most large and medium sized South African cities; the urban poor have been systematically alienated from the land through forced removals, displacement and economically induced relocation. Yet, land provides terra firma for rich and poor alike and without universal access (that is access for every person) to land there is little hope of survival as a society.

The politics of land inequality – both past dispossession and present struggles for access – continue to dominate our urban areas. Urban social movements, such as Abahlali baseMjondolo, and political organisations, such as the Economic Freedom Fighters, have placed the problem of land squarely in the middle of South Africa's economic and urban political challenges. TOD approaches must contend with the dynamic interplay of land hunger, land inequality and skewed property markets. This paper critically engages the TOD framework within the context of the existing land challenges in South African cities, exploring whether it can adequately address the political questions and expectations around the land question that have emerged so strongly in public debate.

TOD, Land Questions and Property Relations

The intent of mobility-centred planning is to leverage the human movement dynamic as a catalyst and driver of urban development. As such, there is a relationship between mobility itself, and the way in which spatial development unfolds in what theorists call the "transport-land use feedback cycle", which is basically "the understanding that any transport intervention provides and prioritises a certain level of accessibility, which in

turn leads to a particular land use response” (Bickford 2016: 12). In situating transport within spatial development, transport and land use are mutually dependent (ibid). The way in which mobility shapes land use and land access is core to urban planning because “[L]and fulfils a number of needs and uses at a local level”, including “public transport and human settlements, which both play a critical role in shaping the morphology of towns and cities” (Joseph et al., 2015: 2). Therefore, it is crucial to recognise that urban planning is confronted with land questions, both in the physical sense (as land scarcity) and, more crucially, as political contestation around access and ownership. This requires that urban planning formulates both practical and political solutions, especially relating to the skewed property relations in South Africa (Mkhize, 2015: 5).

the racial dimensions to landholding mean that urban land has been a largely white intergenerational asset for much of the country’s history. This landholding pattern forms a gridlock of vested interests around urban land. The urban space is largely viewed as the domain of ‘private property’ and commercial business development.

Ostensibly, TOD aims are to tackle inequality by reducing urban sprawl and maximising mixed land-use through integrated transport and densified settlements. Yet this assumption needs to be nuanced by localised conditions (Bickford, 2016; Wilkinson, 2006). In the first instance, private motor vehicles are not the cause of spatial fragmentation in South Africa. Spatial fragmentation is the result of a history of highly entrenched, state-driven segregation, and an outcome of apartheid spatial planning that is reinforced by social attitudes. Thus, using TOD to contain and reverse urban sprawl based on the assumption that the private car enables sprawl misses the prevailing social imaginary about where people live and where sustainable and meaningful economic opportunity eventually develops.

In post-apartheid South Africa, historical racialised urban fragmentation has morphed into a form of class segregation. A structurally skewed economy continues to drive value within land and property markets in cities. Unfolding patterns of private capital investment and economic aspirationalism drive new residential and commercial developments. As integrated transport systems piloted in Johannesburg/Pretoria (bus rapid transit (BRT) and high-speed rail) and Cape Town (BRT) tend to work most efficiently when serving limited population segments or geographical areas, they serve neither the residential nor commercial development needs of the majority of South Africans – the working and precariously surviving citizens who continue to find themselves using inefficient and dangerous travel (primarily taxis). Despite some “mixing zones”, transport in South Africa operates in a “dualistic manner” (Wilkinson, 2006: 228). This dualism is a product of a dualistic economic structure that reproduces the spatial unevenness. Thus, even the pilot integrated transport systems appear to add value where value has already been historically accrued. For example, although the Gautrain efficiently transports the middle classes into Park Station in Johannesburg, capital flight from the centre of the city has yet to be reversed. Quite simply, capital investment follows its chosen demographic.

The proximity of the Gautrain to high-value economic areas such as Sandton and Rosebank further accrues value to a new site of economic aspirationalism. This raises a critical dilemma between commerce and transport systems: (1) Should public transport investment lead to more value accrual in already existing sites of capital accumulation and what effect does this have on further skewing land and property values within South African urban space? (2) Should TOD investment aim to develop more localised nodes of economic production and consumption within townships themselves and, in so doing, would it reinforce the tendency of townships to be social and economic islands? Therefore, TOD approaches in South Africa must consider the implications of the “transport-land use feedback cycle” in the context of disproportionate land value accrual within commercial zones.

When thinking more broadly about inequality and political contentions around land in South Africa, the commerce-transport dilemma has to be dealt with in a redistributive and de-accumulative framework. This calls into question how value creation through public transport mechanisms is understood. In the context of inequality, value created by transport must be seen not only through the lens of economy, but also through the lens of sustainable access and use. The intent of transport carriage cannot be seen only as an economic facilitation, but as space redistribution. Private (real and imagined) fears about property values, crime and general urban decay underpin South African residential and commercial development, as shown not only by high walls and boom gates, but also by the high value residential estates that are exclusive from the very point of conception. Given that a major driver of South African land markets is creating high value property creation, “mixed-income” residential areas need to be more clearly defined, especially how such areas can come about in the South African context. Instruments such as land value capture, which are promoted as redistributive mechanisms, need to be interrogated given that the trajectory of land markets is towards continued inequality and affluence exclusivity.

Implication of TOD Framework for Schauderville, Nelson Mandela Bay Metro

Integrated transport systems have been piloted in some metros (with mixed success) but have struggled to get off the ground in other metros, such as Nelson Mandela Bay (NMB). The reasons for this relate primarily to partisan politics and the effect on governance within the metro. Be that as it may, the municipality has included integrated transport mechanisms in its long-term development outlook. Its 2016 Integrated Development Plan (IDP) states that “[t]ransit oriented development (TOD) is a priority of the City” and includes the aim of increasing densities from the current average of 20 units per hectare to “at least 30 to 40 units per hectare (gross) in new areas” (NMB 2016: 91).

Schauderville-Korsten is one of the areas included in the planned integrated zones and will “form part of the future backbone of the Khulani Corridor [...] the first route to be implemented in the Integrated Rapid Public Transport Network (IRPTN) [...] and by far the busiest corridor, attracting about 90 000 passengers per day” (Van Niekerk et al., 2014). Schauderville and Korsten are two areas that form a commercial/residential precinct within the former coloured-designated northern areas of Port Elizabeth, with Korsten having the lion’s share of industry and commercial activity and Schauderville being mostly residential. Like much of NMB, the area largely depends on minibus taxis.

Integrated transport systems would benefit the area but, given the socio-historical context of apartheid planning, understanding what implementing TOD could mean is crucial, particularly in relation to two TOD elements that have particular histories within the area: densification and integration of minibus taxis.

A history of densification

TOD planning presents densification as the method for localising development and creating commercial nodes. Yet apartheid coloured township planning was driven by densification from the beginning, and so densification within areas such as Schauderville-Korsten is far higher than in former whites-only areas: “Most of the former ‘white’ neighbourhoods have densities within the 1 to 10 du/ha category whilst in the northern areas, such as Bethelsdorp, Gelvandale and Korsten, the density ranges from 11 to 40 du/ha.” (Van Niekerk et al., 2014: 6). Therefore, increasing densification is likely impossible and raises questions of dignity and land inequality, given the lack of space that formerly oppressed populations were (and are) made to live under. The dignity of space has to be a consideration.

Schauderville-Korsten and other similar areas along the corridors earmarked for densification are already built up. Therefore, as the urban simulation carried out as part of the Cities Future Project found, “major densification may not necessarily occur [...] and developers may choose to build outside the corridors if they are able to realise a higher return on investment”, bringing into question “the potential success of the public transportation plans of the City” (Van Niekerk et al., 2014: 14, 17). Thus, existing densities owing to apartheid planning present problems rather than offer precedents for TOD solutions. The alternative is for cities to look at developing mixed-model transit modes in former white areas, where new housing-transport nodes have to be explicitly racially redistributive.

The NMB recognises the need for redistributive housing to address the city’s very fragmented property market, with separate markets “servicing the largely poor black communities of the North” and “the largely rich and mainly white communities of the South” (NMB, 2016: 355). The city aims to work with the private sector and to develop models of social housing. Of course, the crucial question is developing on which land, in proximity to which commercial zones and with what value intent.

Spatial integration and mobility in South Africa have a direct bearing on the access to economic and leisure opportunities. When new Reconstruction and Development Programme (RDP)-housing settlements are situated far from the urban centres, the cost of travel to access work and economic opportunities increases for the poor. As noted, transport is a crucial mechanism for integration, but how we think about transport as a means to achieve integration must take into consideration the existing patterns of value accrual. Providing transport networks can result in cash leaving the community, as Schauderville community activist Farouk Abrahams points out:

I don't think we should take money out of the community, keep it within the community so that we can develop more places by ourselves. The way the thing was structured in the past in the apartheid era is that you go out of your area to go work and earn money. Then you have this money, now you want us to develop transport just so you can take it out of the area and put it in the hands of the white capitalist.

For Abrahams, development policy should prioritise the entire economy, as transport fails to tackle the structural problems rooted in existing land inequality and poor local economies:

We should revisit the whole way the economy is structured because what is happening is it is psychological because we were made to believe that the nicer areas should have nicer shopping malls [...] We should be focusing on land and the economy. Transport will always be a part of our lives. So, we will always get to places by any means necessary. Whether it's the friend next door, the uncle up the street, we are going to make a plan; however, our focus should be on the economy and acquiring land so the land can be in the hands of Black people.

A counter argument is that this township economy approach only reinforces economic islands within the already segregated landscape, and that efficient, integrated transport could break down the invisible class barriers, by (for example), increasing the daily usage of the use of Summerstrand beaches by Black citizens of Port Elizabeth. Yet, as Abrahams points out, purchasing power accounts for why many of the city's poor do not visit the beach frequently – they cannot afford to go to the beach, “So even if you bring in a bus system that's going to cost R20 to go to Summerstrand, it will not help them because the R10 can buy bread. The beaches are available for all people, but the money is just not available to go”.

Summerstrand beachfront area is a high-value area that is favoured for high-end property investment. The high-end development in Summerstrand was initially propelled by the construction of a freeway in 1963. This “monstrous seven-lane elevated highway that bypassed the city to the suburb of Summerstrand, a small sparsely populated affluent neighbourhood” cuts through and bypasses what was once the central business district (Wasserman, 2014: 59). It is a disconnecting barrier that integrated transport alone cannot easily break down, as “community cannot occur in a severed urban landscape” (Wasserman, 2014: 21).

Grappling with South Africa's history of urban land inequality means recognising the interlocking historical, social, political, and infrastructural mechanisms that produce commercial and residential exclusivity, which in turn, further entrench unequal property relations which in South Africa, are largely racialised.

Negotiating integrating taxis

Minibus taxis remains the most important transport mode in the city – in 2014, NMB had 3200 minibus taxis, eight times the number of buses (Adewumi and Allopi, 2014). Although taxi work is an exploitative and grinding form of labour, it continues to provide unemployed men with income and taxi owners with livelihood autonomy. Intensifying competition between taxis on limited routes and delays due to congestion during peak hours result in more aggressive and reckless behaviour that endangers commuters (ibid: 3). The state-led Integrated Public Transport System (IPTS) threatens to undo established taxi businesses and their control over transport routes.

NMB established a cooperative structure for local taxi associations called Laphumilanga with aim of facilitating the integration of minibus taxis into the IPTS, by providing job opportunities to people previously employed in the industry (e.g. drivers, conductors, mechanics or car washers), and training for unskilled workers.² Negotiations to integrate the taxi industry have proved difficult, and in May 2017, “only four of the 10 taxi associations have signed the memorandum of agreement with the municipality thus far, while others have been reluctant to do so with the current fight over whether or not the associations should be represented by taxi cooperative Laphumilanga”.³

While minibus taxis pose many challenges to the effective upgrading of transport networks for the poor, even when implemented, BRT does not necessarily result in positive outcomes. Recently the Gauteng Provincial Government pronounced that its inner-city BRT system has been a failure, with its Transport MEC Ismail Vada stating that it is “not that great”. According to the national Transport Minister, Joe Maswanganyi, “there are challenges with BRT systems and we will review the system, look at it and come up with the solution that will be in the best interests of commuters and the government”.

Implementing BRT in Johannesburg faces challenges that are rooted in the space-economy inhabited by the majority of the urban poor, which is the legacy of apartheid geography. To get from home to work (and vice versa), commuters have to cover several legs of travel and are required to pay commuting fares more than once. The BRT is unlikely to cover all legs, especially the leg from home in the township to the first central bus-

² www.laphumilanga.co.za

³ Herald Live. 2017. ‘New delay in IPTS roll-out’, 19 May 2017. <http://www.heraldlive.co.za/news/top-news/2017/05/19/new-delay-ipts-roll/>

stop, which is often covered by minibus taxis. In a sense, minibus taxis are fluid transport modes that can navigate the apartheid spatial layout. Minibus taxis shorten the distance from gate to pick-up point, as community activist, Farouk Abrahams, notes:

Transport has always been a problem because people don't have cars and if you reside in a place like Schauderville ...taxi makes it easier to get around. If I work a 2pm–10pm shift, the taxi comes and picks me up and drops me near my home. These are the taxi drivers that want to make the money and they informally organize with workers to pick them up after the end of the shift. The BRT goes through the main road and doesn't drive around in the area. Why would I walk all the way down for a bus when I can just wait for a taxi in my street. Like on the corner here the taxis come up here in our area, even in the morning before 6am, they go around hoot and pick people up. They drop off the kids right in-front of the school gate and then turn around and go and pick other people. Then they 'sweep', they call it 'sweeping', they pick up all the individuals waiting to go to work in town or Cleary Park.

It is clear that, while minibus taxis pose numerous safety risks and problems, their fluid mobility creates a sense of safety given South African crime rates. Minibuses are a successful fluid-transit model that can grapple with the spatial layout and safety concerns of South African townships. This is especially important when a large segment of poor urban residents live in informal settlements that develop and expand in a fluid and unplanned manner. When land is settled, communities develop largely through organic expansion, and in that sense city infrastructure models must follow where people settle. The taxi industry has historically been the transport mode that services newly settled areas, as land occupation, followed by the development of space by large segments of South Africa's citizenry, moves faster than planners can erect transportation infrastructure. This land hunger in cities, combined with the rapid development of unplanned settlements, means that the minibus taxi industry's mode of operation will continue to be crucial in the lives of the majority poor.

Conclusion

South African urban areas present interlocking forms of inequality. Given the history of land inequality and racialised property relations, political expectations around land access will continue to form part of the ongoing contestation and debate around how planning for South African cities develops. In this context, the TOD approach to urban development planning must aim to be pro-poor, by grappling with the urban land inequality as a complex developmental dynamic. Achieving socio-economic integration requires planners to keep in mind land value and commercial value trends, so that planning does not accidentally reinforce islands of affluence and exclude poorer communities socially and economically. The challenge is to assess the question of improved mobility and integration by looking at the existing transport practices in city communities and asking how and why certain modes, such as minibus taxis, persist in a given urban space. On-going urban sprawl and informal development of neighbourhoods complicates matters because market-driven property relations lie at the heart of much city economic development. Also important is to deal explicitly with the opportunities and limits for TOD approaches to balance out land market dynamics that lead to exclusion. Fundamentally, the imperative is to ensure that the city economies are reformed as a whole in ways that shift the social imaginaries around how citizens interact across class and social lines.

References

- Adewumi E and Allopi D. 2014 Critical assessment of Port Elizabeth bus rapid transit system. *Journal of Architecture and Civil Engineering*, 2(1):1–9.
- Bickford G. 2016. Transit oriented development in the South African context: an analytical review of Johannesburg's recent urban policy and strategy. A dissertation submitted to the University of Cape Town in partial fulfilment of the requirements for a MPhil degree (specialising in Transport Studies) in the Department of Civil Engineering.
- Joseph SL, Magni P and Maree G. 2015. Introduction. The Urban Land Paper Series Volume 1. Available at: <http://sacitiesnetwork.co.za/wp-content/uploads/2015/10/SACN-Urban-Land-Series-Vol-1.pdf>
- Mammon N. 2011. The urban land question: management and access for the urban poor in post-apartheid South Africa. Doctoral dissertation, University of Cape Town.
- Mkhize N. 2015. The politics of urban land and ownership: Locating spatial transformation in the urban land question. The Urban Land Paper Series Volume 1. Available at: <http://sacitiesnetwork.co.za/wp-content/uploads/2015/10/SACN-Urban-Land-Series-Vol-1.pdf>
- NMB (Nelson Mandela Bay Metropolitan Municipality). 2016. Integrated Development Plan 2016.
- Van Niekerk W, Waldeck L, Sebake N, Mans G and Ndaba D. 2014. City Futures Project – Korsten/Schauderville Neighbourhood Profile. CSIR (Council for Scientific and Industrial Research). Available Online at <http://cityfutures.co.za/sites/default/files/SA%20CF%20SIM%20-%20Korsten-Schauderville%20profile.pdf>
- Wasserman PC. 2014. The free [way] city: An exploration of inner city renewal through the removal of Settlers Way Freeway in Port Elizabeth, South Africa. Doctoral dissertation. Cape Town: University of Cape Town.
- Wilkinson, P. 2006. Transit Oriented Development: a strategic instrument for spatial restructuring and public transport system enhancement in South African cities? Paper presented at the 25th Annual South African Transport Conference (SATC), Pretoria, South Africa, 10–13 July 2006.

Land Ownership in the Context of Inclusive Urban Development

Simon Halvey, Joanna Ryan, Joan Stott and Matthew Townshend

The discourse around land in South Africa is largely framed as a rural issue, and discussions about urban land rarely address questions of ownership or use (Dyanty, 2015). This paper seeks to broaden the empirical base of urban land profiles in South African cities, particularly in relation to ownership.

Land ownership can influence urban development and, consequently, spatial transformation. Land ownership can shape how development occurs, through the decisions owners make over land in terms of land use and when to sell. In addition, the tenure type can determine how the costs and benefits of development are distributed, as development outcomes differ for property owners and for tenants.

Therefore, if South Africa is to achieve its development goals of inclusivity and spatial equity, a quantitative basis is needed for discussing how this relationship between land ownership and development evolves in practice.

After a discussion about what it means to own land, including a brief outline of the functioning of the land market in South Africa, the paper considers the theoretical links between land ownership and various characteristics and outcomes of development. Three Corridors of Freedom case studies, which are examples of transit-orientated development (TOD) projects, are used to explore practically how land ownership could potentially shape the progress of development with respect to zoning and density. A closer examination of the demographic profiles and predominant tenure types of the wards along the Louis Botha Corridor illustrates how ownership and the different tenure types can affect the outcomes of the corridor development.

What It Means to Own Land

Land ownership is a seemingly obvious term, in that you either own something or you do not. Yet attempting to pin down the notion of owning land, particularly in a legal sense, is not so simple (Gilman, 1997). An individual or entity can only own rights to land, which generally include the right to use (or not use); exclude others from using; irreversibly change; sell, give away or bequeath; rent or lease; retain all rights not specifically granted to others; and retain these rights without time limit or review. Even so, these rights are limited to an extent. They are attached to certain responsibilities, such as paying taxes and abiding by laws, including zoning laws, building codes and environmental protection laws (ibid).

Distinguishing between owning *land* and owning *the rights to land* shifts the debate about land ownership away from the rigid state-versus-individual, us-versus-them, haves-versus-have-nots, to the more flexible question of who (community groups, families, state, individual, etc.) should have which rights over land (ibid). This is an important shift, as it moves away from the power struggle over land towards issues of spatial justice, social inclusion and human empowerment. When determining the division of these rights over land, a key process is identifying legitimate interests, which is not a simple task in the South African context. Legitimate interests can range from those of the current private owner of the land, to those who have an historical claim to that piece of land, to government assuming rights over the land for redistributive or restitution purposes.

The two most common types of land ownership are private and state, each with their own complexities. Private ownership may enhance personal freedom, for those who are owners, but can also lead to vast concentrations of wealth and the effective denial of freedom and power to those unable to own land. Public ownership may mute differences in wealth but can also replace some of the abuses of individual ownership with the abuses of bureaucratic control (Gilman, 1997). Both systems, however, treat land as an inert resource to be exploited as fully as possible.

Public land ownership has long been characterised by notions of “the common good” or “the public interest”, and there are three primary arguments in favour of public ownership of land earmarked for development (Kivell, 2003).

- (i) **Planning efficiency:** land required for development that is state-owned promotes efficient and desirable land use patterns and growth, while keeping costs lower.

- (ii) **Fiscal and social equity:** land owned by the state ensures that targeted communities, rather than single landowners, gain from the overall financial benefit of development.
- (iii) **Provision of services:** providing services, such as public housing, schools, hospitals and roads, is easier on land owned by the state.

The three counter arguments to state ownership of land are the following.

- (i) **Bureaucratic inefficiency:** local governments may not be able to follow clear and consistent decision-making, and are susceptible to “unprogressive, insensitive, and inefficient ways” (Clawson, 1971).
- (ii) **Private rights:** public monopoly over land and the granting of development and planning permission, coupled with public sector use of the land, is a dangerous combination of power that threatens private property.
- (iii) **Land values:** there is little evidence that public ownership of land stabilises or lowers land prices in a mixed economic system (Carr and Smith, 1975).

It is widely acknowledged that some level of state intervention is required in densely populated urban areas, to avoid conflicts over land and to provide basic infrastructure (Kivell, 2003). The potential for conflicting claims to land is amplified when redevelopment requires either the assembly of individually held smaller plots of land, or the subdivision of large tracts of formerly industrial or commercial land in urban areas (Turnbull, 2005). Land and its improvements represent the most durable economic asset in an economy and so, not surprisingly, conflicting ownership claims over land often arise in market economies (ibid). This situation is compounded by the racially based history of land dispossession in South Africa, and the multiplicity of values that land represents.

The South African Urban Land Market

In South Africa, about 76% of land is privately owned, which includes land owned by municipalities, and about 58% of households have secure tenure in the form of ownership, leasehold or formal rental contracts (ULM, 2011). However, unequal access to markets in land, housing, and development and use rights reinforce the historical inequality in spatial land use (Napier, 2007). This is driven by the property market, which is based on competitive bidding: when players compete freely over limited urban land, land goes to the bidders who can afford higher prices. Furthermore, players are willing to pay higher prices for land that is well-located in respect to economic opportunities and transport nodes (ULM, 2011).

In addition to higher land prices driven by competitive bidding, marginalised communities (such as those in informal settlements) face significant barriers to accessing the formal property market. These include the absence of legal titles due to the lack of informal settlement registers; delays in transferring first-generation titles to deemed owners, mainly due to delays in valuing informal settlement properties and opening municipal accounts; lack of estate agents and conveyancers in informal settlements; and transaction costs, such as registration fees, that are not affordable for low-income households.

Furthermore, government subsidy programmes and bank lending practices have created a gap in the formal property market for people who are too wealthy for subsidised housing schemes but too poor for formal bank credit (ULM, 2011). This exclusion from the formal property market has resulted in an informal land market in South Africa, with poor citizens accessing land through various means. These include illegal occupation of vacant land, unofficial subdivision of existing plots, allocation of land by local committees and various rental practices (ibid).

The urban land market remains complex and difficult to penetrate, favouring larger corporate players and well-resourced individuals with the means to navigate the system (Napier, 2007). Because of market forces, it is increasingly recognised that the state needs to intervene in some way, so that well-located urban land can be secured for affordable housing to drive spatial transformation (Brown-Luthango, 2006). To make land markets work better for poor people, interventions need to focus on narrowing the divide between formal and informal markets. This can be achieved by bringing poor households into the formal market, thereby increasing their security of tenure and prospects of investing in the property (ULM, 2011). This is a key feature of the inclusive aims of TOD through spatial transformation.

Theoretical Outcomes of Land Ownership and Development

Ownership, zoning and rezoning

Zoning and rezoning have implications for both private landowners and municipalities. Zoning forms part of the rights that a landowner has over land, in terms of how the land can be used or developed, and so forms an integral part of the value of land. Ownership implies rights over land use, but these rights are restricted by laws and regulations. Zoning limits the freedom of landowners to determine how their land is used and transfers some of the rezoning decision-making power over privately owned land to municipalities.

Local governments rely on zoning to guide development and can amend zoning to achieve certain goals. Land-use regulation is generally said to affect the cost of housing by restricting the quantity of new units a developer can construct (Glaeser and Gyourko, 2003; Glaeser and Ward, 2009). Zoning determines the allowable density of a stand, and increasing densities above the current zoning schedule would require rezoning. This is an important tool for TOD, as rezoning can be used to increase the building volume allowed for development, which incentivises private sector investment through increased profits (World Bank, 2017). Rezoning enables land owners to benefit from the outcomes of TOD, as property values increase accordingly, particularly with higher density.

Ownership and densification

Densification is a key feature of TOD that increases both the efficiency of urban land use and the number of people who can benefit from the development. As such, it reflects the inclusivity of the investment along the corridors. Densification is encouraged to optimise the use of urban land and maximise opportunities to access transport, housing and amenities. It is pursued in the interests of creating “a city with spatially integrated equal opportunities, correcting spatial imbalances, creating sustainable settlements and advancing social equity” (City of Tshwane, 2014: 45). Densification creates the population thresholds necessary for economic growth and viable business development (especially small- and medium-sized enterprises) in specific areas, minimising distances between home and work, and containing the outward expansion of the urban footprint (ibid). According to the City of Johannesburg, the population in the three Corridors of Freedom will increase from an average of 7436 people per km² to 41 632 people per km². High-density residential developments within the corridors would need to support a range of typologies, densities, and incomes to realise the envisioned social inclusivity.

As higher densities are able to accommodate a wider variety of residents and land owners, this can lead to greater diversification in property owners if the availability of affordable housing is increased. However, such an outcome is not guaranteed. For example, diversity in ownership may not be achieved if developers sell entire developments to property agents rather than to individuals, or rent out the units themselves. However, as detailed below, spatial transformation does not rely on ownership alone. While the preferred goal might be diversification in land ownership, increasing access through other residential options also contributes to more inclusive and equitable urban spaces.

Ownership and spatial transformation

Spatial transformation is a broad term often used loosely in public policy, academic research and popular writing (Turok, 2014). Three aspects are significant for spatial transformation in South Africa (ibid) and are strongly reflected in the aims of TOD.

- (i) **Social integration and representative racial mixing**, which refers to greater inclusion of different race groups in urban spaces, to address the racial segregation inherited from apartheid.
- (ii) **The urban structure**, which is a functional system comprising fixed points of economic development and housing, and flows of resources through transport, energy, water and sanitation networks.
- (iii) **Local texture**, which refers to design features that affect the everyday lived experience of households and businesses, and includes density, diversity, safety, and access to amenities and public spaces.

Changing the patterns of land ownership to be more inclusive might be the greater goal of urban development, but increasing access for all citizens to better developed areas is also transformative. Other types of urban tenure, such as renting, are important and complement land ownership in spatial transformation. Transforming the ownership of space is supported by access to, and occupation of, space – transformation is “[an] effort to change the unequal access to and occupation/ownership of socio-politically differentiated space in South Africa” (Williams, 2000: 169). The observed growth of rental housing reflects the demand for residential options other

than home ownership. While not sufficient, more diversified rental tenure is consistent with, and supportive of, urban integration (Turok, 2014).

Ownership and the distribution of TOD costs and benefit

The ownership patterns of the corridors have important implications for a key development question: who benefits from, and who bears the costs of, significant public investment in urban areas. These costs and benefits can be categorised into two groups.

- (i) **Measurable outcomes**, which are things such as property prices, commuting time and costs, and diversity in residents.
- (ii) **Unmeasurable outcomes**, which refer to metrics that affect the quality of life of residents, such as sense of well-being and community, access to open spaces and public facilities, safety and air pollution.

Ownership may not be the only condition for spatial transformation, but it does have implications for inclusive development. The Constitution safeguards property rights, by limiting the powers of the state to restrict how landowners can use or develop their land. This protection of property rights has consequences for transformation, as it has tended to reinforce the status quo (Berrisford, 2011) and makes it difficult for municipalities and local governments to develop low-cost housing in well-located areas of the city. Residents in these well-located areas object that low-cost housing “limits their use and enjoyment of their land through reduced amenity, increased crime and polluted rivers etc.” (Turok, 2014: 82). They also raise concerns around densification, in that high-rise, multi-storey buildings foster unsafe, slum-like conditions. As property owners can demand compensation for the loss of their development rights, municipalities are prevented from using restrictions on private development to promote inclusive developments in well-located areas (Berrisford, 2011).

Gentrification is another important consideration and refers to the redevelopment of deteriorated urban neighbourhoods in favour of the incoming middle-class. The most at threat are low-income suburbs containing affordable housing. Significant investment can result in increased property values, leading to lower-income residents being forced out of an area. However, increased property values and, by implication increased rental prices, are considered an integral feature of TOD (Suzuki et al., 2015; ULM, 2012; Xu, 2015). This may benefit landowners but not lower-income residents who rent in the area. This exclusionary gentrification is a practical and relevant issue in South Africa, with increasing evictions over high rentals being called “a new form of apartheid” by housing activists Ndifuna Ukwazi.⁴

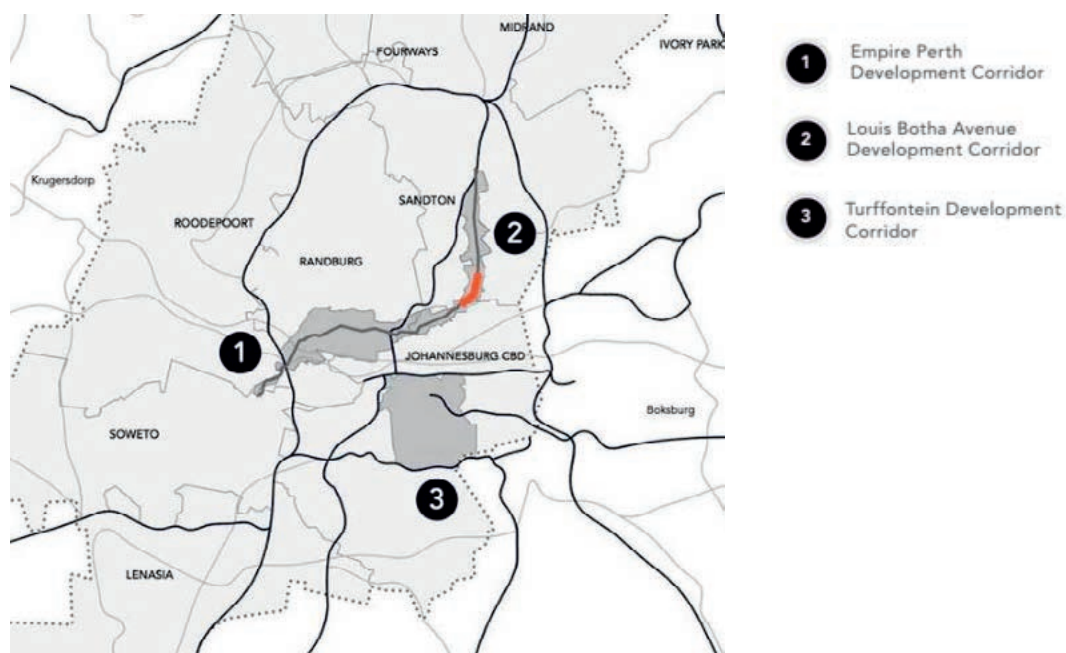
Therefore, ownership not only shapes how development occurs but also determines the distribution of TOD costs and benefits.

Case Study: Corridors of Freedom

The Corridors of Freedom are the implementation of new spatial and development plans based on TOD in the City of Johannesburg. Figure 3.1 shows the location of the three corridors: Louis Botha, Empire Perth and Turffontein, which are close to the main transport arteries and infrastructure, making them ideal for TOD. The aim of the Corridors of Freedom is to transform entrenched settlement patterns, whereby the majority of residents live on the city’s outskirts, away from economic opportunities and access to jobs and growth (JDA, 2017). The Corridors of Freedom are to be characterised by high-density accommodation, supported by office buildings, retail developments, and opportunities for education, leisure, and recreation. The plans also include high-rise residential developments located around bus terminals, gradually decreasing in height and density as they move further away from transit nodes (DDP, 2017). Social infrastructure, schools, clinics, police stations and government offices will be strategically located to support the growing population. Achieving this may require rezoning and planning permissions, as well as the appropriation of numerous properties on which to locate these new housing and social services developments.

⁴ News24. 2017. ‘Eviction over high rentals is new form of apartheid - housing activists’. <http://www.news24.com/SouthAfrica/News/eviction-over-high-rentals-is-new-form-of-apartheid-housing-activists-20170711>

Figure 3.1: Strategic location of the Corridors of Freedom in the City of Johannesburg

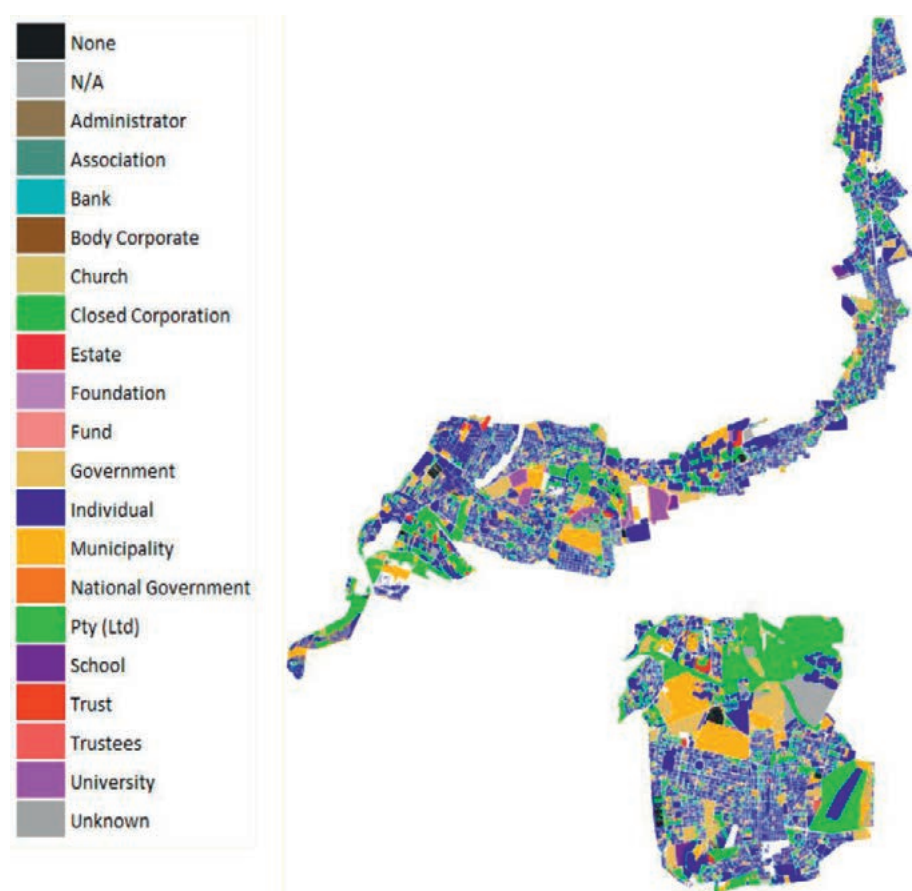


Source: City of Johannesburg

Ownership along the Corridors of Freedom

Figure 3.2 and Table 3.1 outline the various ownership types along the Louis Botha, Empire Perth, and Turffontein corridors.

Figure 3.2: Land ownership along the Corridors of Freedom



Source: City of Johannesburg CGIS

Table 3.1: Ownership statistics along the Corridors of Freedom

Ownership type	Number of properties	Share of all corridor properties	Total area (m2)	Share of total corridor area	Average area per property (m2)
Administrator	6	0.01%	25 952	0.02%	4 325
Association	54	0.13%	101 147	0.10%	1 873
Bank	10	0.02%	243 974	0.23%	24 397
Body corporate	99	0.24%	112 083	0.11%	1 132
Church	356	0.85%	499 250	0.48%	1 402
Closed corporation	1 487	3.57%	2 142 147	2.06%	1 440
Estate	58	0.14%	564 602	0.54%	9 734
Foundation	11	0.03%	51 901	0.05%	4 718
Fund	2	0.00%	2 333	0.00%	1 166
Government	472	1.13%	9 710 375	9.35%	20 572
Individual	26 251	62.97%	28 500 000	27.43%	1 083
Municipality	5 382	12.91%	24 100 000	23.20%	4 478
National government	6	0.01%	192 660	0.19%	32 109
Pty Ltd	5 096	12.22%	29 900 000	28.78%	5 868
School	15	0.04%	283 545	0.27%	18 903
Trust	505	1.21%	807 922	0.78%	1 599
Trustees	2	0.00%	208 364	0.20%	104 181
University	41	0.10%	1 278 370	1.23%	31 179
Unknown	1 835	4.40%	5 173 165	4.98%	39 229
TOTAL	41 688	100.00%	103 897 791	100.00%	16 284

Source: City of Johannesburg CGIS

Along the corridors, individuals own the majority of stands, but the state and businesses own large parcels of land. Individuals own nearly 63% of the stands, while the state (the municipality, government and national government) own 14.05%, followed by Pty Ltd businesses and closed corporations, with 12.22% and 3.57% respectively. However, the state is the largest owner in terms of area, owning 32.73% of the land along the corridors, followed by Pty Ltd businesses at 28.78% and individuals, at 27.43%.

Such fragmented land ownership and the difficulties of integrating private and public land parcels have been identified as major obstacles to achieving successful TOD (Pojani and Stead, 2014; Searle et al., 2014). In areas where many different individuals own many smaller stands, it is difficult to coordinate the interests of so many disparate entities. Moreover, although larger stands with fewer owners traditionally present fewer problems, the often-conflicting interests of state and businesses, which together own the largest land parcels in the corridors, present an additional problem. As such, coordinating the acquisition of large land parcels required for densification and inclusive development may require assistance and/or intervention from the state. In this light, the considerable land area owned by the state in the corridors certainly presents some opportunities for development, which is discussed further in the zoning section below.

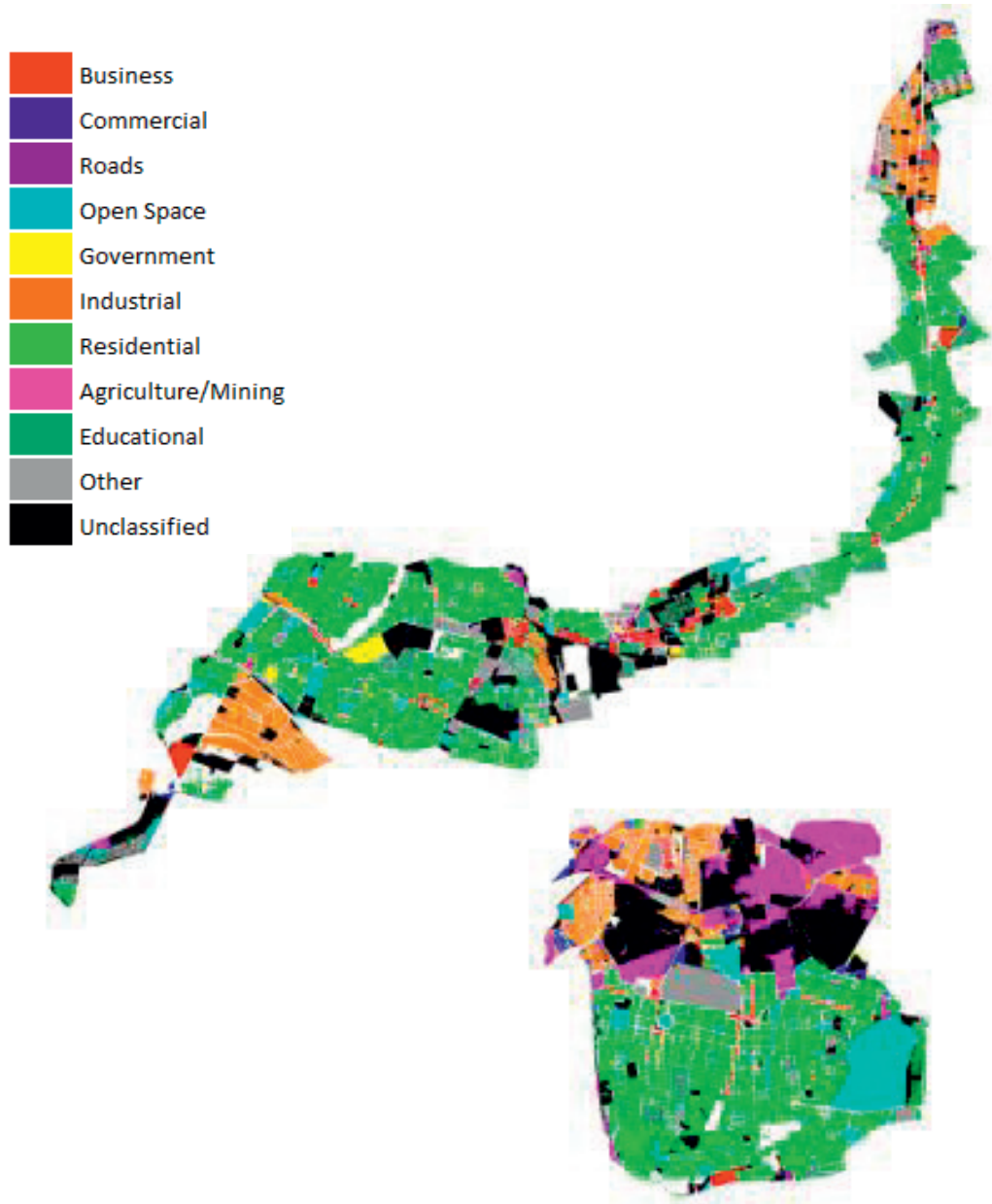
Ownership and zoning along the Corridors of Freedom

The primary purpose of zoning is to allow local and national authorities to regulate and control property markets to ensure complementary uses, and to stimulate or slow down development in target areas (World Bank, 2017). Figure 3.3 and Table 3.2 present the zoning profile of the corridors.

Almost three-quarters (73.78%) of the stands along the corridors are residentially zoned, with the other zoning types making up less than 5% each. Of interest to TOD is the relatively high proportion of state-owned land that is residentially zoned and, therefore, could be available for high-density, low-cost housing developments. Having access to sufficient land for such inclusive development can accelerate the process considerably, and so the residentially zoned land owned by the state is an important avenue to explore further.

Of concern for implementing TOD are the current zoning patterns in the corridor, which do not match TOD's mixed zoning profile. Zones are clustered rather than interspersed, with little mix between residential and business/commercial zoning, and so achieving the desired level of mixed land use along the corridors would require a lot of rezoning.

Figure 3.3: Zones along the Corridors of Freedom



Source: City of Johannesburg CGIS

Table 3.2: Ownership and zoning proportions along the Corridors of Freedom

Ownership type	Number of stands	% Business	% Residential	% Industrial	% Government	% Other
Administrator	6	0	66.67	0	0	33.3
Association	54	0	75.93	7.41	0	16.67
Bank	10	0	80	0	0	20
Body corporate	99	9.09	68.69	8.08	5.05	9.09
Church	356	4.49	77.81	3.37	1.97	12.36
Closed corporation	1 487	3.63	76.8	2.69	3.36	13.52
Estate	58	0	67.24	0	0	32.76
Foundation	11	0	81.82	0	0	18.18
Fund	2	0	100	0	0	0
Government	472	16.95	29.66	2.33	2.33	48.73
Individual	26 251	3.86	77.06	1.87	3.09	14.12
Municipality	5 382	4.92	70.29	2.56	3.46	18.77
National government	6	0	66.67	0	0	33.33
Pty Ltd	5 096	6.93	64.36	4.24	6.18	18.29
School	15	0	46.67	0	6.67	46.67
Trust	505	4.36	73.47	3.17	3.56	15.45
Trustees	2	0	50	0	0	50
University	41	2.44	2.44	17.07	2.44	75.61
Unknown/ undisclosed	1 835	0	28.57	14.29	0	57.14
TOTAL	41 688	4.55	73.78	2.37	3.53	15.78

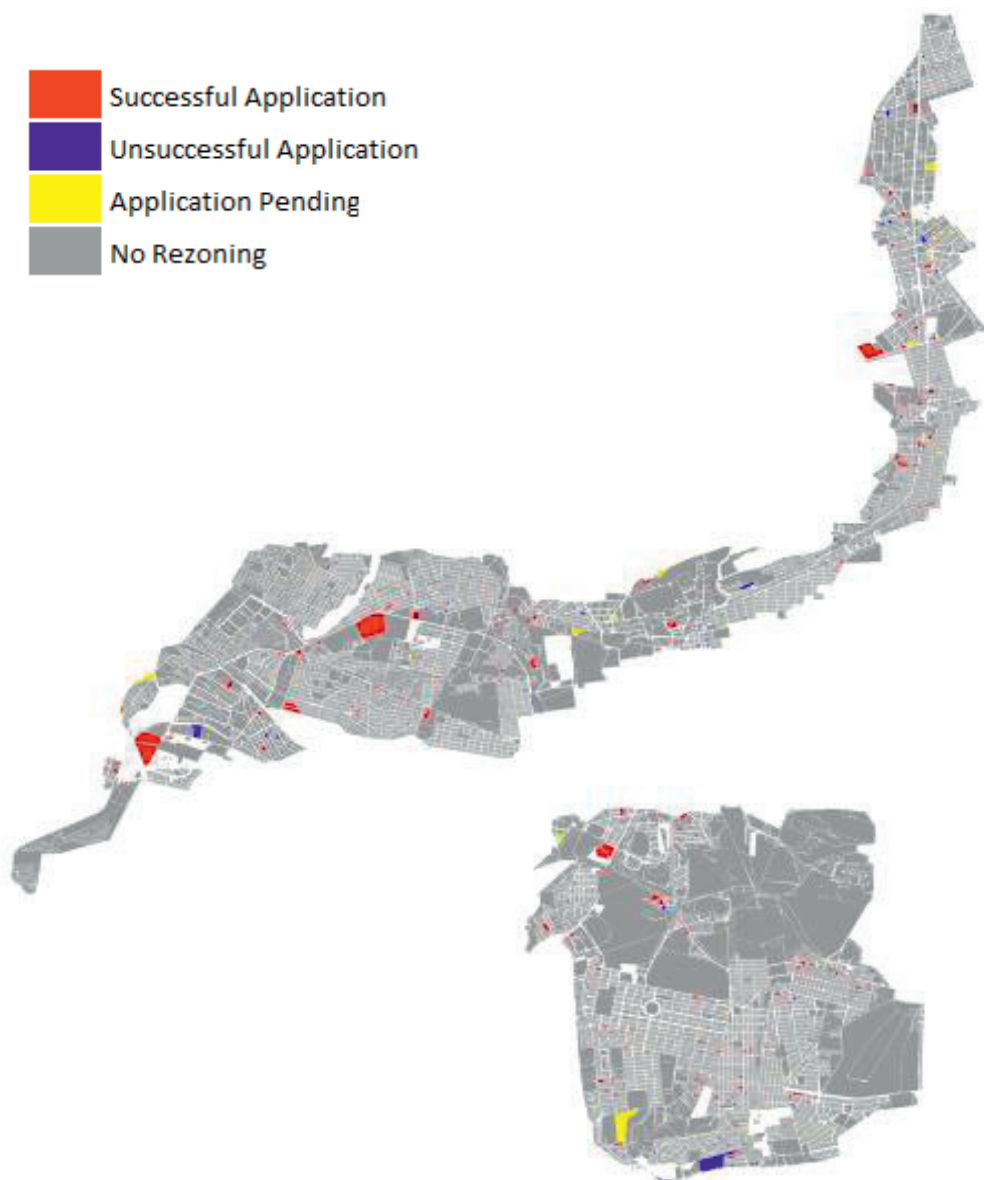
Source: City of Johannesburg CGIS

Ownership and rezoning along the Corridors of Freedom

Figure 3.4 shows the stands where rezoning applications have been made since January 2008, and which were successful, unsuccessful or are still pending. These statistics are further detailed in Table 3.

Examining the rezoning applications submitted to the City of Johannesburg gives an indication of the zoning changes sought along the corridors. Despite the considerable rezoning that is required, rezoning applications have been filed for only 1.67% of the stands in the corridor. Although the possibility that land is sometimes zoned ahead of time for planned development should not be ruled out, the minimal rezoning activity indicates little progress in mixing zoning types, specifically increasing business and commercially zoned stands in the largely residential corridors. This may imply that not much densification is also taking place. However, it is possible that some properties do not currently take advantage of the permitted maximum densification, and so development may be occurring that will result in increased density but does not require rezoning.

Figure 3.4: Rezoning applications along the Corridors of Freedom



Source: City of Johannesburg CGIS

Table 3.3: Rezoning applications along the Corridors of Freedom

Ownership type	Number of stands with submitted applications	% Stands submitted with applications	% Successful applications	% Pending applications	% Unsuccessful applications
Administrator	0	0.00	n/a	n/a	n/a
Association	0	0.00	n/a	n/a	n/a
Bank	0	0.00	n/a	n/a	n/a
Body corporate	0	0.00	n/a	n/a	n/a
Church	13	3.65	0.00	100.00	0.00
Closed corporation	12	0.08	16.67	66.67	16.67
Estate	0	0.00	n/a	n/a	n/a
Foundation	1	9.09	0.00	100.00	0.00
Fund	0	0.00	n/a	n/a	n/a
Government	2	0.42	100.00	0.00	0.00
Individual	256	0.98	36.33	42.19	21.48
Municipality	155	2.88	97.42	1.29	1.29
National government	0	0.00	n/a	n/a	n/a
Pty Ltd	218	4.28	56.42	3.67	39.91
School	2	13.33	50.00	50.00	0.00
Trust	3	0.59	0.00	33.33	66.67
Trustees	0	0.00	n/a	n/a	n/a
University	4	9.76	100.00	0.00	0.00
Unknown	1	14.29	0.00	0.00	100.00
TOTAL	667	1.67	56.37	21.29	22.34

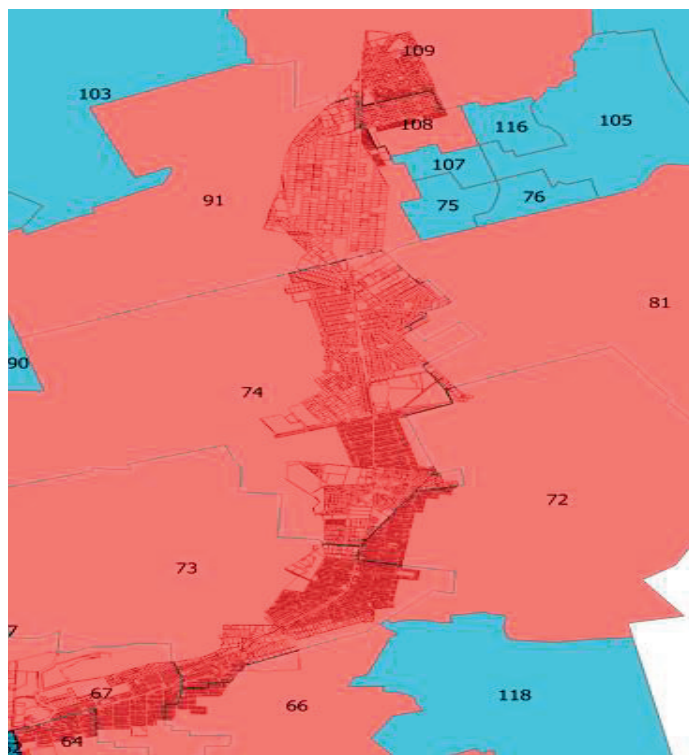
Source: City of Johannesburg CGIS

Over half (56%) of all applications were successful, with the degree of success appearing to have some correlation with ownership type. Rezoning applications made by the municipality and government were successful in 97% and 100% respectively of all cases, compared to 36% and 56% for individuals and Pty Ltd businesses. Of the rezoning applications submitted by individuals and businesses, 21% and 40% respectively were unsuccessful. Understanding why these rezoning applications were unsuccessful is pertinent, as unsuccessful applications can limit the development that can take place and negatively affect the land owner. As stated already, public ownership of land, coupled with the granting of rezoning and development permission, is a potentially dangerous combination of power and a threat to private property. The state may not have a monopoly over land in the corridors but could possess significant power from owning strategic pieces of land and controlling rezoning permissions, which could potentially limit the agency of landowners in determining how their land is used.

Demographic profile of Louis Botha corridor

A detailed demographic profile of the residents of the corridor was developed using Census 2011 data. Included in the residential profile are the wards that the Louis Botha corridor passes through, i.e. 64, 67, 73, 74, 91, 108, and 109 as indicated in Figure 3.5. Although the corridor does not encompass the entirety of these wards, the most accurate disaggregation of demographic data available for this study is at the ward level. Wards 66, 72, and 81 are not included as only a limited area overlaps with the corridor.

Figure 3.5: Wards along the Louis Botha Corridor



Source: City of Johannesburg CGIS and the Municipal Demarcation Board

Table 3.4 summarises the prevalence of ownership type in each of the wards. Mirroring the ownership profile of the three corridors (see Table 3.1), individuals own most stands in the wards, followed by the municipality and Pty Ltd businesses.

Table 3.4: Percentage of ownership type per ward

Ownership type	Ward						
	64	67	73	74	91	108	109
Administrator	0.00	0.00	0.00	0.09	0.00	0.00	0.00
Association	0.45	0.17	0.16	0.09	0.00	1.04	0.00
Bank	0.00	0.09	0.05	0.00	0.00	0.00	0.00
Body corporate	0.00	0.17	0.37	0.32	0.78	0.00	0.19
Church	2.92	1.48	0.94	1.04	0.58	4.69	0.19
Closed corporation	3.60	3.74	3.57	4.00	2.91	1.04	6.06
Estate	0.22	0.09	0.10	0.32	0.58	0.00	0.00
Foundation	0.00	0.00	0.00	0.14	0.00	0.00	0.00
Fund	0.00	0.00	0.00	0.09	0.00	0.00	0.00
Government	0.00	0.61	0.84	1.50	1.55	0.52	0.57
Individual	66.07	64.90	61.35	61.79	55.53	65.63	67.80
Municipality	18.65	16.07	15.73	10.95	13.59	20.31	15.53
National government	0.00	0.00	0.00	0.05	0.00	0.00	0.00
Pty Ltd	6.74	11.29	14.79	17.40	23.30	5.73	8.14
School	0.00	0.00	0.05	0.05	0.19	0.00	0.00
Trust	1.35	0.96	1.99	2.09	0.97	1.04	1.52
Trustees	0.00	0.00	0.00	0.00	0.00	0.00	0.00
University	0.00	0.43	0.00	0.00	0.00	0.00	0.00
Unknown/undisclosed	0.00	0.00	0.05	0.09	0.00	0.00	0.00

Source: City of Johannesburg CGIS

Table 3.5 outlines the key demographic statistics for these wards.

Table 3.5: Census 2011 demographics along Louis Botha

Variable	Ward						
	64	67	73	74	91	108	109
Population group							
Black	96.27%	84.02%	45.12%	42.26%	61.90%	98.50%	62.50%
Coloured	1.16%	2.12%	2.27%	2.40%	1.80%	0.70%	2.00%
White	1.30%	6.12%	37.37%	48.34%	28.70%	0.10%	17.50%
Indian/Asian/Other	1.28%	7.75%	15.25%	7.00%	7.60%	0.70%	18.00%
Education							
No schooling	2.07%	2.94%	1.79%	0.91%	1.20%	5.10%	4.30%
Less than Matric	38.10%	28.00%	23.79%	23.58%	32.20%	52.40%	36.00%
Matric	48.88%	40.83%	35.92%	34.36%	35.10%	40.70%	35.30%
Tertiary	8.24%	16.53%	34.08%	37.07%	28.60%	1.40%	23.00%
Other	2.72%	11.70%	4.42%	4.08%	2.90%	0.40%	1.30%
Household income							
No income	20.78%	20.10%	11.61%	8.77%	15.50%	25.80%	18.40%
R0–R20,000	12.20%	8.96%	9.55%	7.64%	29.00%	19.60%	13.30%
R20,001–R75,000	38.40%	33.16%	24.69%	25.10%	32.00%	41.50%	31.70%
R75,001–R150,000	16.38%	14.99%	10.29%	10.71%	9.20%	9.70%	7.20%
R150,001–R300,000	8.73%	11.08%	12.81%	13.18%	7.10%	2.60%	6.90%
Over R300,000	3.52%	11.71%	31.05%	34.59%	7.20%	0.80%	22.60%
Employment status							
Discouraged work-seeker	1.07%	1.20%	0.68%	0.43%	1.00%	2.40%	3.80%
Not economically active	14.76%	28.31%	16.16%	14.63%	17.60%	17.50%	16.60%
Unemployed	15.39%	8.19%	4.66%	2.80%	8.70%	17.20%	9.00%
Employed	45.37%	40.72%	50.91%	52.78%	47.30%	37.40%	46.10%
Not applicable	23.41%	21.58%	27.59%	29.37%	25.30%	25.50%	24.50%
Tenure type							
Owned and fully paid off	5.06%	9.05%	22.69%	22.42%	39.60%	37.80%	27.40%
Owned but not paid off	3.66%	8.72%	23.03%	24.33%	11.30%	9.90%	19.60%
Rented	87.11%	75.88%	34.70%	32.38%	24.00%	15.30%	17.00%
Occupied rent-free	2.64%	5.42%	15.64%	16.60%	17.80%	31.70%	28.40%
Other	1.53%	0.92%	3.94%	4.28%	7.30%	5.30%	7.70%

Source: Census 2011. Figures may not sum to 100% due to rounding

The wards appear generally racially and socio-economically diverse, varying from wards with predominantly Black residents (Wards 64, 67 and 108) characterised by low-income households, higher levels of unemployment, and lower education levels, to wards with an over-representation of White residents (Wards 73 and 74) characterised by high-income households, low levels of unemployment and higher education levels. Ward 109 is an anomaly, straddling low-income, Black communities (Alexandra and Marlboro) and high-income White areas (Morningside and Gallo Manor). Based on the demographics of the likely beneficiaries across wards, TOD investment expenditure along the corridor appears ostensibly inclusive, until the tenure type is examined.

As outlined in the earlier discussion about the costs and benefits of TOD, tenure matters. Those who are renting in the area may be negatively affected by increased property prices and rent. Poorer neighbourhoods are most at risk of gentrification, with residents being unable to afford the rental increases that accompany development. The analysis finds a close correlation between the rates of rental occupancy and low-income, under-educated, predominantly Black residents. Wards 64 and 67, whose residents are predominantly Black, are the wards with the highest proportion of rental occupancy (at 87.11% and 75.88% respectively). While these lower-income rental residents will enjoy the immediate improvement in living conditions and better access generated by TOD, they are also most at risk of being financially excluded from, and indeed by, investment in the corridor.

In Ward 108, which is also home to residents who are predominantly Black, under-educated and living in low-income households, a third (31.7%) of the residents occupy land rent-free. Although the nature of this tenure is not clear, it is likely to take the form of informal dwellings as the ward falls entirely within Alexandra. The same applies to Ward 109, which includes part of Alexandra and Marlboro Gardens townships, where rent-free occupancy rates are also high. Their lack of land ownership means that these residents are excluded from many of the long-term TOD benefits, while their informal occupancy of the land restricts their agency over the land and the TOD decision-making process.

What is evident is that the benefits of TOD investment, and the associated gentrification of areas, tend to benefit higher income, educated, White residents, but pose the risk of excluding lower income, under-educated Black residents. Therefore, analysing the demographic and socio-economic characteristics of the different tenure types along TOD corridors indicates the potential for an uneven distribution of the costs and benefits of the development, and areas at risk of gentrification.

Conclusion

Discussions about urban land rarely address the issue of ownership or use. Yet land ownership influences urban development, shaping how development occurs and determining the distribution of development costs and benefits. The most common types of land ownership are private and state, which each have their own complexities. Private ownership can lead to concentrations of wealth and deny power to those without land, while public ownership may replace abuses of individual ownership with abuses of bureaucratic control. There are arguments for and against public ownership of land that is earmarked for development. Nevertheless, it is widely acknowledged that some state intervention is required in densely populated urban areas, to avoid conflicts over land and to provide basic infrastructure. Yet conflicting ownership claims over land often arise in market economies. This is compounded by South Africa's land dispossession history, where unequal access to land and housing reinforce the historical spatial inequality, driven by the property market that is based on competitive bidding and leads to higher prices for well-located land.

In addition to higher land prices, marginalised communities also have difficulties accessing the formal property market because of issues such as the absence of legal title deeds. Bringing poor households into the formal market and increasing their security of tenure can help narrow the divide between the formal and informal markets, and lead to more inclusive cities. TOD is seen as a means of achieving spatial transformed, inclusive cities.

However, the question is who benefits from, and who bears the costs of, significant public investment in cities, such as TOD. To answer this question, the study developed land ownership/zoning profiles for the Corridors of Freedom and compiled a demographic profile of Louis Botha corridor. The Corridors of Freedom are the implementation of the City of Johannesburg's TOD spatial development plan. The three corridors – Louis Botha, Empire Perth and Turffontein – are close to main transport arteries and infrastructures and therefore ideal for TOD. The research examined the ownership types and zoning/rezoning along the corridors, and the implications for the proposed TOD.

It found that individuals own the majority (62.97%) of stands, but that the state is the largest owner in terms of area, owning about a third of the land along the corridors. Such fragmented land ownership and the problems of integrating private and public land parcels are major obstacles to achieving TOD. Coordinating the interests of many disparate entities is difficult, and yet the considerable land area owned by the state presents opportunities for development. A relatively high proportion of this state-owned land is residentially zoned, and so could be available for high-density, low-cost housing developments.

Of concern for implementing TOD is the current zoning in the corridors. Almost three-quarters of the stands are residentially zoned, and the zones are clustered rather than interspersed, with little mix between residential and commercial zoning. What this means is that a lot of rezoning would be required to achieve the desired level of mixed land use. Yet the research found that rezoning applications had been filed for less than 2% of the stands. Of these applications, 56% were successful, with the degree of success appearing to be correlated with ownership type. Only 21% of rezoning applications by individuals were successful, compared to 100% for government.

The research also looked in depth at the Louis Botha corridor demographic profile because tenure matters when it comes to determining who benefits (or not) from TOD investments. Poorer neighbourhoods are most at risk, as residents are often unable to afford the rental increases that accompany development. And residents of low-income areas with a high proportion of renters or other non-ownership occupancies are most at risk of being financially excluded from, and indeed by, investment in the corridor. Therefore, planners should be aware that gentrification poses a risk of exclusion in areas containing high levels of rental accommodation and low-income residents.

Further research is needed into (i) state-owned residentially zoned land along the corridor, as having access to sufficient land can accelerate the process of inclusive development, and (ii) reasons for rezoning applications being unsuccessful, as unsuccessful applications can limit the development that can take place and negatively affect the land owner.

References

- Berrisford S. 2011. Unravelling apartheid spatial planning legislation in South Africa: a case study. *Urban Forum*, 22(3): 247–263.
- Brown-Luthango M. 2006. Capturing unearned value/ leakages to assist markets to work for the poor. Paper commissioned by Urban LandMark. http://www.urbanlandmark.org.za/downloads/05_Brown_Luthango.pdf. Accessed 23.06.2017
- Carr J and Smith L. 1975. Public land banking and the price of land. *Land Economics*, 51(4): 316–30.
- City of Johannesburg. 2017. https://joburg.org.za/2007/pdfs/sdf2007_8/section43_densification.pdf. Accessed 21.06.2017
- City of Tshwane. 2014. Tshwane rapid transit (TRT): spatial development policy: densification and intensification guidelines. <http://www.tshwane.gov.za/sites/Departments/City-Planning-and-Development/RELATED%20DOCUMENTS/Tshwane%20Rapid%20Transit%20Spatial%20Development%20Policy%20-%20Densification%20and%20Intensification%20Guidelines.pdf>. Accessed 21.06.2017
- Clawson M. 1971. Suburban Land Conversion in the United States, Baltimore: Johns Hopkins University Press.
- Crocombe RG. 1968. Improving land tenure: a survey of the problems of adapting customary land tenure systems to modern economic conditions in the region served by the South Pacific Commission. Nouméa: South Pacific Commission.
- DDP (Department of Development Planning). 2017. Corridors of Freedom for a people-centred city. https://joburg.org.za/index.php?option=com_content&task=view&id=544&Itemid=78&limit=1&limitstart=6. Accessed 07.05.2017
- Dyantyi M. 2015. Urban land ownership. Southern African Catholic Bishops Conference Parliamentary Liaison Office, *Briefing Paper* 397.
- Glaeser EL and Gyourko J. 2003. The impact of building restrictions on housing affordability. *Economic Policy Review*, 9(2).
- Glaeser EL and Ward BA. 2009. The causes and consequences of land use regulation: Evidence from Greater Boston. *Journal of Urban Economics*, 65(3): 265–278.
- Harrison A, Tranter RB and Gibbs RS. 1977. Landownership by Public and Semipublic Institutions in the United Kingdom, University of Reading: Centre for Agricultural Strategy.
- JDA (Johannesburg Development Agency). 2014. Spatial Transformation of Cities Conference Report. http://www.jda.org.za/docs/spatial_transformation_conf_report.pdf. Accessed 21.06.2017
- JDA. 2017. Corridors of freedom for a people-centred city. <http://www.jda.org.za/index.php/whatwedo/programmes/the-big-idea>. Accessed 27.04.2017
- Kivell P. 2003. Land and the City Patterns and Processes of Urban Change. Taylor & Francis e-Library. Accessed 01.04.2017
- Lefebvre H. 1976. Reflections on the politics of space. *Antipode*, 8(2): 30–37.
- Montgomery JR. 1987. The significance of public land ownership. *Land Use Policy*, 4(1): 42–50.

- Napier M. 2007. Making urban land markets work better in South African cities. Urban LandMark Fourth Urban Research Symposium, 2007. <http://researchspace.csir.co.za/dspace/handle/10204/1053>. Accessed 23.06.2017
- Pojani D and Stead D. 2014. Ideas, Interests, and institutions: explaining Dutch transit-oriented development challenges. *Environment and Planning A*, 46(10): 2401–2418.
- Searle G, Darchen D and Huston S. 2014. Positive and negative factors for transit oriented development: case studies from Brisbane, Melbourne and Sydney. *Urban Policy and Research*, 32(4): 437–457.
- Suzuki H, Murakami J, Hong Y-H and Tamayose B. 2015. Financing transit-oriented development with land values: adapting land value capture in developing countries. World Bank Group. <http://documents.worldbank.org/curated/en/468551468165570019/pdf/936860PUB00ISB0TransportDevLV0final.pdf>. Accessed 21.06.2017
- Swinburn G, Goga S and Murphy F. 2006. Local Economic Development: A Primer Developing and Implementing Local Economic Development Strategies and Action Plans. World Bank: <http://documents.worldbank.org/curated/en/211891468140975725/Local-economic-development-a-primer-developing-and-implementing-local-economic-development-strategies-and-action-plans>. Accessed 03.05.2017
- Turok I. 2014. Settlement planning and urban transformation. In South African Cities Network. 2014. Spatial Transformation of Cities Conference Report, pp. 73–98. http://www.sacities.net/wp-content/uploads/2014/10/spatial_transformation_conference_report_web.pdf. Accessed 21.06.2017
- ULM (Urban LandMark). 2011. Urban land markets in Southern African Cities. http://www.urbanlandmark.org.za/downloads/tm2011_04.pdf. Accessed 24.06.2017
- ULM. 2012. Improving access to the city through value capture. http://www.urbanlandmark.org.za/downloads/improving_access_city.pdf. Accessed 04.05.2017
- Williams JJ. 2000. South Africa urban transformation. *Cities*, 17(3): 167–183. http://oreconsulting.co.za/upload/docs/Publications-Williams_Urban_Transformation_in_SA.pdf. Accessed 22.06.2017
- World Bank. 2017. Urban regeneration. <http://urban-regeneration.worldbank.org/node/39>. Accessed 28.04.2017
- Xu S. 2015. The impact of transit oriented development on residential property value in King County, WA. <https://digital.lib.washington.edu/researchworks/handle/1773/34203>. Accessed 21.06.2017

Towards a Measure of Spatial Justice in South African Cities: Spatial Mismatch and SPLUMA⁵

Socio-Economic Rights Institute of South Africa (SERI)

Peripheral location is a poverty trap: “living on the periphery leads to poverty, while poverty ensures living on the periphery” (SERI, 2016a: 2). The idea that living far from jobs may harm employment prospects has been extensively studied in the United States, where it is called the “spatial mismatch hypothesis” (SMH). The SMH predicts that unemployment rates will be higher for people living in areas located far away from appropriate jobs because the lack of proximity makes it more difficult for people to find employment. In 2016, the Socio-Economic Rights Institute of South Africa (SERI) undertook research to investigate the applicability of this hypothesis to the South African context.

In South Africa, the legacy of apartheid city planning is evident: 22 years since democracy, a disproportionately white elite still resides in well-located city cores, close to economic activities, while an overwhelming majority of poor black South Africans are concentrated in urban peripheries in dense and poorly serviced townships or informal settlements, with insecure tenure and far from economic opportunities (Pieterse, 2009; Turok, 2012).

The concept of spatial mismatch can provide a rigorous statistical base for conceptualising an agenda for advancing spatial justice in South Africa’s cities, which is especially important given the centrality of spatial justice as one of the principles contained in the Spatial Planning and Land Use Management Act (SPLUMA) of 2013. The spatial mismatch question is whether South Africans who live on urban peripheries face higher unemployment because of their location. Spatial mismatch findings from eight metro municipalities confirm the hypothesis that living far from work reduces employment prospects. This paper is based on a case study of the City of Johannesburg, examining spatial mismatch and spatial (in)justice using the city’s Spatial Development Framework (SDF) and submissions made by SERI on the municipal planning by-law and the SDF. The paper concludes with recommendations on using spatial mismatch as an indicator of spatial (in)justice and on how SDFs can contribute to reversing the current spatial mismatch within South African cities.

Spatial Justice

SPLUMA was introduced to “undo” the spatial injustice legacy of apartheid and to strengthen effective and efficient planning and land use management. A key feature of SPLUMA is the inclusion of the principle of spatial justice, which aims to redress past development imbalances by improving access to well-located land and promoting integrated human settlements. Indeed, a commitment to spatial justice is the first development principle in SPLUMA⁶:

- (i) past spatial and other development imbalances must be redressed through improved access to and use of land;*
- (ii) spatial development frameworks and policies at all spheres of government must address the inclusion of persons and areas that were previously excluded, with an emphasis on informal settlements, former homeland areas and areas characterised by widespread poverty and deprivation;*
- (iii) spatial planning mechanisms, including land use schemes, must incorporate provisions that enable redress in access to land by disadvantaged communities and persons;*
- (iv) land use management systems must include all areas of a municipality and specifically include provisions that are flexible and appropriate for the management of disadvantaged areas, informal settlements and former homeland areas;*
- (v) land development procedures must include provisions that accommodate access to secure tenure and the incremental upgrading of informal areas;*
- (vi) a Municipal Planning Tribunal considering an application before it, may not be impeded or restricted in the exercise of its discretion solely on the ground that the value of the land or property is affected by the outcome of the application.*

⁵ This paper is based on SERI’s research on spatial mismatch written by Joshua Budlender and Lauren Royston. The paper is written by Lauren Royston, Nthabiseng Nkhatau and Alana Potter http://www.seri-sa.org/images/SERI_Edged_out_report_Final_high_res.pdf.

⁶ Chapter 2, Section 7(a).

The SPLUMA principles are consistent with existing policy frameworks such as the National Development Plan (NDP) and the Integrated Urban Development Framework (IUDF). SDFs, which are developed by all spheres of government, have the potential to realise spatial transformation given sufficient alignment within and between the three spheres.

SPLUMA creates a legal obligation that future spatial planning, land development and land use management must accord with the principle of spatial justice. The concept of spatial justice has the potential to be politically powerful in South Africa, where both a state obligation and activist commitment to the concept may be used to transform apartheid-era spatial forms. However, a clear spatial vision and practical definitions remain elusive, which simultaneously renders the state unaccountable to this principle and hinders attempts to use the concept to concretely set policy agendas.

The predominant academic understanding is that commitments to spatial justice should address links between spatial circumstances and unjust social phenomena, and vice versa (Marcuse 2009; Soja, 2009), while the South African government favours a more historically oriented definition about “righting the wrongs of the past”. By presenting new analysis about the prevailing social conditions in South African cities, spatial mismatch may be useful for formulating new and practical definitions of spatial justice. By quantifying the size of spatial mismatch, SERI’s research offers a benchmark against which progress towards one aspect of spatial justice can be measured and monitored.

The market cannot resolve the problem of spatial mismatch, and so strategic state intervention is required. However, one such intervention – the post-apartheid national housing subsidy programme – has entrenched poverty because the subsidised houses were built on the periphery where cheaper land was available. Studying South Africa’s main urban areas through the spatial mismatch lens results in a powerful, evidence-based case for recapturing the national housing subsidy programme as a proper intervention, which can, and indeed should, contribute to reversing the jobs/housing mismatch prevalent in South Africa’s cities. The current human settlements policy over-emphasises the asset-based potential of ownership housing to reduce poverty, and the housing subsidy programme would have a greater impact if it were to provide opportunities for poor people to live close to jobs.

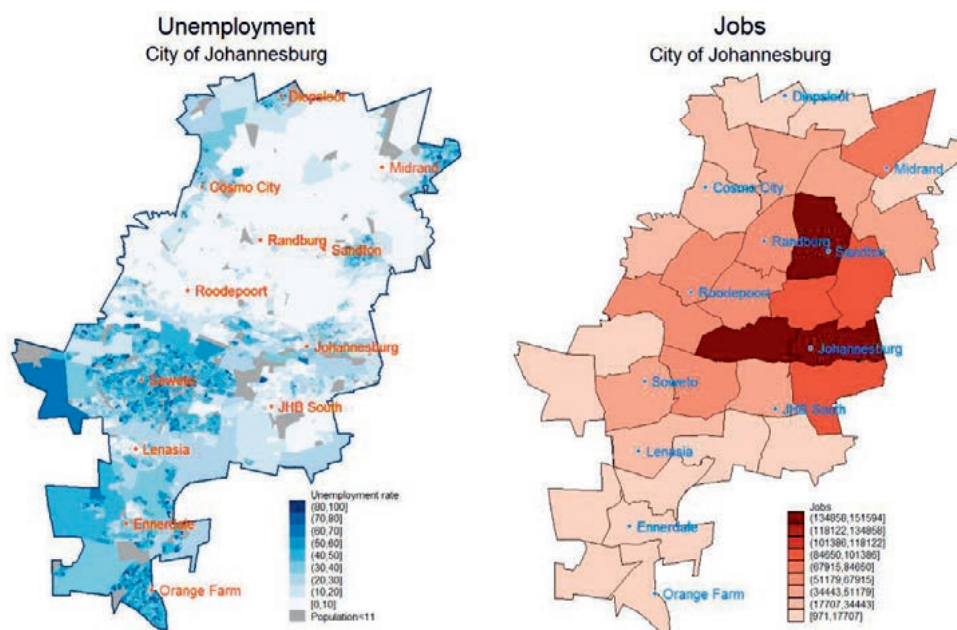
In South Africa, the apartheid city structure embodies spatial injustice: undoing the jobs/housing mismatch must be central in SPLUMA-required SDFs, municipal by-laws and land development decisions.

Case Study: The City of Johannesburg

The City of Johannesburg is the most populous, economically vibrant and urban of all South African municipalities. Despite cycles of growth, decay and regeneration, the city centre remains an economic, political and social hub. Figure 4.1 shows the city’s unemployment rates and job concentration at small-area and mesozone levels.⁷ A spatial mismatch is evident, with the employment opportunities concentrated in the centre, not on the periphery where the majority of poor black residents live.

⁷ Some small areas in Figure 4.1 are coloured grey, indicating that there is no data for those areas. Statistics South Africa (Stats SA) does not report statistics for these areas where fewer than 13 people were enumerated in the census. Such areas are typically industrial and commercial zones, or contain features such as dams, mines, uninhabited mountains or nature reserves.

Figure 4.1: Unemployment rates and job concentration in the City of Johannesburg



Source: Adapted from SERI (2016a)

As Figure 4.1 shows, except for Diepsloot on the extreme northern periphery and Alexandra in the centre, Johannesburg can be divided into two parts: the north and centre, which has low unemployment and high job concentration, and the south, which has extremely high unemployment and few jobs. The consistently high unemployment and small number of jobs is particularly evident in the south-west (Soweto, the areas of Orange Farm and Ennerdale). In contrast, the disproportionately white “northern suburbs” to the north of the Johannesburg CBD, and the economic nodes of Sandton and Midrand, exhibit low unemployment rates and relatively high number of jobs.

Although, compared to other South African municipalities, the City of Johannesburg exhibits a large number of jobs across most of its area, this does not address the relative distribution of jobs within the municipality.

Table 4.1 shows how a 1-unit or 10-unit change in job proximity is related to changes in unemployment rates, while Figure 4.2 shows the proximity to jobs, i.e. what a 10-unit change in job proximity means. Each colour on the map denotes a different 10-unit job proximity band. Moving across a colour band is, therefore, a good indicator of what a 10-unit change in job proximity means for each municipality or larger region. Table 4.1 shows that a 10-unit increase in job proximity in Johannesburg is on average associated with a 4.5 percentage point decrease in small area unemployment rates. In other words, a 10% increase in job proximity is associated with a 7.7% decrease in unemployment.

Table 4.1: Unemployment change explained by proximity to jobs in the City of Johannesburg

	(1) GLM unit changes Unemployment rate	(2) GLM % changes Unemployment rate	(3) OLS % changes Unemployment rate
Proximity to jobs (index)	-0.238* (0.0153)	-0.771* (0.0496)	-0.814* (0.0507)
Observations	5,791	5,791	5,720
R-squared			0.657

Standard errors in parentheses; * $p < 0.1$; control covariates not shown

Note: GLM = Generalised Linear Model

Figure 4.2: Proximity to jobs in the City of Johannesburg

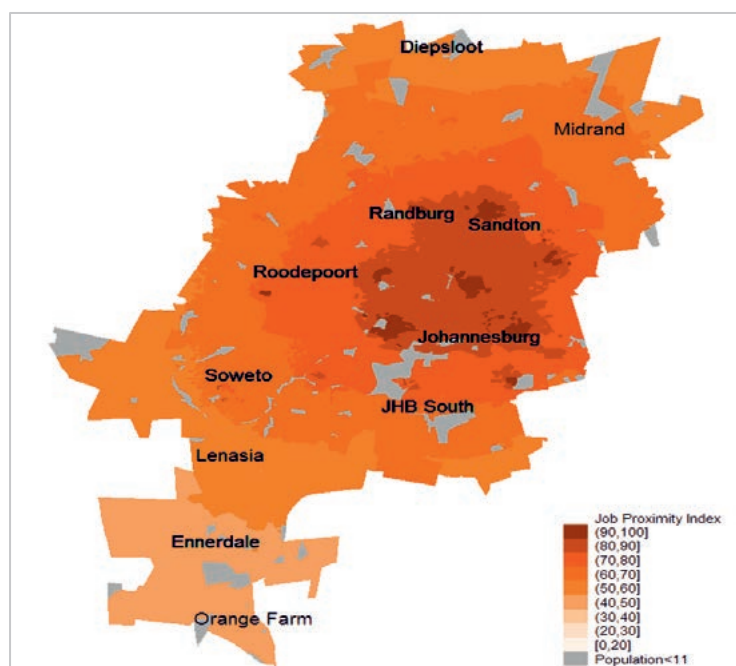


Figure 4.2 illustrates how the central areas in Johannesburg are closer to jobs than peripheral areas, with a clear gradation as areas become more peripheral. Diepsloot is an example of poor location with respect to employment given its distance from both the city centre and northern suburbs.

SPLUMA and Spatial Mismatch in Johannesburg

The City of Johannesburg exemplifies spatial injustice and inequality. Many of the areas with the highest housing densities are also the most deprived areas in the city, with little land-use diversity (mainly residential), and located far from areas of economic opportunities (CoJ, 2016b). This job/housing mismatch contributes significantly to inequality in the city, as costly and long-distance commuting prevents many residents from accessing economic opportunities.

SDFs, by-laws and land use management schemes are municipal planning instruments through which local government can operationalise SPLUMA principles and address spatial injustice in their areas of jurisdiction.

Spatial development framework

The SDF for Johannesburg 2040 is a city-wide spatial policy document identifying the main challenges and opportunities in the city, setting a spatial vision for the future city, and outlining a set of strategies that would lead to the realisation of that vision. It seeks to address five key issues in Johannesburg's spatial and social landscape (CoJ, 2016b: 11):

- Increasing pressure on the natural environment and green infrastructure.
- Urban sprawl and fragmentation.
- Spatial inequalities and the job-housing mismatch.
- Exclusion and disconnection emanating from: high potential underused areas (the mining belt and the Modderfontein area); securitisation and gated developments, and disconnected street networks (high cul-de-sac ratios and low intersection densities).
- Inefficient residential densities and land-use diversity.

The SDF addresses spatial mismatch in various ways.

- It acknowledges the spatial mismatch in Johannesburg, where population density increases with distance from the city centre, while jobs, economic activity and social amenities are most highly concentrated in the urban core. It recognises that this spatial structure entrenches poverty, deprivation and inequality. Residents

located close to jobs and amenities benefit from distinct economic and social advantages, while the peripheral poor must pay exorbitant transport costs to access these opportunities and spend considerable time commuting, if they can afford these costs (SERI, 2016b). The SDF also acknowledges that this spatial geography is a legacy of apartheid spatial planning, which reserved the best-located land for whites and was wary of an urbanised black population but, in some respects, has also been entrenched by post-Apartheid housing policy (CoJ, 2016b: 54):

Traditionally, housing for low income residents has been delivered in areas that are distant from main economic sectors on cheap and available land, rather on land that is optimal for urban development. Continuing to meet housing demand in this manner not only exacerbates existing socio-economic disparities in the city, but entrenches a growing pattern of spatial inequality.

- (ii) It recognises that overcoming spatial injustice and inequality in Johannesburg will require “creating housing opportunities near jobs, and creating job intensive economic opportunities in high density residential areas” (CoJ, 2016b: 74). Moreover, the SDF recognises that the “sharp concentration of jobs is an asset for Johannesburg”, which can lead to economic growth if supported by “an efficient transportation network in the short term and by increased housing opportunities in close proximity in the long run” (ibid).
- (iii) Its vision is to create a spatially just city based on a compact polycentric growth model, which emphasises a “dense urban core linked by efficient public transport networks to dense, mixed-use, complimentary sub-centres, situated within a protected and integrated natural environment.” (ibid). This vision is closely aligned to the NDP’s call to develop housing on marginal locations and sustainable transport. By developing this vision through particular corridors and nodes, the SDF’s aims to address the challenges that the City of Johannesburg faces in relation to overcoming spatial injustices of the legacies of apartheid.
- (iv) It emphasises social inclusion but does not resolve where or how the urban poor are to be accommodated in the city and how they are to sustain their lives. Yet this is one of the biggest tensions facing the city’s spatial future – and crucial for addressing spatial mismatch. Inclusionary housing policies, which remain a gap in all spheres of government, can only accommodate a minority of those who qualify for “affordable housing”, not the majority of poor residents.
- (v) It embraces the idea of a “compact city” and provides a brave vision that challenges the predominant spatial development pattern and responds to the historical experience of racially divided and sprawling cities, including the negative consequences in terms of access by black people to the city, to employment and livelihoods, and to quality services and facilities. The spatial incoherence between places of employment and residential areas for black people, the long commutes for workers, and the costs of travel for both workers and the state (in terms of subsidising transport) are all areas of concern. The city’s focus on urban compaction and redeveloping the inner city and townships incorporates improving mobility to enable better access to the city and areas of employment.

However, in practice the urban restructuring agenda is constrained, and the SDF does not include the actual steps to address spatial justice concerns. This raises questions about the extent to which it is possible to accommodate growth and the urban poor in well-located areas close to places of employment, versus promoting economic development and growing employment opportunities within and around former townships and other relatively marginalised areas within the city. The growing number of informal settlements around and near the inner city demonstrates that the SDF has not achieved practically its objective of creating housing opportunities near jobs and economic activities in the city; and that individuals are informally occupying land and spaces that are most appropriate for accessing the city and subsequent job opportunities.

While the SDF has some power to shape spatial transformation in the city, spatial trends and dynamics occur in a complex environment and there are many drivers and shapers of spatial change. Implementing spatial transformation faces various hindrances:

- (i) **Political drivers.** For instance, Mayor Mashaba’s focus on cleaning up “bad buildings” in order to attract private investment, thereby theoretically strengthening an ailing economy. In reality, the life-threatening conditions persist in unmanaged, unregulated and un-serviced inner-city buildings, and alternative accommodation is not available for people who should be relocated from unsafe buildings, such as Cape York⁸ where seven people died and another seven were injured in a fire recently. Despite almost half of inner city residents being unable to afford to pay rental in the private property market, the City of

⁸ <http://www.seri-sa.org/index.php/more-news/667-press-statement-cape-york-fire-06-july-2017>

Johannesburg has taken years to develop a policy to ensure that the poor can access affordable and suitable rental accommodation in the inner city – a policy that has yet to be implemented. Furthermore, it has not yet complied with its court-ordered constitutional obligation to accommodate the residents who presently remain without shelter since their eviction from Fattis mansions⁹.

- (ii) **Economic drivers.** Private property developers and employment nodes are still largely focused on middle/upper income residential and commercial development predominantly in the north, further spatially marginalising areas in the south, including townships (Gotz and Todes, 2014). The SDF proposes new forms of regulation in priority areas and for large developments. However, these approaches are likely to require considerable negotiation by skilled planners with developers. The City of Johannesburg will need to take a leading regulatory role in negotiating contractual arrangements with the private sector that are aligned to its spatial transformation agenda.
- (iii) **Lack of alignment among government spheres.** This lack of alignment is central to the disjuncture between spatial plans and outcomes. It further reflects the limited capacity, political will and institutional cooperation/integration, among others, within government.

The SDF recognises that the spatial transformation of cities is about not only public investment but also the dynamics of private developments, i.e. land use management. It also emphasises the importance of mobility in the city, as the ability of the urban population to navigate the city for work and social activities contributes towards overall growth and development. Densification and mixed housing along transit-oriented corridors will enable more affordable public transportation, reduce spatial mismatch and allow more access to social and livelihoods opportunities.

Finally, and core to the rationale of this paper, the SDF highlights that urban performance will be assessed using spatial development indicators, which include land use mix, population and job density, the amount and quality of public space, the percentage of affordable housing, connectivity levels and access to public transit. However, the SDF is limited with respect to measures to monitor, evaluate and take corrective action in relation to its implementation and the realisation of its policy intentions.

Municipal by-laws

SPLUMA's concerns are land development decision-making, land use management and spatial planning. By-laws, as laws made by the council to give effect to legislative provisions in a municipal jurisdiction, give a municipality the necessary authority to shape and regulate urban land relationships with respect to spatial planning, decision-making and land use management.

Municipal planning by-laws and regulations should give effect to the provisions of SPLUMA. In conjunction with the SDF, city by-laws can provide an enabling regulatory framework for spatial justice and land use development. However, there are also limitations and areas where the municipal planning by-laws conflict with the SPLUMA's objectives.

Areas of (mis)alignment between SPLUMA principles and the municipal bylaw

Section 24(3)(b) of SPLUMA provides that a land use scheme may include provisions relating to "specific requirements regarding any special zones identified to address the development priorities of the municipality". Similarly, Section 6(3)(b) of the by-law provides that "the land use scheme may include provisions relating to specific requirements regarding any special zones identified to address the development priorities of the City". (CoJ, 2016a).

The by-law allows the incremental introduction of land use management and regulation in informal settlements, slums and areas not previously subject to a land use scheme. This is in line with one of SPLUMA's principles, that "land use management systems must include all areas of a municipality and specifically include provisions that are flexible and appropriate for the management of disadvantaged areas, informal settlements and former homeland areas". Therefore, while the policy and legislative frameworks create an obligation on municipalities to upgrade informal settlements, under the by-law only an owner has the power to apply for a township development, which limits the municipality's ability to comply with these obligations.

⁹ <http://www.seri-sa.org/images/FattisPressStatement.pdf> (at 31 July 2017)

The policy and legislative frameworks creates an obligation on municipalities to upgrade informal settlements, but the by-law limits the applications for township development to owners. Therefore, it fails to properly give effect to the duties of municipalities in relation to informal settlements and limits the municipality's ability to comply with its obligations by only allowing owners to apply for township developments.

The by-law foregrounds land ownership and so people who occupy and use land have little scope to participate in decisions made about the land on which they live. This is particularly problematic for informal settlements where, by definition, many people live without formal and legal tenure. If the by-law is to meet SPLUMA spatial justice imperatives, it needs to enable informal residents, as land users, a voice in decisions taken about the land on which they live.

As already stated, the jobs/housing mismatch is central to the spatial transformation intentions of SPLUMA. Quantifying the size of spatial mismatch offers a benchmark against which progress towards a key component of spatial justice can be measured. Spatial mismatch is a powerful tool for accountability and collaboration, providing a measurable indicator for the implementation of a key principle in SPLUMA. It also provides the opportunity to identify where the gaps lie and advocate for properly regulated, socially responsible development that can help lift people out of poverty.

Towards (Measuring) Spatial Justice in South African Cities

Spatial mismatch provides a starting point for developing an indicator against which progress towards spatial justice can be measured. It is a measure to hold the state accountable in one area of structural poverty that traps people on the margins of the economy and keeps them on the outskirts of our cities.

SERI's research is just the beginning: the maps and quantitative work provide a base layer upon which more detailed and context-specific themes can be investigated. For example, it may be useful to investigate municipal SDFs in more depth, to examine the implications of the spatial mismatch findings and to look at the location of existing RDP settlements within the context of this analysis. Similarly, it would be useful to see how the planned Gauteng mega-projects fit into the research results. Overlaying other data, such as land prices, education levels, and poverty incidence, onto SERI's spatial mismatch maps may also provide interesting insights.

Regarding the specific application of the spatial justice principle, various municipal planning mechanisms were identified.

Applying the spatial justice principle:

The SPLUMA principles apply to "all organs of state and other authorities responsible for the implementation of legislation regulating the use and development of land". SPLUMA emphasises their use in contexts where spatial planning mechanisms have not traditionally been applied, which would likely include peripheral and informal areas. Municipalities may need support in balancing these principles during application, as (for example) spatial justice may conflict with spatial efficiency and (to a lesser extent) with spatial resilience. Municipalities are legally required to apply the principles to SDFs, land use management and land development decisions – three instruments which are discussed in the remaining sub-sections.

Spatial development frameworks

According to SPLUMA, SDFs must "include previously disadvantaged areas [...] and address their inclusion and integration into the spatial, economic, social and environmental objectives of the relevant sphere", as well as "address historical spatial imbalances" of which spatial mismatch is an explicit indicator.¹⁰ The municipal SDF must "assist in integrating, coordinating, aligning and expressing development policies and plans emanating from the various sectors of the spheres of government".¹¹ It must be prepared as part of the municipal integrated development plan, give effect to SPLUMA's development principles, and include estimates of housing demand and the location of planned housing projects. The SDF should also "identify the designation of areas in the municipality where incremental upgrading approaches to development and regulation will be applicable".¹²

¹⁰ Chapter 4, Part A, Section 12(1)(h) and (i)

¹¹ Chapter 4, Part A Section 12(5)

¹² Chapter 4, Part E, Section 21(k)

Designating areas for incremental upgrading is a possible spatial justice mechanism, which could be used to identify informally developed residential and economic areas that are better located and less peripheral – in short, more spatially just. Some examples include abandoned buildings that poor households have occupied, informal settlements and backyard shacks, and informal street trade in the inner city. The designation confers an official, legal status on these areas and incremental upgrading and land use regulation could ensue. Municipalities may need support on the designation of these areas.

Land use management

Land use management is an instrument to ensure that development decisions (taken by tribunals) and municipal policies and visions (contained in the SDF and other plans) are carried out and properly enforced. Land use management is an implementation mechanism for the SDF (ULM, 2011), but requires an important shift in thinking: municipalities will need to “take charge of the physical development of their municipal areas, including addressing the spatial needs of the poor, rather than merely responding or being dictated to by other players or interests in the market” (ULM, 2011: 32).

In terms of SPLUMA, municipalities must put in place a single land use scheme within five years of the Act coming into force. The land use scheme must include “provisions to promote the inclusion of affordable housing in residential land development”¹³ and “provisions relating to specific requirements regarding any special zones identified to address the municipal priorities of the municipality”.¹⁴ This option of special zones should be more fully explored as a social justice mechanism. For example, existing informally developed areas could be zoned in a manner that promotes spatial justice. Brazil provides examples of special zones of social inclusion (ZEISS) that are used to legalise informal land uses and regulate them in pro-poor ways. However, a model may need to be developed to support municipalities in exploring the potential of this mechanism.

Municipal planning tribunals/land development decisions:

The research found that private sector investment is a key factor in the persistence of the apartheid city structure/spatial mismatch. Developers prefer to build housing and commercial developments in established zones of economic and social activity, leaving poorer areas undeveloped and entrenching existing spatial divides (Pieterse, 2009; Todes, 2012). Developers, as part of a concentrated and powerful industry, have generally successfully resisted municipal efforts to induce the private sector to invest in poor areas, while property owners have organised into strong lobbies to protect their interests (Turok, 2012). Although some municipal spending is relatively well-targeted to poor areas, this kind of spending cannot compete with private sector investments (Pieterse, 2009).

Land development decisions are one of the most powerful instruments at a municipality's disposal to direct investment. SPLUMA provides for the setting up of a Municipal Planning Tribunal, which must consider certain factors when deciding on an application. For example, the tribunal must make decisions that are consistent with the development principles contained in the Act, the “national and provincial policies and the municipal spatial development framework”, and “take into account the constitutional transformation imperative and related duties of the State”. To promote accountability, tribunal decisions should be measured against the principles.

Spatial mismatch is a measurable indicator that can be used to assess progress towards achieving the vision of spatial justice, as contained in an SDF. Therefore, any SDF review should report on changes in the spatial mismatch measure. Municipalities will require support in this regard.

Inter-sectoral collaboration and alignment will be crucial in designating incremental upgrading areas and special zones that can be used as mechanisms to achieve spatial justice. In particular, the development planning, human settlements and economic development functions will need to work together. SDFs, municipal by-laws and land use management schemes are central municipal instruments to implementing SPLUMA and its principles.

The allocation and use of land is central to spatial justice because land allocation reflects and reinforces existing power relations. The allocation of private land occurs based on the principle of allocation to the highest and most profitable use, whereas state allocation has focused on allocating land on urban peripheries and is, typically (except for limited social housing initiatives) not well located. Locally or informally allocated land often reflects best use and access to land in well located areas.

¹³ Chapter 5, Section 24(2)(d)

¹⁴ Chapter 5, Section 24(3)

References

- CoJ (City of Johannesburg). 2016a. Municipal Planning By-law. Johannesburg: City of Johannesburg: City Development and Spatial Planning.
- CoJ. 2016b. Spatial Development Framework 2040. Johannesburg: City of Johannesburg - Department of Development Planning.
- Gotz G and Todes A. 2014. Johannesburg's urban space economy. In Harrison P, Gotz G, Todes A and Wray C. (eds.). *Changing Space, Changing City: Johannesburg After Apartheid*. Johannesburg: Wits University Press, pp. 117–136.
- Marcuse P. 2009. Spatial justice: derivative but causal of social injustice. *Justice Spatiale - Spatial Justice*, 1: 1.
- Pieterse E. 2009. Post-apartheid geographies in South Africa: Why are urban divides so persistent? Paper presented at Workshop Interdisciplinary Debates on Development and Cultures: Cities in Development – Spaces, Conflicts and Agency, Leuven University, 15 Dec 2009. Available: https://www.africancentreforcities.net/wp-content/uploads/2013/10/post-apartheid_geographies_pieterse_15dec09.pdf.
- SERI (Socio-Economic Rights Institute of South Africa). 2016a. Edged Out: Spatial Mismatch and Spatial Justice in South Africa's Main Urban Areas. Socio-Economic Rights Institute of South Africa, Johannesburg.
- SERI. 2016b. Submission on the City of Johannesburg's Spatial Development Framework. Socio-Economic Rights Institute of South Africa, Johannesburg.
- Soja, EW. 2009. The city and spatial justice. *Justice Spatiale – Spatial Justice*, 1: 1.
- Todes A. 2012. Urban growth and strategic spatial planning in Johannesburg, South Africa. *Cities*, 29: 158.
- Turok, I. 2012. Urbanisation and Development in South Africa: Economic Imperatives, Spatial Distortions and Strategic Responses. (Urbanization and emerging population issues working paper 8). International Institute for Environment and Development, London.

Proactive Upzoning of Land in TOD Developments to Promote Urban Regeneration in South African Cities

Stuart Paul Denoon-Stevens and Verna Nel

Zoning can be a powerful tool for shaping the development of cities but is often incompatible with and unsuitable for cities in the South. A common view is that “inappropriate planning and zoning standards” have resulted in the “high levels of illegality (of buildings and land use) in many cities” and are “directly responsible for spatial and social marginalisation” (Watson, 2009: 178). Consequently, planning legislation reform in South Africa has sought to reverse this trend. The Spatial Planning and Land Use Management Act (SPLUMA) of 2013 specifically encourages zoning schemes that enable spatial inclusion and spatial plans that result in more just, equitable and efficient cities. Yet many planners are questioning the ability of these spatial planning tools to transform urban space in South Africa (Dewar and Kiepiel, 2012; du Plessis, 2013, 2017; du Plessis and Boonzaaier, 2015; Musvoto et al., 2016).

However, one planning tool has the potential to assist municipalities in spatially transforming their cities. That tool is proactive rezoning or upzoning, which has had limited implementation in South Africa. The debate around land use management reform in South Africa has focused more on zoning regulations than on the zoning map itself, and how this map embeds an exclusionary and inefficient pattern of land use rights. The power of proactive rezoning is that it addresses both the zoning map and the zoning regulations.

The second layer to this paper is transit-orientated development (TOD), which is argued to be one of the ways to achieve spatial justice in South African cities. This requires a deviation from the origins of the concept, which primarily focused combating private vehicle use. In South Africa, part of the inclusive logic is premised on the recognition that the poor are the main users of public transport in South Africa, while the wealthy typically rely on private motor vehicles. The legacy in South African cities is an urban form that is car-centric and biased to the interests of the wealthy. Therefore, part of the intent behind TOD is to create an inviting and safe urban form that is accessible for existing public transport users and pedestrians (who are primarily the poor) and that encourages private vehicle users to switch to public transport.

This paper examines how proactive rezoning in TOD projects and strategies can be used to create an urban form that is spatially just and efficient. It starts with a brief overview of zoning and its intention, and then details the nature of the different tools available for amending zoning schemes to allow for TOD development. After unpacking the lessons from the literature on the use of proactive zoning, these lessons are used to guide future endeavours using proactive zoning to implement TOD in the South African context. A series of interviews with various experts provided insights into the various issues discussed.

The Continuum of Available Land Use Management Tools

The aim of land use management is to ensure that development and land use occurs in an orderly manner, and that properties and their inhabitants are not exposed to detrimental impacts. Zoning is a tool for achieving this: a specific zone is assigned to each parcel of land within an area, and the zoning specifies the land uses allowed and the development restrictions associated with that usage. In South Africa, land use management has a chequered history, with zoning being biased towards the interests of the wealthy and often promoting forms of development that are inefficient and not aligned to best practice. Yet, despite these weaknesses, zoning remains a tool that, if reformed, could be used to encourage an efficient, sustainable and spatially just urban form (Charlton, 2008; Görgens and Denoon-Stevens, 2013; Denoon-Stevens, 2016; Nel, 2016). One such way is through proactive rezoning.

At its simplest, proactive rezoning is the process where a municipality, of its own accord, changes the existing zoning of land parcels in its jurisdiction.¹⁵ A municipality may do this for many reasons, but generally the aim is to encourage development in a specific area and/or to control the nature of that development. A municipality has various options for proactive rezoning.

¹⁵ In South Africa, the land owner, not the municipality, usually initiates a rezoning.

A common (and the “softest”) option is the use of **overlay zones**. An overlay zone is “a regulatory tool that creates a special zoning district, placed over an existing base zone(s), which identifies special provisions in addition to those in the underlying base zone” (CLUE, 2005). The overlay zone mechanism gives rights and may impose additional requirements for development. In the case of TOD, an overlay zone would likely cover properties located close to public transport facilities and include urban design requirements aimed at achieving an attractive environment that is amenable to pedestrians and public transport, typically one that is mixed-use in nature (Cervero, 2004). For example, the general zoning scheme might allow a floor area ratio of 2 for a 1000m² property zoned General Residential 1, meaning that only 2000m² of floor area can be developed. But if an overlay zone is applied that allows a floor area ratio of 4 for properties located close to a train station, then 4000m² of floor area is now developable.

Cape Town provides an example of how an overlay zone can be used to promote urban revitalisation. In Langa, in an attempt to regularise existing illegal businesses and to stimulate new business growth in the area, 207 properties were placed under an overlay zone that permitted an increased floor area and rights for restaurants, offices, boarding houses (guest houses) or service trades (Rosseau and Van Eeden, 2016).

City of Charlotte TOD districts

A common weakness of TOD overlay zones is they are based on a “one size fits all” model. However, as the City of Charlotte illustrates, overlay zones can take many forms to suit the different types of areas

Recognising the continuum of mixed-use development, from mostly commercial to mostly residential TOD, the City of Charlotte allows for different types of TOD overlay zones:

- TOD-R, which is residentially oriented, with high density residential and a limited amount of retail.
- TOD-E, which is employment oriented, with “high intensity office uses, office support services, or residential uses in a pedestrian oriented setting”, and residential limited to 20% of new developments.
- TOD-M, which is mixed-use oriented and supports “a blend of high density residential, high intensity employment/office, civic entertainment, and institutional uses, as well as a limited amount of retail uses in a pedestrian friendly area”.

Further categories were created to allow for unforeseen circumstances whereby a proposed development is desirable but not allowed under the existing scheme rules. These include: TOD-RO (residentially oriented – optional), TOD-EO (employment oriented – optional) and TOD-MO (mixed-use oriented – optional). In these cases, the optional zone is created by applying to the council and is approved/refused on the basis of whether the proposal is deemed to be in accordance with the principles of TOD development, its impacts on surrounding properties and the area as a whole, and the public purpose which is served by the proposal (City of Charlotte, 2006). The overlay zone also refers back to the relevant station area plan when determining setbacks, floor area ratio, sidewalk design, etc., providing a method by which regulations can be sensitive to the nuances of local sites.

A second option is **incentive zoning**, whereby additional rights are granted to property owners who comply with specific requirements. This can be applied as an overlay zone or across the whole municipal area. A common mechanism for encouraging inclusionary housing is to provide density bonuses, through additional floor area or height that makes providing affordable housing more viable for developers (Garde, 2016; Smith and Saunders, 2015). For example, in the Downtown and South Lake Union areas of Seattle, a developer who agrees to build a certain number of affordable units (or pays into a city fund for affordable housing) can obtain rights for an additional 3–15m in height, which translates into 1–5 storeys of additional development rights (HALA, 2016). For TOD, incentive zoning can be used to encourage developers to provide amenities or land uses that would otherwise be deemed to be unprofitable or too costly. Incentive zoning has the potential to foster the creation of spatially just and inclusive settlements, but its potential effectiveness in a South African context is questionable given the recent experience of the City of Johannesburg.¹⁶

¹⁶ In 2008, Johannesburg approved an inclusionary housing policy that mandated and incentivised inclusionary housing in high priority public transport management areas. Evaluations of this policy have shown that it is hardly been used for a myriad of reasons, including resistance from middle income residents and the property development sector, housing price cliffs, and legal and institutional issues (Klug et al., 2013; Todes, 2012).

A third option is the municipality can decide to **change the zoning regulations** for the whole city and, in so doing, allow greater development rights in specific areas. Unlike overlay zones, which change certain rights for properties within a specific area and are strategic, changing the zoning regulations for the whole city affects all properties in the municipality and is comprehensive. One example is Mumbai, India, where the city amended its zoning regulations to allow greater development rights throughout the city (MCGM, 2016). Another example is Cape Town, where the zoning regulations were changed to allow lower parking requirements in PT1 and PT2 areas with good access to public transport (CoCT, 2015; Respondent 6 communication, 2017¹⁷). This is similar to previous amendments to the zoning schemes in Cape Town and Johannesburg that exempted property owners in the central business district (CBD) from having to provide parking. Yet, despite the reduced standards, several developers in PT1 and PT2 still provided parking at standard ratios because the future occupants of the building expect to have parking available (Respondent 5 communication, 2017¹⁸). This example demonstrates a possible limitation of using incentives over mandatory measures. Furthermore, the pattern of existing zoning rights may constrain the use of these zoning tools. In some cases, overlay zones only permit increases in density or permitted floor area, not changes in land use (Respondent 6, op. cit.). This means that the overlay zone may allow additional dwelling units on properties zoned for single residential use but not large apartment blocks, office or retail developments because these are contrary to the land use zone.

The **most comprehensive form of proactive rezoning** is where the municipality amends the existing land use rights (including densities and floor areas) or reduces development restrictions, such as building restrictions. A well-known example of this is the Bloomberg campaign, which proactively rezoned large portions of New York. Between 2003 and 2007, 188 000 lots were rezoned, of which 14% were upzoned¹⁹. This increased the residential development capacity of the city by 1.7%, which translated into 9.29 million m² of new residential floor area. Importantly, some of these new rights were obtained by property owners of upzoned properties buying rights from property owners who had downzoned.²⁰ In addition to creating new development rights, this initiative restructured where development was possible in the city and ensured that development rights were in line with the municipality's vision for the city. These upzonings had a strong TOD emphasis, as the areas chosen for upzoning were largely based on their proximity to public transport facilities (Armstrong et al., 2010). Planners have proposed similar approaches for South African cities.

Two relatively unique approaches to amending zoning regulations are found in São Paulo and in Los Angeles.

- São Paulo's Certificate of Additional Construction Potential Bonds (CEPAC) programme is a form of incentive zoning, but the additional development rights are awarded via an electronic auction to the highest bidder. The funds raised from the auction are invested in housing, roads and other infrastructure in the area (Sandori, 2012; Serva, 2014). This mechanism raises funds for infrastructure investment in a single action, prior to development occurring. In contrast, in South Africa and other countries, development contributions²¹ are typically used to fund infrastructure upgrades, making it difficult to align contemporaneous infrastructure investments with property development in the area in question.
- The Los Angeles Adaptive Reuse Ordinance came into effect in 1999 and was in response to the fear that downtown areas would be littered with blighted buildings because of the arduous regulations and the onerous process to redevelop any building built before 1974. The ordinance effectively exempts older buildings in certain areas from having to be rezoned and/or undertaking an environment review – the development is subject only to building regulations; there are no parking requirements and no limit to the number of apartments, other than a minimum apartment size. The regulatory process was reduced from 30 months to six months. The ordinance is credited with the creation of 11 965 dwelling units in downtown Los Angeles alone, which would not otherwise have been built (Chamberlain, 2015). This targeted amendment to the zoning scheme could be of interest to South African cities where many older buildings do not comply with zoning scheme regulations or their original use is obsolete.

¹⁷ Personal communication with Respondent 6, former manager in the CoCT Spatial Planning and Urban Design department (26 June 2017).

¹⁸ Personal communication with Respondent 5, private planner working in Cape Town who is involved with land use management applications and spatial plans for corridor development in the city (26 June 2017).

¹⁹ Upzoning refers to an increase in development rights.

²⁰ Downzoning refers to a decrease in development rights.

²¹ Development contributions, otherwise known as development charges, or bulk infrastructure contribution levies (BICLS), are levies typically required as a condition imposed on land use applications that result in increased development rights. These levies are used to pay for the cost of the municipal service upgrades that are required to support the increased development rights.

Lessons from the Literature

A review of the literature provides six lessons about proactive rezoning for South African cities.

- (i) Less onerous land use restrictions and upzoning are critical for encouraging private sector development. In the US, developers tend to build in areas where planning restrictions are less onerous, rather than areas that are experiencing economic prosperity (Glaeser, 2007). Internationally, land use restrictions are one of the factors that determine where developers will (or will not) build TOD (Cervero, 2004; Searle et al., 2014). However, whether this is also true in South African cities is unclear because of the paucity of local research.
- (ii) Citywide policy changes may be more politically feasible than piecemeal changes at a land parcel and neighbourhood scale. For instance, a city can systematically reduce minimum parking standards near transit stations, rather than at selective station areas, or allow accessory (second) dwelling units without additional parking requirements in all properties zoned single dwelling residential. This kind of holistic approach can reduce case-by-case decisions, even if policies are designed to account for some context-specific factors (Gabbe, 2017). Having a city-scale focus also assists in achieving economies of scale, resulting in the ability to make far greater changes than if the process is driven through multiple neighbourhood level projects.
- (iii) The tool needs to be based on the nuances of the local situation. For example, both the 22@ project in Barcelona and the CEPAC programme in São Paulo were successful in their aim of revitalising the designated areas, through allowing more diverse land uses, but used different tools. Barcelona amended the zoning code to include a new sub-zone that widened the permitted land uses on industrial properties in the area, allowing the original land uses, as well as other uses such as housing (Urban Planning Department: Ajuntament de Barcelona, 2000). In contrast, São Paulo did not change the zoning but sold development rights to raise funds for infrastructure investment. Therefore, when determining which tool to use, the specific nature of the regulatory hurdle must be understood, especially whether or not the zoning allows the desired land uses. If this is the case, then an overlay and incentive zoning approach may be the correct tool. If not, then a full proactive rezoning or amendment of the relevant zoning regulations relating to land use might be required.
- (iv) As cities change, planning processes must be framed around “how” rather than “whether” to change. Sometimes existing residents are concerned about protecting their access to amenities and the “character” of their neighbourhood. Upzoning is particularly unlikely in neighbourhoods that contain a high proportion of homeowners compared to renters. Planners can partially mitigate these concerns by linking new developments with public improvements, and through clearly written and predictably applied regulations. Nevertheless, planning for growth requires political leadership and, ultimately, will require some local stakeholders to compromise (Gabbe, 2017).
- (v) What is important is to understand where and what the market will invest in, and to ensure that the proposed zoning changes and interventions attract private sector investment to the area, in particular for TOD (Guthrie and Fan, 2016; Utter, 2009). Simply put, developers invest in developments where they identify a strong likelihood of making an adequate profit (Respondent 1 correspondence, 2017²²). Therefore, the private sector must be consulted and involved when preparing proposals to ensure that their perspectives are taken into account. This also implies that any TOD project that relies on the private sector will always be limited to what the market is willing to invest in (Pojani and Stead, 2014). These limitations must be considered when setting the vision and goals of any TOD project.
- (vi) Zoning tools, such as proactive rezoning, are best used when linked to a broader plan, and upzoning is just one of the tools used to realise the plan’s objectives (Armstrong et al., 2010). An excellent example of using proactive rezoning within the scope of a much wider project is Hudson Yards in New York, where the aim was to revitalise a former industrial area of around 146 hectares into a mixed commercial and residential area, with 13 500 housing units, 92 903m² of retail space, 185 806m² of hotel floor area, and 2 229 673m² of office space. To put this in perspective, Sandton had only 1 562 343m² of office space in 2017 (SAPOA, 2017). The Hudson Yards project had a strong TOD component, as the development of this area was tied to the extension of the No 7 subway, which was within walking distance of the majority of upzoned properties. Key to achieving the project’s objective of creating a safe and pleasant walking environment was a proactive rezoning exercise within a much wider plan. The plan included a public park and boulevard running between most of buildings in the area, an extension of the subway, and various other infrastructure

²² Personal communication with Respondent 1, private planner and municipal infrastructure expert (9 May 2017).

upgrades (HYDC, 2016). The relationship between the rezoning and the other upgrades was symbiotic: the rezoning provided a mechanism to raise the funds for the various interventions and paved the way for private sector investment, while the upgrades and broader plan for the area ensured that the development was close to public transport (a key aspect of TOD), making it even more lucrative for the private sector to invest in the area.

Applying Proactive Zoning in South Africa

What is important is to understand the nuances and differences of using proactive rezoning for TOD projects compared to other types of development, such as downtown revitalisation. The answer lies in distinguishing between TAD (transit-adjacent development) and TOD (transit-orientated development). In both cases, development occurs around a transit stop, but TOD is directly related to the transit facility. With TAD, the development has no relationship to the transit facility, which typically means it is not easy to walk between the transit stop and the adjacent buildings (Twaddell, 2009). Zoning is often a key contributor to this, as Arrington (2005), quoted in Irvine (2011: 11) recognises:

A highly experienced TOD developer laments that in the US there are far more TADs than TODs, the major distinction between the two being that TOD must be shaped by the transit. He asserts that in much of America TOD is 'illegal' in that local development codes do not allow for essential TOD features. Hence an essential first step in planning a TOD is to change local planning regulations.

While proactive rezoning in TOD focuses partially on increasing development rights, the other vital component is changing the development restrictions to create an urban form that is pedestrian friendly with a good relationship between buildings and transit stops/facilities.

In South Africa, land use management is currently in transition. After years of fragmented and different legislation at national, provincial and local levels, South Africa now has SPLUMA, which provides a uniform set of principles and processes for spatial planning and management. The Act (§24(2)) also includes the explicit responsibility to implement municipal spatial plans and policies, inclusionary housing, and include development incentives to achieve spatial goals. It also offers the scope for diverse approaches and innovation, as provinces may provide their own planning legislation, and municipalities must adopt land use schemes and adopt their own by-laws. While this implies an opportunity to learn from international case studies, the South African legal and spatial legacies demand that any methods and techniques adopted should be modified and adapted to the local social, economic, governance and legal circumstances.

Historically, provinces and municipalities have had different approaches to land use management and used different mechanisms to achieve the same results. For example, municipalities in the Western Cape use overlay zones as the main mechanism for adding restrictions or additional rights to specific areas within their jurisdiction, while the Gauteng municipalities have tended to use schedules²³ to achieve this objective. Similarly, some provinces have long used town planning schemes with permitted ("primary") and permitted-with-consent land uses, while others have used overlay zones and departures. This implies that the proactive zoning exercise will need to be aligned with the specific municipality's land use management tradition, so local planners and developers do not have to learn to use an unfamiliar planning tool.

Collaborative spatial planning

Proactive zoning is one tool among many that planners can use to implement spatial plans and initiatives, such as TOD. It must be directly linked to the spatial plans for the area, including the municipal spatial development framework (SDF), which provides the broad strategic development vision, development principles and spatial structure for the city, and the local and precinct spatial plans, which contain the details. These plans can be land use plans with some urban design elements (such as building envelopes and access points) or more detailed form-based plans that link the building envelopes to street-level improvements. As proactive zoning commonly occurs at the level of individual properties, the spatial planning need to occur at this scale, and any amendment to the land use scheme will require specific properties to be identified.

²³ A schedule contains all the details of the amendment scheme. For example, the City of Tshwane's schedule is a database containing all properties that do not have standard zoning that captures the non-standard zoning aspects, such as additional height, coverage or land uses.

While sound planning principles in a municipal SDF generally enjoy wide acceptance, differences of opinion usually arise at the level of detailed planning and implementation. For this reason, community participation around the specific proposals for a local area or precinct or amendment scheme is essential for the successful implementation of proactive zoning. The communities that need to be consulted should include the residents, property owners, local businesses and developers who are active in the area or who may be targeted for development. Each of these communities will probably have different views on the goals and form of the development, as well as the nature and extent of municipal initiatives. Local community resistance to the initiative (also known as NIMBYism²⁴) should be expected and may delay the process (Respondent 9 communication, 2017²⁵). However, one of the strengths of a proactive rezoning exercise is that it allows these types of complaints to be dealt with once off, rather than for every development application that occurs in the area. It is also the municipality that takes on the burden of dealing with NIMBYism, not individual developers

As proactive zoning is meant to entice investment in the area, developers are a critical stakeholder group whose views and “appetite” for development should shape any incentives and amendment scheme. Put simply, developers will not invest unless the proposed development is economically viable (Respondent 3 communication, 2017²⁶). Valuable ideas may also emerge from the engagement with developers on how to structure the proactive zoning amendment schemes to maximise the benefit to both the municipality and the developers and minimise development delays. Consideration should also be given to micro-developers and micro-enterprises that want to capitalise on development opportunities whose profit margins too small to interest larger developers and enterprises but can cumulatively lead to substantial changes to the urban form.²⁷ By understanding their needs, assets and dynamics, the proactive rezoning exercise can be shaped in such a way to encourage and enable the participation of micro-developers.

Legal basis and issues

Section 28(1) of SPLUMA specifically states that a municipality may rezone any land to achieve its development goals, subject to the process set out in the Act. This is also emphasised in section 21(l)(ii), which specifies that SDFs must “identify areas where shortened land use development procedures may be applicable and land use schemes may be so amended”.²⁸ The City of Johannesburg (CoJ) special development zones (SDZ) initiative demonstrates how Section 21(l)(ii) can be implemented.

The CoJ’s Orange Grove, Westbury and Brixton SDZs represent possibly one of the most ambitious land use management projects to be undertaken in South Africa. These TOD proactive rezoning projects consist of two components: a design plan that depicts the desired urban form in the respective areas (Figures 5.1 and 5.2), and a series of procedural reforms to fast-track development application. These reforms include lifting the requirements for technical reports, circulation to internal departments and public participation in the case of any land use application submitted for a property in these areas, provided that the application complies with the design plan.²⁹ The advertising and adoption of the design plan, which is informed by numerous technical reports, legally allow the omission of technical reports and public participation of individual applications. This process has numerous advantages.

- (i) Advertising the land use changes to the area as a single application, as opposed to numerous smaller applications makes it possible to model and understand the cumulative change to the area. This is not possible when change occurs incrementally.
- (ii) The faster and cheaper building process (because developers do not have to pay for specialist studies) increases the probability of developers choosing to build in these precincts rather than in other parts of the city.
- (iii) The municipality is driving the proposed changes to the land use rights and so has greater control over the type, location, form and nature of the proposed developments (CoJ, 2017).

²⁴ NIMBY: “Not In My Back Yard”

²⁵ Personal communication with Respondent 9, an expert in social and public housing who works with Trust for Urban Housing Finance (TUHF) (7 July 2017).

²⁶ Personal communication with Respondent 3, a Gauteng-based private planner with extensive experience in planning legislation (26 May 2017).

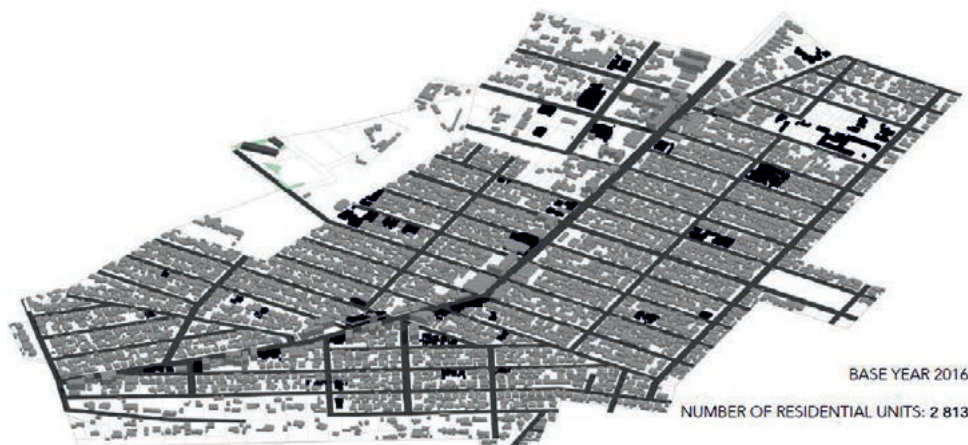
²⁷ Denoon-Stevens (2016) partially discusses this issue.

²⁸ The terminology in this regard is confusing as the act states that this must be done but then states “may be applicable”. This means that it is mandatory for a SDF to designate these areas where the shortened land use processes are applicable, but the shortened land process may not be applicable to every development in that area. For example, if the aim is to encourage a greater mix of land uses in an area that is primarily residential, it might be wise to allow for shortened land use processes for non-residential land uses, but not for applications for further residential developments.

²⁹ Respondent 3 makes proposals that are similar in some respects.

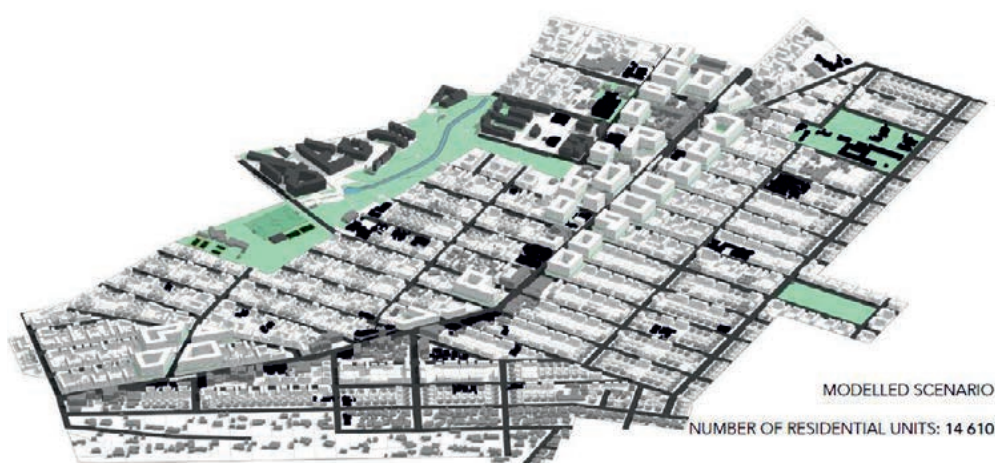
Precedents exist of municipalities undertaking proactive zoning without requiring the written consent of each property owner in a specific area. For example, in 1986/7, the Verwoerdburg Town Council proactively rezoned properties in Lyttelton Manor to encourage regeneration in the area. Most properties were zoned to allow subdivision, provided the portion with the existing dwelling was a minimum size but with no minimum size for the other portion. This initiative was very successful in attracting new investment and many young families, including people of colour once the apartheid restrictions fell away.

Figure 5.1: Existing development in the Olive Grove SDZ



Source: CoJ (2017)

Figure 5.2: Proposed development rights in the Olive Grove SDZ



Source: CoJ (2017)

The general rule is that additional rights are acceptable but reducing land use or development rights³⁰ may lead to claims for compensation. Thus, to avoid conflict, a comprehensive public participation process during both the planning and rezoning stages is necessary and, if possible, this should be an ongoing relationship as opposed to a once-off process. For example, a forum could be set up to allow for ongoing dialogue between the municipality and key stakeholders in the affected area.

Another aspect to be considered is that additional rights are not always positive and beneficial for the property owner (Rosseau and Van Edeen, 2016), as an increase in rights may lead to an increase in property rates. In Lyttelton Manor, after several owners along the main road and railway line complained about the increased municipal property tax after their properties were rezoned to permit apartments and medium density housing, many of those rights were reversed. The additional rights can be a burden especially on low-income communities where low property values mean that they are exempt from paying property taxes – for instance

³⁰ These rights are “real rights” in terms of property law (Van der Walt and Pienaar 2009).

in Langa, Cape Town, properties valued just under R200,000 were exempt from property tax. If the additional rights increase the property value to above the threshold and property tax becomes payable, household disposable income, and informal and survivalist businesses will be affected. Therefore, the proactive rezoning exercise may have to be linked to amending the rates policy, so that the properties in question are valued based on the average value of property price increases in the municipality as a whole, not the area in question (a rates' freeze). The "true" market value would only be used for the municipal valuation when the property owner initiates the rezoning. This is essentially a compromise between protecting the rights of existing owners, in particular poorer households, and achieving the goal of capturing a portion of the financial gain from increased property values.

Such a compromise speaks to one of the biggest critiques of urban regeneration projects, which is that they result in gentrification, where increasing property prices drive up the rates payable, making the area unaffordable to the poor who are forced out of the area. Amending the rates policy would not only provide some protection to households already in the area but also ensure that the municipality captures some of the monetary value of the property price increases, through charging rates based on the actual value of the property to property owners who act on the increased development rights. Such a compromise is essential to achieving the balance between an inclusive, just urban form and TOD. The financial impact of this compromise could in part be mitigated by requiring that developers pay a levy (over and above the development contribution) in order to access the increased development rights (Respondent 6 communication, 2017³¹).

An alternative is for the proactive zoning to permit the additional rights as a consent use, thus an application would be required to activate the additional rights. A consent use (or departure) is a land use that can only occur with the permission of the municipality but does not require the property owner to apply to rezone the property. A rezoning is a more difficult and comprehensive change to the zoning scheme than a consent use. Some planners take the view that consent uses are applications that should be approved in most cases and should not be approved only in exceptional cases. Therefore, a rezoning has a far greater chance of being refused.

Given the diversity of the different TOD areas, the tools used to proactively rezone a TOD area will need to be chosen and packaged in a way that responds to the unique character of the area (Respondent 8 communication, 2017³²). For example, within an area targeted for TOD, properties that do not meet the objectives of the plan (e.g. densities are too low or only one land use allowed) may need to be proactively rezoned, and an overlay zone (or consent uses) used to increase the rights of the properties with the appropriate zonings in the area. An overlay zone can create specific development requirements, including incentive provisions, to ensure that the development results in a public transport and pedestrian-friendly environment. Drawing on international examples, typical TOD overlay zones may include provisions relating to required upgrades to the abutting street, urban design parameters relating to the building interface with the street, and so forth (Community Design + Architecture 2001).

Developers may also be prepared to construct infrastructure in lieu of development charges when incentivised. This has benefits for both the developer (additional rights) and the municipality (infrastructure without the red tape of the Municipal Finance Management Act, 2003). This approach was taken for upgrading the infrastructure around Menlyn Maine in Tshwane (Respondent 2 communication, 2017). Another option is to give developers a reduction in development contributions if they include green infrastructure measures in a development (e.g. greywater systems, rain water tanks, swales, etc.) that lead to a lower demand on municipal bulk infrastructure (Respondent 7 communication, 2017³³).

Considerations in Proactive Rezoning

When evaluating the proactive rezoning process, certain issues and analyses need to be carried out. This assumes that a spatial plan is in place to inform the priorities and phases of the implementation process, and hence the choice of nodes or corridors, and properties. The level of detail in the spatial plan will determine the extent to which further analyses are required.

³¹ Personal communication with Respondent 6, former manager in the CoCT Spatial Planning and Urban Design department (26 June 2017).

³² Personal communication with Respondent 9, an expert in social and public housing who works with TUHF (7 July 2017).

³³ Personal communication with Respondent 7, a planner and property developer with extensive experience in social and market housing countrywide and more recently in Nelson Mandela Bay and Buffalo City (26 June 2017)

Analysis of demand and suitability

An analysis of the demand for additional rights is essential, as it makes no sense to provide additional rights when the existing rights have not been used. Therefore, matching the land uses and desired development, as indicated in the spatial plan, with the supply in the market is necessary to determine what gaps exist and, if there is an oversupply of rights, what is preventing their development. This may entail a discussion with developers to determine the impediments to development, which may be development contributions or low profit margins. The City of Cape Town has a Zoning Scheme Practice Notes Committee, which consists of senior planners from the City's Planning and Building Development Management Department, and representatives from the Cape Institute for Architects, the South African Association of Consulting Professional Planners and the Urban Design Institute of South Africa. Planning and architecture representative bodies can bring problems with building plans and land use processes and documents to the committee, where they can be resolved in a collaborative manner between the city and these professional organisations.

In addition to the demand analysis, an analysis of the most suitable locations for proactive rezoning projects is needed. This can be done through a spatial multi-criteria decision analysis, which considers dynamics such as public transport facilities; density of residential developments, amenities, commercial land uses; accessibility, slope angles, SDF proposals and the presence of vacant and underutilised land (Respondent 4 communication, 2017³⁴).

Lastly, land use rights may exist, but the properties may have title deed restrictions that limit the development or trigger the need for an Environment Impact Assessment (Respondent 6 communication, 2017³⁵). While the zoning of properties is open to all to view, it is not so easy to ascertain if any title deed conditions exist that will restrict development. Adjacent properties may have different title deed conditions, making development of some properties easier than others. For example, in Langenhoven Park, Bloemfontein, many residential properties are allowed two dwellings per erf, but most properties have title deed conditions permit only one dwelling house. In such a case, a proactive zoning to increase the density will have little effect until all these title deed restrictions have been cleared. Further legal clarity is required as to whether a municipality has the legal right to remove proactively title deed restrictions. This may become a guiding principle for targeting areas for TOD, specifically to ensure that title deed restrictions do not jeopardise the implementation of the overall project.

Evaluation of options

After analysing the supply and demand of land uses and development rights in and around the site (and understanding the barriers to development), the different options need to be evaluated. If the impediments are not related to development rights, then proactive zoning is unlikely to be of value, and so alternative solutions would have to be explored.

However, if the evaluation indicates that proactive zoning may stimulate development, the nature and extent of the desired additional rights or reduced restrictions would need to be determined. These could include additional land use rights (e.g. retail, medical suites, offices and banking), increased floor area, reductions in development contributions, and development controls such as parking requirements or building restrictions. The nature of the changes to the land use scheme or properties would need to be considered, along with the phasing or release of rights. If the rights are likely to be developed sluggishly, then a slow release of additional rights should be considered, perhaps as additional rights through a consent use/departure. What also needs to be evaluated are the possible reaction of developers to the additional opportunities, and the costs and benefits to the municipality (e.g. foregone development contributions, additional property taxes and the impact on the infrastructure). Attracting investment to larger land portions or non-residential land is often easier but may have negative consequences, such as the loss of employment or low-cost premises for small businesses (Gabbe, 2017).

Linking proactive upzoning to infrastructure upgrades

Proactive zoning may be one of several mechanisms to stimulate development, and may have to be supported by infrastructure upgrades and improvements to the quality of the public space in the area, which is what happened in Hudson Yards and São Paulo. It can complement a city or business improvement district, an urban development zone, or be a component of a special rating district.³⁶

³⁴ Personal communication with Respondent 4, a private planner with expertise in GIS and spatial planning (14 June 2017).

³⁵ Personal communication with Respondent 6, former manager in the CoCT Spatial Planning and Urban Design department (26 June 2017).

³⁶ See the Local Government: Municipal Property Rates Act, No. 6 of 2014 (South Africa).

Linking proactive upzoning to infrastructure upgrades is important because it provides evidence of the private sector's willingness to invest in the upzoned area and deals with the concerns of some practitioners that upzoning an area and increasing the available bulk services without a clear commitment from the private sector could result in a negative outcome, for example an oversupply of infrastructure in the TOD area (Respondent 2: pers. com. 2017). However, as noted by Respondent 8 (pers. com. 2017), the actual implementation of TOD proactive rezoning exercise may take 2–3 decades to be fully implemented, in which time the nature of the infrastructure requirements required may change considerably based on city-wide dynamics. Given this, the nature of infrastructure required needs to be closely monitored and, possibly, the studies on required infrastructure need to be updated and reviewed every 5 years.

Once the nature and extent of the proactive zoning have been determined, the normal process of council approval to proceed with amendments scheme(s) and actual rezoning application is needed. This includes a community participation process that provides opportunity to market the development opportunity to residents, property owners and developers in the area. The marketing effort can be supported by a municipal commitment to the area, through attending to existing landscaping and grass cutting, street-cleaning and clearing rubbish, as well as maintaining side-walks and streetlamps can all make a noticeable difference. This can enhance the image of the area and increase confidence in the locality's development potential, which should encourage investment.

Making TOD inclusive

The proactive rezoning/TOD development needs to be designed so that the poor can share in the benefits of such developments. In addition to the amending the city's rates policy and creating a safe built form that is accessible for pedestrians and public transport users (see also Denoon-Stevens, 2014), small-scale landlords should be empowered to participate in TOD developments. One example of this is the Trust for Urban Housing Finance (TUHF) that supports small-scale landlords along BRT lines in Johannesburg. Originally started as a philanthropic organisation, TUHF's commercial successes has resulted in an enterprise with a loan book of over R2-billion. The group's focus on small to medium businesses has led to numerous cases of impoverished individuals being helped to become landlords. For example, from using R4000 of her life savings to access a loan from TUHF, a former cleaner has become an owner and landlord of a R5-million-rand investment (HISA, 2014; TUHF, 2015).

A major issue facing TUHF is that developers who have been approved for a loan are not able to obtain the necessary statutory approvals, mostly because of bureaucratic processes at the respective municipalities. TUHF and the Johannesburg Development Agency have been discussing the possibility of developing a one-stop shop for certain types of development applications, with the aim of having all stakeholders at a single location, thereby speeding up the statutory approval process (Respondent 9 communication, 2017³⁷). This model could assist small property developers and new property entrants with limited experience and capital to overcome regulatory delays that they cannot afford (and that larger developers have the capital to survive). Such initiatives are critical for ensuring that the building plan approval processes do not result in small property developers being unable to participate and partake in the benefits of the proactive rezoning process, and thus enable "inclusive" TOD. This is true for both the supply and demand side of the value chain. An additional element of this model could be for the one-stop shop to assist smaller developers to understand what is required in terms of the proactive rezoning process – for example, the need to include in their building plans design conditions aimed at making the urban environment safe and accessible for pedestrians and public transport users.

³⁷ Personal communication with Respondent 9, an expert in social and public housing who works with TUHF (7 July 2017).

Conclusion

A wider understanding of the concept of spatial justice is necessary. In SPLUMA, the concept seems mostly about including areas that were previously excluded from land use management, although the need for “improved access to land” is mentioned. In the TOD debate, and more specifically the use of proactive rezoning as a means to achieve TOD, “improved access to land” also means ensuring that the poor are able to access the opportunities of the city, which TOD seeks to achieve through clustering of facilities around public transport facilities. In many ways, this means that with the correct configuration, spatial planning, proactive rezoning and land use management, TOD can enable radical spatial transformation.

TOD is not a new concept. Prior to the wide-scale availability of private vehicles, many suburbs developed along public transport routes (Hall, 2002). The modern challenge is attracting car users back to public transport and urban living, as part of a drive to create more compact, sustainable cities with a high quality of life, reducing trip lengths and costs, and simultaneously improving access to opportunities for those dependent on public transport. However, the mere presence of a public transport route is not sufficient to create vibrant urban nodes (Pojani and Stead, 2014). The right mix of activities, amenities, housing and access is necessary, while the composition of that mix can be different for each area (Respondent 8: pers. com. 2017). Diversity is a key component of vitality and must include employment and housing opportunities for various income groups. Proactive upzoning provides a powerful tool to help meet this challenge.

However, given that developers cannot be forced to invest in development that are not profitable or are too risky, the municipality may have to demonstrate its commitment through upfront investments in housing and infrastructure. What is needed is a nuanced local approach to designing proactive upzoning initiatives. Proactive upzoning must be developed in consultation with developers, property owners and the local community. In so doing, cities can lead the way in transforming their urban spaces to be responsive to the needs of public transport users and pedestrians, which is the key purpose of TOD, and create a spatially just and efficient urban form.

Finally, it is important to end this paper by reflecting on the question of why we should care about proactive rezoning. Proactive rezoning is one of the tools that can be used by cities to intervene in the functioning of land markets to effect radical spatial transformation, which is desperately needed in South Africa. More than two decades after the fall of apartheid, deep spatial inequalities still plague South African cities, with the poor forced to the edges of cities and consequently having to spend a substantial portion of their income to be able to access the opportunities of the cities. This is in large part a result of the underpinning land ownership and development system that informs how development unfolds. Part of the role of cities is to better use the tools at their disposal, such as zoning, to systematically generate greater equality in urban land access and use. Only then will South African cities and settlements realise the vision of becoming spatially just, and “good” places to live, work and play.

References

- Armstrong A, Been V, Madar J and McDonnell S. 2010. How have recent rezonings affected the city's ability to grow. Furman Center for Real Estate and Urban Policy. Available online: http://furmancenter.org/files/publications/Rezonings_Furman_Center_Policy_Brief_March_2010.pdf [Accessed 3 July 2017].
- CLUE (Centre for Land Use Education). 2005. Planning implementation tools: overlay zoning. Available online: <ftp://ftp.wi.gov/DOA/public/comprehensiveplans/ImplementationToolkit/Documents/OverlayZoning.pdf> [Accessed 3 July 2017].
- Cervero R. 2004. Transit-oriented Development in the United States: Experiences, Challenges, and Prospects (Vol. 102). Transportation Research Board.
- Chamberlain FF. 2015. The smart growth implications of the Los Angeles adaptive reuse ordinance. Master's Dissertation. California Polytechnic State University.
- Charlton S. 2008. The state of land use management in South Africa. Available online: http://www.tips.org.za/files/u65/land_use_management_-_charlton.pdf [Accessed 3 July 2017].
- CoCT (City of Cape Town). 2015. Municipal Planning Bylaw. *Western Cape Provincial Gazette Extraordinary*, 7414, Monday 29 June.

- City of Charlotte. 2006. Charlotte code - Part 12: Transit oriented development districts. Available online: <http://www.reconnectingamerica.org/assets/Uploads/CharlotteZoningOrdTOD.pdf> [Accessed 3 July 2017].
- CoJ (City of Johannesburg). 2017. Corridors of Freedom: Development Mechanism for Priority Precincts (Presentation). Available online: <http://www.corridorsoffreedom.co.za/index.php/public-hearings> [Accessed 3 July 2017].
- City of Santa Ana, California. 2010. Transit Zoning Code. Specific Development No 84. Available online: http://www.ci.santa-ana.ca.us/pba/planning/documents/Entire_Transit_Zoning_Code_SD-84_Document.pdf [Accessed 3 July, 2017].
- Community Design + Architecture. 2001. Model Transit-Oriented District Overlay Zoning Ordinance. Prepared for Valley Connections. Available online <http://www.reconnectingamerica.org/assets/Uploads/bestpractice230.pdf> [Accessed 3 July 2017].
- Denoon-Stevens S. 2014. Using land-use management to create transit-friendly cities. Chapter in *How to build Transit Oriented Cities: Exploring possibilities*. Johannesburg: South African Cities Network.
- Denoon-Stevens SP. 2016. Developing an appropriate land use methodology to promote spatially just, formal retail areas in developing countries: The case of the CoCT, South Africa. *Land Use Policy*, 54:18-28.
- Dewar D and Kiepiel J. 2012. Spatial development frameworks on a broader scale: An integrative approach. *Town and Regional Planning*, 61:30–35.
- du Plessis DJ. 2013. A critical reflection on urban spatial planning practices and outcomes in post-apartheid South Africa. *Urban Forum*, 25: 69–88.
- du Plessis DJ. 2017. The influence of post-1994 spatial planning policies – Can we improve on their effectiveness? In Department of Environmental Affairs and Development Planning (eds.) *Land Use Planning Law Reform in the Western Cape: The Road to Transformation*. Western Cape Provincial Government. Available online: https://www.westerncape.gov.za/eadp/sites/eadp.westerncape.gov.za/files/your-resource-library/LAND%20USE%20PLANNING%20LAW%20REFORM_THE%20ROAD%20TO%20TRANSFORMATION.pdf [Accessed 3 July 2017].
- du Plessis DJ and Boonzaaier I. 2015. The evolving spatial structure of South African cities: A reflection on the influence of spatial planning policies. *International Planning Studies*, 20(1-2): 87–111.
- Gabbe CJ. 2017. Why Are Regulations Changed? A Parcel Analysis of Upzoning in Los Angeles. *Journal of Planning Education and Research*, DOI: 10.1177/0739456X17696034.
- Garde A. 2016. Affordable by design? Inclusionary housing insights from Southern California. *Journal of Planning Education and Research*, 36(1): 16–31.
- Glaeser EL. 2007. Do regional economies need regional coordination? Harvard Institute of Economic Research Discussion Paper No. 2131. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=968671 [Accessed 3 July 2017].
- Glaeser EL. 2017. Reforming Land Use Regulations. Brookings Institute Report. <https://www.brookings.edu/research/reforminglanduseregulations/>
- Görgens T and Denoon-Stevens S. 2013. Towards facilitative and pro-poor land-use management in South African urban areas: Learning from international experience. *Urban Forum*, 24(1): 85–103.
- Guthrie A and Fan Y. 2016. Developers' perspectives on transit-oriented development. *Transport Policy*, 51:103–114.
- Klug N, Rubin M and Todes A. 2013. Inclusionary housing policy: a tool for re-shaping South Africa's spatial legacy? *Journal of Housing and the Built Environment*, 28(4): 667–678.
- Hall P. 2002. *Cities of Tomorrow*. 3rd edition. Oxford: Blackwell.
- HALA (Housing Affordability and Liveability Agenda). 2016. Implementation of Mandatory Housing Affordability Requirements in Downtown and South Lake Union: Director's Report. Available online: http://www.seattle.gov/Documents/Departments/HALA/SLU_DOWNTOWN/Director's%20Report%20-%20MHA%20Implementation%20in%20DT%20SLU.pdf [Accessed 3 July 2017].
- HISA (Housing and Infrastructure in Southern Africa). 2014. A TUHF role to play. July: 20–21
- HYDC (Hudson Yards Development Corporation). 2016. Rezoning. Available online: <http://www.hydc.org/html/project/rezoning.shtml> [Accessed 3 July 2017].
- Irvine S. 2011. *Transit Oriented Development: when is a TOD not a TOD?* Available at: http://search.ror.unisa.edu.au/record/UNISA_ALMA51108942650001831/media/digital/open/9915910612401831/12143264620001831/13143260860001831/pdf [Accessed 3 July 2017].
- MCGM (Municipal Corporation of Greater Mumbai). 2016. Greater Mumbai Draft Development Plan-2034: Draft Development Control Regulations-2034. Available online: <http://www.mcgm.gov.in/irj/portal/anonymous/qlddevplan> [Accessed 3 July 2017].

- Musvoto G, Lincoln G and Hansmann R. 2016. The role of spatial development frameworks in transformation of the eThekweni Municipality, KwaZulu-Natal, South Africa: Reflecting on 20 years of planning. *Urban Forum*, 27:187–210.
- Nel V. 2016. A better zoning system for South Africa? *Land Use Policy*, 55: 257–264.
- Pojani D and Stead D. 2014. Ideas, interests, and institutions: explaining Dutch transit-oriented development challenges. *Environment and Planning A*, 46(10): 2401–2418.
- Rosseau E and Van Eeden R. 2016. Growing small businesses in South African townships: How planning tools can facilitate economic growth. Paper presented at the 52nd *ISOCARP Conference*, Durban, South Africa, 12–16 September 2016.
- Sandori P. 2012. CEPACS: Certificates of Additional Construction Potential - A New Financial Instrument of Value Capture in São Paulo. Available online: http://sandroni.com.br/?page_id=310 [Accessed 3 July 2017].
- SAPOA (South African Property Owners Association). 2017. Office Vacancy Report: April 2017. Available online: http://www.cmsignition.co.za/download/files_1047/OVR_05052017.pdf [Accessed 3 July 2017].
- Searle G, Darchen S and Huston S. 2014. Positive and negative factors for transit oriented development: Case studies from Brisbane, Melbourne and Sydney. *Urban Policy and Research*, 32(4):437–457.
- Serva L. 2014. How São Paulo uses “value capture” to raise billions for infrastructure. Available at: <http://citiscopes.org/story/2014/how-sao-paulo-uses-value-capture-raise-billions-infrastructure> [Accessed 3 July 2017].
- Smith K and Saunders B. 2015. A tale of two neighborhoods: TOD, fair housing, and economic mobility. *Planetizen*, 3 September 2015. Available online: <https://www.planetizen.com/node/80768/tale-two-neighborhoods-tod-fair-housing-and-economic-mobility>
- Twaddell H. 2009. The ABC's of TOD: Transit orientated development. *Planning Commissioners Journal*, No.73(Winter): 1–4
- Todes A. 2012. Urban growth and strategic spatial planning in Johannesburg, South Africa. *Cities*, 29(3): 158–165.
- TUHF. 2015. Integrated Annual Report 2015: Financing Rental Housing in South African Cities. Available at: <http://www.tuhf.co.za/wp-content/uploads/2016/02/TUHF-Integrated-Annual-Report2015.pdf> [3 July 2017]
- Urban Planning Department: Ajuntament de Barcelona. 2006. Modification of the PGM (General Municipal Plan) for the renovation of the industrial areas of Poblenou, 22@ BCN activity district. Updated version: 1 March 2006. Available at: http://www.22barcelona.com/component/option,com_remository/Itemid,750/func,select/id,23/orderby,1/lang,en/ [Accessed 3 July, 2017].
- Utter MA. 2009. Developing TOD in America: The private sector view. In Curtis C, Renne J and Bertolini L (eds.). *Transit-Oriented Development, Making It Happen*. Farnham, Surrey (UK) and Burlington, VT (USA): Ashgate Publishing Company.
- Van der Walt AJ and Pienaar GJ. 2009. *Introduction to the Law of Property*. 6th ed. Cape Town: Juta.
- Watson V. 2009. The planned city sweeps the poor away: Urban planning and 21st century urbanisation. *Progress in planning*, 72(3):151–193.

Development-Oriented Township Land Use Management: Learning from Eveline Street, Katutura, Windhoek

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Land Use in South African Townships

South Africa is a country with high unemployment (Pieterse, 2009; Seekings and Nattrass, 2015), where the poor and unemployed are concentrated in marginalised townships and informal settlements beyond the peripheries of cities' central business districts and suburbs (Bond, 2010; Mkhize, 2015). Within these spatially and economically marginalised urban communities, informal economic activities provide a means of income and livelihood support. It is estimated that South African has approximately 1.57 million small micro-enterprises (BER, 2016) creating about 2.695 million informal jobs (Stats SA, 2017). A survey of over 10 000 micro-enterprises across nine South African townships uncovered thriving informal economies (SLF, 2016).³⁸ These informal businesses provide alternative strategies for income generation and livelihood support in contexts where formal employment opportunities are extremely limited.

Yet informal business owners are not legally able to use their properties in economically valuable ways, such as running small businesses, and often experience negative consequences for doing so illegally. At the same time, township entrepreneurs struggle to formalise their businesses because of the red tape involved in the licensing process. One such entrepreneur is Quincy, a shebeen owner in Delft, a township in Cape Town, who opened his shebeen on the high street to make ends meet. He has "tried three separate times to apply" for a licence but gave up because "the process was so bad". According to him and other shebeen owners,³⁹ "if you are doing business in a [township], you are not supposed to get a licence". This is not explicitly stated in South African land use legislation. However, provincial liquor legislation and the Business Act (No. 71 of 1991) require business licence applicants to have proof that they are operating from a property zoned for business/commercial purposes, but this zoning rarely occurs in townships (Charman et al., 2012; Parnell and Pieterse, 2010).

Formalising and supporting informal micro-enterprises present an opportunity for developing township economies and benefit:

- business owners and employees, through increased incomes and protection of the business;
- the township, through the creation of safe socialising spaces and improved business infrastructure; and
- the state, through increased tax revenues (Denoon-Stevens et al., forthcoming).

However, South Africa's current land use management system does not support this agenda. In fact, it is an obstacle to achieving this agenda. Research into South African township micro-enterprises shows that the ability to use land in multiple, interchangeable and overlapping ways is key to micro-entrepreneurs starting, growing and sustaining businesses (Charman and Govender, 2016). In informal contexts, a single piece of land takes on multiple uses, as a home, a business (or multiple businesses), and a space for socialising, thus conferring multiple forms of economic, social and cultural value on the land parcel (for example, Quincy's need to use his home space as a business space). However, in South Africa the inflexible, overly or unfairly regulatory or overly prescriptive land use management system prevent multiple, flexible land uses in townships (Berrisford, 2011; Pieterse, 2009; Turok and Parnell, 2009). This constrains the growth and formalisation of township micro-enterprises, blocks the derivation of economic value from land and quashes the potential of the informal economy to provide alternative income generation opportunities for the urban poor. By not using the land use management system as a tool for such an agenda, the opportunity for developing townships is being missed.

An important, yet under-discussed issue is the extent to which land use management in townships can help promote development. This paper does not explore in depth the role of informal micro-enterprises in township

³⁸ Between 2010 and 2015, the SLF conducted quantitative and qualitative research across nine South African townships, as part of the [Formalising Informal Micro-Enterprises project](#). The outputs of this project include a [full research report](#) and a [blog series](#) using the qualitative information gathered.

³⁹ Interviews by the SLF

contexts⁴⁰ nor the impact of the South African land use management system on such enterprises⁴¹. Its aim is to share lessons on how land use management can be used for a township development agenda. It draws on the Sustainable Livelihoods Foundation's (SLF) Unlocking Land for Micro-Enterprise Growth project, which investigates the impact of different land use management systems (primarily in South Africa) on the ability of informal micro-enterprises to use land to support income generation. The project includes research in Eveline Street, Windhoek, looking at alternative ways of managing township land use. Transit-oriented development (TOD) is used as a lens to magnify specific case details.

The transit-oriented development lens

TOD is an approach to urban development that emerged from North American cities in the 1980s (Bickford and Behrens, 2015) in response to the effect that high private vehicle usage was having on transport, spatial development and sustainability. At the heart of TOD is the premise that a land use/transport relationship oriented around ease of public transit (such as pedestrian walkways and trains) rather than private transport can lead to more spatially inclusive, sustainable cities (SAPOA and SACN, 2016). TOD has spread beyond North America but continues to be seen as a development approach for established city centres,⁴² not for townships or informal settlements. Therefore, some justification is required for using a TOD lens in this paper about *township* land use and development.

The TOD approach prioritises specific urban characteristics, such as mixed residential-commercial areas, accessible public transport options, and properties geared towards public use. Eveline Street has experienced several TOD-type changes, although the state has not made any specific TOD investments, such as pedestrian infrastructure upgrading or bus rapid transit routes, in the area. Therefore, a TOD lens helps to explain the land use management aspects in Eveline Street that have produced this development “success story” and to identify land use aspects that may still be missing.

While TOD provides a useful lens through which to understand Eveline Street, the case study also helps to shape or challenge the lens, as TOD is seldom conceptualised in township or informal contexts. This raises important questions about where urban planners imagine TOD interventions happening and how TOD can be adapted to a South African context.

The Eveline Street Case Study

Eveline Street is a high street and key transport corridor in the Goreangab extension of Katutura in Namibia (Figure 6.1). Katutura is Windhoek's outlying, north-western suburban area, comprising several formalised and semi-formalised township settlements. Katutura has had a similar development trajectory to apartheid-era South African townships, which makes Eveline Street a suitable comparison.⁴³ The suburb was established in the 1960s as a black location under a modernist land use management system, with land parcels defined by cadastral boundaries and prescribed with residential, rather than business, rights (Friedman, 2000). Since independence, the City of Windhoek (CoW) has taken various steps to redress the apartheid land use management legacy (Newaya, 2010).

⁴⁰ This topic is explored in SLF (2016).

⁴¹ This topic is explored in Denoon-Stevens et al. (forthcoming).

⁴² See [the TOD Institute](#), [the Sustainable Cities Institute](#), or [Transit Oriented Development](#) for examples of how TOD is traditionally imagined in established cities (all US examples).

⁴³ For a more detailed historical account of Katutura, or further information on the research project, its methodology and findings, please consult the [full research report](#).

Figure 6.1: Overview of Eveline Street research site



In 2006, in response to concerns about unlicensed liquor trading, the CoW resolved to facilitate the formalisation of businesses (including liquor-based businesses) along key high streets in Katutura. Eveline Street is the busiest and best-known nightlife and leisure destination of the high streets selected. In 2006, most of the 50 bars in Eveline Street were unable to obtain liquor licences because they were operating from residentially zoned properties. These businesses could only be formalised if the sites were rezoned from residential to commercial, a complex process that less than 10 businesses had undertaken. As the aim was to regulate the liquor trading but not shut down income-generating businesses,⁴⁴ the CoW decided to create legitimate business corridors using a facilitated re-zoning process. Following public consultations in the nine streets in question (2008–2010),⁴⁵ a first, “pioneering” group of residents from all nine streets became part of the city’s facilitated rezoning process. In 2012, as the first round of rezoning was nearing completion, a new group of councillors objected to the rezoning, prompting the CoW to begin a new round of stakeholder consultations. To date, no properties earmarked for rezoning have legally been rezoned, but both the CoW and property owners are responding to opportunities as though the process was complete.

The SLF’s research project in Eveline Street sought to understand the influence of the “high street corridor” in shaping economic and business opportunities, using data collected by the CoW in 2008 and by the SLF in 2016. Aspects of the Eveline Street case are repurposed in this paper, supported by SLF’s South African research, and used as the basis for a discussion on how land use management can promote township development.

⁴⁴ Interview with CoW officials (5 April 2017)

⁴⁵ Interview with CoW officials (5 April 2017)

Figure 6.2: Businesses, taxis and infrastructure in Eveline Street

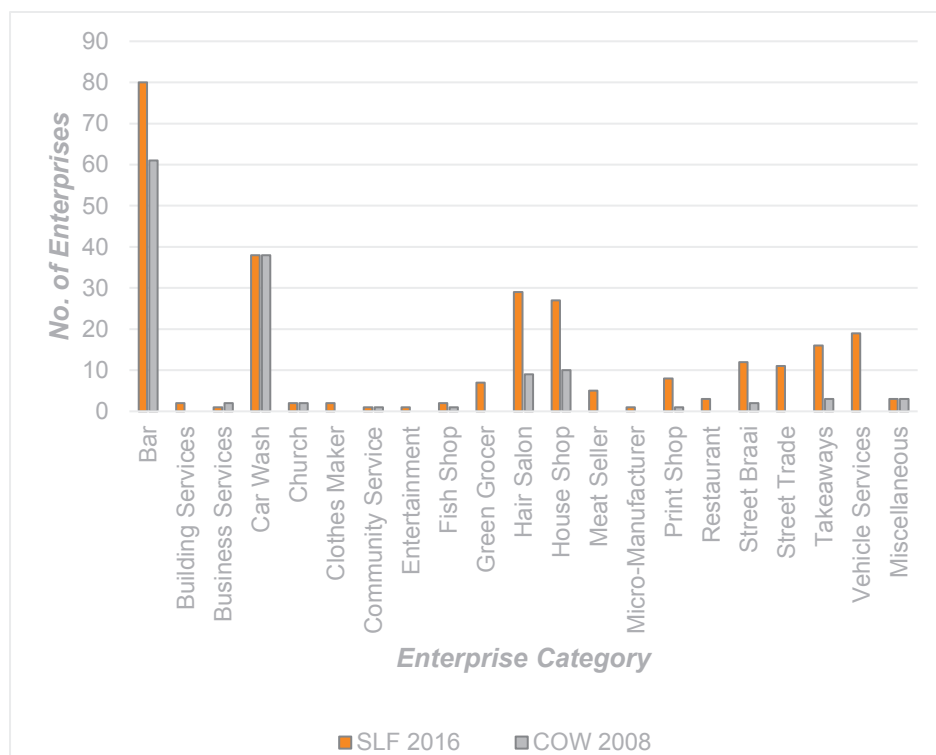


Over the past eight years, distinct and transformative changes have occurred in Eveline Street. These changes resemble key TOD characteristics, including mixed land use, bi-directional public transport along a key transport corridor, economic diversification, improved public spaces and a vibrant street culture. The changes happening in Eveline Street constitute a form of development – a hybridised TOD occurring in a township context.

Economic growth, diversification and formalisation

Between 2008 and 2016, economic activity along Eveline Street densified, with the number of micro-enterprises doubling, from 133 to 270 (Figure 6.3). Yet bars account for only a small percentage of this growth: the overall number of bars may have increased, from 61 to 80, but bars as a proportion of all enterprises on the street decreased, from 45% to 29%. Car washes, which were the second strongest form of business in 2008, also reduced their overall market share, from 29% to 14%. Over a third (37%) of the businesses are hair salons, house shops, print shops, food takeaways and vehicle services, many of which were not present on Eveline Street in 2008. This greater range of businesses indicates that the street's economy has not only intensified but also diversified and matured.

Figure 6.3: Number of enterprises in 2008 vs. 2016



The growth in micro-enterprises has been accompanied by an increase in the number of licensed (or formalised) micro-enterprises. The number of micro-enterprises with businesses licences rose from 11 in 2008 to 64 in 2012,⁴⁶ despite the complex process of obtaining and retaining a business license. Business ownership patterns have also changed, with proportionally fewer businesses being linked to bar owners. The percentage of house shops and hair salons under common ownership with bars decreased to 31% and 7% respectively. This is evidence of new opportunities emerging for entrepreneurs who do not own bars in Eveline Street.

Figure 6.4: Hair salon signage, Eveline Street



⁴⁶ The CoW conducted a further survey of Eveline Street in 2012. Because this survey was of formalised micro-enterprises only, SLF could not use the data for comparison with the 2008 and 2016 datasets; however, it does provide insight into levels of formalisation in Eveline Street over time. SLF was unable to obtain data on businesses with licenses for 2016, but proxy indicators such as investment in business infrastructure suggest the number has risen further.

Spatial transformations

Spatial changes are happening along the street, with new investments in substantial horizontal and vertical building alterations and infrastructure adaptations. These are reflected in the use of sidewalks for seating areas, parking and car washes; the provision of shaded parking, paving, shaded seating in front of bars and restaurants, and separate gender toilets; and overall improved décor and signage. Building alterations have meant that single plots can take on multiple uses, with businesses occupying the front of the plot and second dwellings established at the rear of the house. This leads to higher building densities and mixed land use along Eveline Street. The many encroachments and alterations have turned the sidewalk into a mixed-used space, used by pedestrians, car parking, economic activities and socialising. Overall, these spatial changes and alterations enable the economic and social value to be more easily extracted or unlocked from the land, and improve the overall quality and safety of public space.

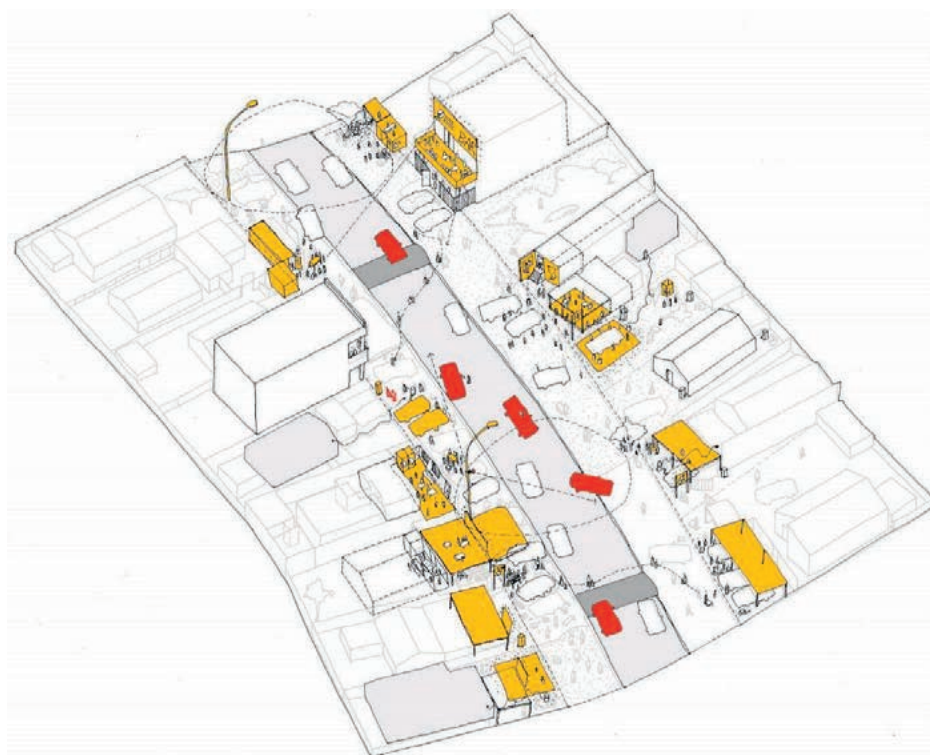
Figure 6.5: Infrastructure adaptations encroaching onto the street



Development of a nodal street dynamic

Along Eveline Street, the flow of traffic and pedestrians is not linear but random and bi-directional. Taxis, pedestrians and buses move to and from particular destinations, supporting nodal rather than linear development. This is in part because Eveline Street is a key transport corridor, where multiple forms of transport converge, going to and coming from different destinations within the street itself and greater Katutura, as well as the Windhoek central business district (CBD). Furthermore, clusters of interdependent social, spatial and economic “nodes” are found throughout the street. These nodes are areas of specific economic activity, such as bars and restaurants, with their specific patrons. The nodal clustering is driven through the actions of patrons in response to factors such as proximity, familiarity and accessibility. In spatial terms, the high street comprises a series of disconnected nodes of business and social activity that expand and contract in intensity. This fragmented distribution of businesses is supported by the flexibility of taxi operators who pick up and drop off on demand.

Figure 6.6: Nodal street dynamics



These three transformational changes – economic growth and diversification, spatial transformation and a nodal street dynamic – have enabled property owners in Eveline Street to increase the value of their investments. High-street stands are highly sought after, while properties with businesses sell at a premium. For example, in January 2016, a bar went on the market in for N\$880,000 (R880,000), and anecdotal evidence suggests that in 2017 some properties were selling for over NS1-million (R1-million).

These TOD-type changes are hugely important because they show that micro-entrepreneurs are beginning to unlock the potential value of their land and use it to generate incomes and support livelihoods. By allowing land to be used in multiple and flexible ways, the CoW is enabling micro-entrepreneurs to generate income and to have a basic platform (a piece of land) from which formalisation of their business is possible (and is increasingly happening). This is the start of a developmental outcome in township land use management. It is therefore important to understand the factors, conditions and/or policy interventions that have triggered these developmental transformations.

Causal Components of the Eveline Street Case

The research shows clearly that Eveline Street is incrementally changing, as the nature of the street's economy and infrastructure, and the way in which space is used are re-negotiated over time. These incremental changes constitute a form of development that is in some ways akin to the objectives of TOD. Economic growth and diversification, increased micro-enterprise formalisation, infrastructure investments, improved quality of public space, and a vibrant street life are signs of positive change. Eveline Street is becoming an environment for businesses to grow, people to socialise and public space to be used by and for a wider range of people – and ultimately an environment that supports the livelihood strategies of poor urban residents.

Understanding the factors that have triggered this process of growth and development is necessary to learn lessons on how to produce similar results in South African townships. This means looking at the conditions that existed before 2008 and the policy changes that kick-started the change.

Pre-existing conditions

Before 2008, three conditions existed that were important in shaping the specific economic, spatial and socio-spatial changes observed in Eveline Street.

- (i) **Existing businesses.** In 2008, Eveline Street was already a high street with some economic activity and home to established businesses, in particular bars and car washes. The existence of mostly unlicensed bars along the street was the primary reason for the CoW's re-zoning intervention in the first place. Without existing business activity, there would have been little need to re-zone to commercial land use.
- (ii) **Supportive architecture and infrastructure.** Specific aspects of architecture and infrastructure allowed for the spatial expansions and alterations that occurred. Firstly, the varied plot sizes along the street supported diversified and multi-functional land use, enabling businesses to occupy the street edge and second dwellings to be established at the rear of the house. Secondly, the symmetrical, wide sidewalk and road reserve enabled the development of a multi-functional public space, used by pedestrians and street businesses, as well as for parking cars and for socialising under shaded forecourts with seating.
- (iii) **Efficient public transport.** Affordable, efficient public transport has played an important role in facilitating growth. Eveline Street is a key transport corridor, with stronger connections to the wider suburb and to the central city than other streets in the neighbourhood, and high levels of commuter movement. This creates business opportunities, which is why certain businesses were already established along the street prior to 2008. The sedan taxis that operate throughout Windhoek have helped facilitate growth along the street, as they are relatively cheap and pick up/drop off customers anywhere along the street.⁴⁷ They provide a key link between Eveline Street and Windhoek CBD, particularly at night. In addition, taxis support many spin-off businesses, from car washes to print shops (where taxis obtain their compulsory signs), to wheel alignment, tyre repair, mechanical servicing and panel beating. Taxi drivers are also important customers for hair salons, bars (where non-alcoholic drinks are commonly available), and the various street food sellers.

Policy intervention

The CoW's policy intervention, to create a business corridor and rezone properties to business, was implemented in response to what was already happening on Eveline Street. The process to rezone the first group of properties along Eveline Street began after 2010, although in reality most of the properties used for business activities have not yet legally changed their zoning. Despite its technically incomplete state, the CoW's rezoning initiative has undoubtedly played a role in facilitating the economic growth and spatial changes seen on Eveline Street, as reflected in the following ways.

- (i) **Increase in number of businesses with licences.** As in South Africa, to be granted a business licence, businesses need to be operating from commercially zoned properties. As noted earlier, 53 business licences were granted between 2008 and 2012, many to businesses operating from properties that have not been rezoned. This is evidence of the micro-entrepreneurs' desire to obtain licences (and thus become formalised and subject to regulation) and the CoW's own expectation that the rezoning process will be completed. The CoW is treating Eveline Street properties as if they had been re-zoned and/or affording the business temporary departures/consent rights. One reason for the CoW's willingness to do this is that the CoW is in effect using formal licensing requirements as a stimulus or prompt for private investment in the street.
- (ii) **Investment in properties being used for business activities.** Many of the Eveline Street micro-entrepreneurs are investing significant resources and effort into complying with various CoW requirements, such as licensing and building requirements. Obtaining and retaining a business licence in Windhoek is a rigorous undertaking: it requires producing extensive paperwork, paying a "betterment fee" of 50% of the site's value increase, ensuring the floor area of the business does not exceed 25% of the total floor area, and meeting the city's formal building regulations. Given the requirements of formalisation, in many instances Eveline Street micro-entrepreneurs are investing significant resources and effort into compliance, rather than operating without recognising regulatory frameworks. Although most of the properties used for business activities have not legally changed their zoning, the expectation that the area will be rezoned for commercial use is strong enough for business owners to feel confident enough to invest in their businesses, as shown by the construction and spatial alterations along the street.

⁴⁷ Short distance trips costs N\$10 or R10, while longer distance trips cost N\$20 or R20. Sedan taxis have no designated stopping and pick-up areas, so pick up/drop off customers anywhere.

Figure 6.7: Vertical renovation, Eveline Street



- (iii) **CoW investment in street infrastructure.** The CoW has provided street lighting and traffic-calming measures, which is further evidence that the city considers Eveline Street to be a commercial area.

The changes in infrastructure in response to the requirements for business formalisation, even though some processes remain incomplete, suggest that the high street business corridor is a positive policy intervention, which can stimulate development. Although compliance with regulation (and formalisation) is not an absolute requirement for the existence of economic activity on a high street, the Eveline Street case study shows that it does stimulate increased growth within businesses.

Lessons for South Africa

The Eveline Street case study provides some land use management lessons that can be used to start a conversation about the type of land use management policies and interventions needed to stimulate township development in South Africa.

It should be noted that the Eveline Street case cannot be replicated in just any township street in South Africa. The street needs to have existing characteristics, such as being a transport corridor/high street, that support the desired developmental changes. Nevertheless, cities can support township development by addressing the following issues.

- (i) **Ensure secure business and land rights.** These rights are essential for giving micro-entrepreneurs surety to invest in the future of their businesses and are a platform from which further business formalisation and growth can take place. Business owners will not invest in business infrastructure or growth if they fear repercussions of operating illegally/without licences or secure business rights. This fear is a significant reason that micro-enterprises either remain survivalist⁴⁸ or close altogether (SLF, 2016). Noma, an ex-shebeen owner in a South African township, explained that when her shebeen was operational “one or two of us was arrested two or three times per week. They [the police] confiscated our stock and fined us regularly. [...] If it weren’t for the licence, I would go back to selling alcohol tomorrow”.

⁴⁸ Micro-enterprises with no dedicated businesses infrastructure and no growth goals, existing purely to supplement daily survival.

- (ii) **Re-zone residential township properties** in business corridors. Creating mixed-use or commercial areas, which accommodate multiple uses of land and a mix of businesses, is a simple policy intervention that can ensure secure rights for micro-entrepreneurs.
- (iii) **Use licensing regulations as a tool** to manage land use and encourage private investment.
- (iv) **Modify the existing urban infrastructure.** The planning of policy interventions should include looking at creating supportive urban infrastructure, such as wide pavements, varying plot sizes, street lighting, and space for expansions and alterations. Such infrastructure significantly shapes spatial transformation.
- (v) **Develop an efficient, accessible and flexible public transport system.** This is needed to support growth, facilitate economic inclusion and connect nodal points of activity. Therefore, when planning policy interventions, the existing transport modes and patterns and their relationship with land use need to be considered.

Overall, all interventions, however simple, need to respond to growth that is already happening in a particular context, and be tailored to provide the appropriate support required by that context.

Conclusion

The Eveline Street case is a semi-organic, semi-implemented form of development, arising from pre-existing conditions in Eveline Street and from the CoW policy intervention. The changes that occurred incrementally along Eveline Street are a form of TOD but within a township context. This case study illustrates how land use management can be a tool to catalyse township development.

Managing township land for such an agenda should include the following components: rezoning land to allow for business and residential use (flexible, mixed land use), provision for an efficient, flexible public transport system, street design that includes pavement width (for off-street parking and economic activities) and the provision of larger plot sizes on high street routes. These township-tailored, land use management components are specifically aimed at triggering township development. As the Eveline Street illustrates, they work because they enable micro-entrepreneurs to use their land in better and more valuable ways. Being able to “unlock” more value from their land enables township micro-entrepreneurs to pursue more secure, formalised and sustainable income generation strategies, thus building better livelihoods for themselves – which is a truly developmental outcome. This paper puts township development squarely in the realm of land use planning and argues that a township-friendly land use management system should allow for multiple uses of land, protect business rights, and provide for an efficient public transport system.

References

- Berrisford S. 2011. Unravelling apartheid spatial planning legislation in South Africa, *Urban Forum*, 22(3): 247–263. Available online: <https://link.springer.com/article/10.1007/s12132-011-9119-8>.
- Bickford G and Behrens R. 2015. What does transit oriented development mean in a South African context? A multiple stakeholder perspective from Johannesburg. Paper presented at the 34th Southern African Transport Conference, Pretoria, 6–9 July 2015. Available online: <http://repository.up.ac.za/handle/2263/57751>.
- Bond P. 2020. South Africa's Bubble Meets Boiling Urban Social Protest. *Monthly Review*, 62 (02). Available online: <https://monthlyreview.org/2010/06/01/south-africas-bubble-meets-boiling-urban-social-protest/>.
- BER (Bureau for Economic Research). 2016. The small, medium and micro-enterprise sector of South Africa. *BER Research Note 1*. Commissioned by the Small Enterprise Development Agency.
- Charman A and Govender T. 2016. The Relational Economy of Informality: Spatial Dimensions of Street Trading in Ivory Park, South Africa. *Urban Forum*, 3. Available online: <https://www.springerprofessional.de/en/urban-forum-3-2016/11002470>.
- Charman A, Petersen L and Piper L. 2012. From local survivalism to foreign entrepreneurship: the transformation of the spaza sector in Delft, Cape Town, *Transformation: Critical Perspectives on Southern Africa*, 78(1): 47–73.
- Denoon-Stevens S, Charman A, Tonkin C and Demeestère R. [forthcoming] A case of Kafkaesque complexity: the obstacles of land use management on township microenterprises formalisation, *Sustainable Livelihoods Foundation Working Paper*. Available online: <http://www.livelihoods.org.za/wp-content/uploads/2017/03/A-Case-of-Kafkaesque-Complexity-Draft-Paper.pdf>.

- Friedman F. 2000. Deconstructing Windhoek: The urban morphology of a post-apartheid city, *Working Paper No. 111*. London: Development Planning Unit, University College London.
- Mkhize N. 2015. The politics of urban land and ownership: Locating spatial transformation in the urban land question, *The Urban Land Paper Series Volume 1*. Johannesburg: South African Cities Network. Available online: <http://www.sacities.net/wp-content/uploads/2015/10/Urban-Land-Series-Vol-1-SACN-2015.pdf>.
- Newaya T. 2010. Rapid urbanization and its Influence in the growth of informal settlements in Windhoek, Namibia. A thesis submitted to the Cape Peninsula University of Technology in fulfilment of the requirements for an MTech in the faculty of Town and Regional Planning.
- Parnell S and Pieterse E. 2010. The right to the city: institutional imperatives of a developmental state, *International Journal of Urban and Regional Research*, 34(1): 146–162.
- Pieterse E. 2009. Post-apartheid geographies in South Africa: Why are urban divides so persistent? Paper presented at Workshop Interdisciplinary Debates on Development and Cultures: Cities in Development – Spaces, Conflicts and Agency, Leuven University, 15 Dec 2009. Available: https://www.africancentreforcities.net/wp-content/uploads/2013/10/post-apartheid_geographies_pieterse_15dec09.pdf.
- Seekings J and Nattrass N. 2015. Policy, Politics and Poverty in South Africa. London: Palgrave Macmillan UK.
- SAPOA (South African Property Owners Association) and SACN (South African Cities Network). 2016. Developing a Collective Approach to Mixed-Use Development in Transit-Oriented Development Precincts. Available online: <http://www.sacities.net/wp-content/uploads/2016/PDF/TOD%20Report%202016-web%20version.pdf>.
- Stats SA (Statistics South Africa). 2017. Quarterly Labour Force Survey, Quarter 4: 2016. Statistical Release P0211. Available online: <http://www.statssa.gov.za/publications/P0211/P02114thQuarter2016.pdf>.
- SLF (Sustainable Livelihoods Foundation). 2016. South Africa's Informal Economy: Research findings from nine townships. Available online: http://livelihoods.org.za/wp-content/uploads/2016/06/SLF_Booklet_Lowres_Web.pdf.
- Turok I and Parnell S. 2009. Reshaping cities, rebuilding nations: The role of national urban policies, *Urban Forum*, 20: 157–174. Available online: https://www.africancentreforcities.net/wp-content/uploads/2013/10/turok_and_parnell_2009.pdf.

A Critical Review of Land-Based Financing for Inclusive Urban Development

Simon Halvey, Joanna Ryan and Matthew Townshend

As South African municipalities seek innovative methods to promote inclusive urban development and address historical settlement injustices, transit-orientated development (TOD) has become a popular concept on which many metropolitan spatial plans are centred. TOD focuses on inclusivity, mixed land use, densification and pedestrian-oriented movement around major transport nodes. TOD represents the intricate relationship between transit⁴⁹ and development⁵⁰, and essentially seeks to alter the built form of the city in order to optimise the movement patterns of people and goods, social equality and economic development (COCT, 2016).

A key question for municipalities is how to finance TOD and other development projects within a constrained fiscal environment where local governments are under increasing pressure to use their own revenues to fund infrastructure and development investments. A popular mechanism to emerge is land-based financing (LBF), of which land value capture (LVC) is a component. A substantial literature explores the potential for LVC in South Africa (Santos et al., 2017) and, over the past few years, there have been significant advancements in policy and legislation (National Treasury 2012; Savage, 2009). The National Treasury Policy Framework for Municipal Development Charges, the Spatial Land Use and Management Act (SPLUMA) of 2013, and various policies developed by the cities of Cape Town and Johannesburg have sought to formalise and promote the practice of LVC (SACN, 2017).

Given land's social, historical and political roles in South Africa, the question is whether LBF is an appropriate and effective method to raise the necessary revenue to finance inclusive development through TOD in cities. This paper explores the extent to which LBF's purposes and goals are aligned with those of inclusive urban development in South Africa. It considers the diverse values and competing functions of land, and what this mean for using land as a financial tool for development. It also examines the tensions between using public land assets to generate revenue or using the land to address historical spatial injustice. The sale of the Old Tafelberg school site in Cape Town, which lies along a key transport route (and is therefore ideal for social housing as part of a TOD project) is included as a case study to demonstrate the pressures to accommodate land's alternative functions and the practical difficulties faced by authorities when implementing LBF. The paper concludes with suggestions of how municipalities could maximise the social benefits accruing from urban development financed through land. LBF can be implemented in a more inclusive manner, including policy adjustments that may be required for cities to achieve this objective.

Land-Based Financing

LBF of infrastructure can be divided into three categories: developer exactions, value capture, and land asset management (Peterson, 2008).

- (i) **Developer exactions, or charges**, oblige a developer to finance part of or all the external infrastructure needed to deliver public services to the development site. This infrastructure can include subdivision of roads and access to highways, and trunk lines for the delivery of water and sanitation. Although developers bear the upfront costs, they can recover these costs when they sell the developed land.
- (ii) **Value capture** is based on the principle that the benefits of urban infrastructure investment are capitalised into land values. It is "the appropriation of value, generated by public sector intervention and private sector investment in relation to an underused asset (land and/or structure), for local re-investment to produce public goods and potential private benefit" (Huxley, 2009: 7). The principle underpinning LVC is that a private landowner benefits from the increased land value that results from public investment, and that part of that public expenditure can be recouped through the capture of the increased land value (Peterson, 2008). Authorities can draw on a range of instruments, including policy and legislation, to recoup the benefits that accrue to the private sector. These proceeds can then be channelled into further infrastructure and other developments.

⁴⁹ The operational/access imperative of an urban environment.

⁵⁰ The spatial manifestation of those that are within the urban economy

- (iii) **Land asset management** uses public property assets to generate revenue through the sale or lease of publicly owned land (Peterson, 2008). At the same time as generating revenue, the sale of underutilised land accelerates private investment in locations that are critical to urban development. The strategic sale of government-owned land can steer private investment towards supporting urban development goals. The case study discussion explores the policy rationale underlying the transactions, which is as important as the revenue generated (Peterson, 2008).

LVC is a specific application of the wider approach of LBF, although the two terms are sometimes used interchangeably. Furthermore, developer extractions are closely linked to development charges, which are considered a cost-recovery mechanism of LVC, rather than a distinct category of LBF (ULM, 2012). For the purposes of this paper, the term LVC includes developer extractions, and LBF includes both LVC and land asset management mechanisms.

The Value of Land in South Africa

How land is valued is a critical part of the discussion. In South Africa, land has multiple – financial, economic, social, justice, historical and political – functions and values that are not always aligned. Stakeholders have conflicting and are often incompatible interests. For instance, municipalities are under pressure to generate revenue using their available assets, including land. However, this revenue-generating function is restrained, to some extent, by the social and historical justice function that seeks to use land in an inclusive and equitable fashion. And so, affordable housing in the city centre may be a socially desirable use of land, but it conflicts with the income-generating ability of that same piece of land. Land is also used as a political tool, to promote specific agendas, with various parties campaigning on the issue.⁵¹ Depending on which side of the issue a political party finds itself, land can be used either to support or undermine the financial and social functions of land.

These tensions over the multiple values of land have important consequences for LBF in South Africa. In general, LBF mechanisms focus on the financial or economic value of land as a productive asset whose value can be leveraged to generate income. However, municipalities have to balance disparate interests, where the outcomes of LBF do not necessarily trump the other obligations. While national legislation and policy provide a framework to guide municipal development and to formalise the implementation of LBF, it does not consider whether the approaches are compatible. No practical guidance is offered for municipalities on how to achieve the divergent outcomes, which results in a tricky, and often volatile, environment in which LBF is to operate.

Land-Based Financing and Inclusive Urban Development in South Africa

Two pieces of national legislation and policy guide the actions of municipalities and provincial governments in their land use management and development planning, and LVC (development charges).

- (i) SPLUMA, which aims to develop a “uniform, effective and comprehensive system” of planning that “promotes social and economic inclusion” (RDLR, 2013). A key development principle is spatial justice, in which spatial and development imbalances must be redressed through improved access to and use of land. This means extending the city’s development expenditure to include previously marginalised residents and areas. It assumes the existence of development charges and empowers municipalities to approve land development applications subject to the payment of such a charge.
- (ii) The National Development Charges Policy Framework, which deals with the challenges faced in successfully implementing development charges, and seeks to regulate and formalise the application of these charges.

However, SPLUMA and the National Development Charges Framework do not provide implementation details. SPLUMA provides the context and overall aim of spatial planning and land management to realise inclusive development, but the details of exactly how to achieve this are left to local governments and municipalities to determine. Likewise, the National Development Charges Policy Framework does not specify how development

⁵¹ Daily Maverick. 2017. ‘Analysis: Land – real problem, great political tool’. <https://www.dailymaverick.co.za/article/2017-03-27-analysis-land-real-problem-great-political-tool/#.WUjmAGiGPIU>

charges are to be calculated, who should be exempt, and when and where they may not be appropriate. Furthermore, neither document acknowledges the tensions of simultaneously pursuing the goals of inclusive development and income generation.

Three key considerations for successful LVC in the South African context have been identified (McGaffin, 2011).

- (i) Policy objectives must be clear and non-contradictory. For example, if the aim is to maximise the revenue generated from value capture, then the project should not be overburdened with social outcomes such as housing provision.
- (ii) Value capture mechanisms are only successful if market conditions allow for the creation of surplus value over and above the expenditure costs.
- (iii) Certain mechanisms require the ability to ringfence revenue for specific types of expenditure and locations, which means having the appropriate institutions, policies and legal frameworks to structure and facilitate these activities.

The ringfencing requirement is particularly problematic for the pursuit of inclusivity. For LVC mechanisms to be viable and successful, the additional taxes and charges levied must be linked to the benefits of the infrastructure or services received. In other words, income generated through these mechanisms must be invested in the same area or specifically on infrastructure upgrades. According to international experience, the value of public investment is best captured through ringfencing revenues collected in the locality of the infrastructure (National Treasury, 2016; Savage, 2009; ULM, 2012). However, LVC mechanisms can result in the revenue being made available for a different project. This ringfencing requirement does not apply to revenue generated through the lease or sale of publicly owned land (land asset management), as the revenue is from a public-sector asset, not private investors in a specific locale.

LVC mechanisms can be grouped into two categories: use-related (or socio-spatial restructuring) mechanisms, and cost-recovery (or income) mechanisms (ULM, 2012). Use-related mechanisms include zoning tools, air rights, land banking and joint developments. Cost-recovery mechanisms include betterment taxes, such as those applied in city improvement districts (CIDs), land value increment taxes, tax increment financing and development charges. The prevailing sentiment is that some LVC mechanisms are exclusive (ringfenced), while others are inclusive in that the funds recovered can be used to cross-subsidise other projects (ibid). However, this perception is not often interrogated, with little to no evidence of which of the mechanisms are genuinely inclusive.

Exclusivity of Land-Based Financing

Extracting revenue from the value of land is often problematic for an inclusive and spatially equitable development agenda. Firstly, as noted above, successful LVC must be singular in its aim. If the aim is to generate as much revenue as possible, other outcomes (such as inclusive development or affordable housing) should not be considered during the decision-making process. Secondly, LBF is likely to generate the most revenue in areas where the market conditions are the most developed and where demand outpaces supply (ULM, 2012). Property taxes represent a primary income stream for municipalities. Therefore, if municipalities are looking to maximise revenue, it makes sense to invest in areas with a large and reliable tax base. This means that development expenditure should occur in areas where property values are high and can be increased through public investment, and where landowners consistently pay their taxes. Yet these areas are rarely where marginalised communities live and where development expenditure is most needed. Thus, while investing in more affluent areas may allow municipalities to maximise the short-term revenue generated from land, at the same time it entrenches the inequalities in investment patterns.

Compounding these concerns is the nature of LVC mechanisms. Cost-recovery mechanisms are strictly speaking exclusive, as ringfencing of the costs recovered is a stringent requirement for the successful application of many of the charges and taxes (National Treasury, 2016; Savage, 2009; ULM, 2012). In addition, development charges are likely to result in increased property or rental prices, as the developer seeks to recoup costs. An underlying principle of LVC is that the final beneficiary, the resident, bears the cost of the public expenditure. While this may be considered a fair outcome internationally, it is not necessarily the case in South Africa. To burden previously marginalised people with the costs of including them in urban spaces is neither inclusive nor redistributive, and may even be exclusionary.

Use-related mechanisms are also restricted in their inclusivity. Land banking is only inclusionary if the land (or income generated from it) is used specifically for the benefit of marginalised communities. Air rights and inclusionary zoning are not a commonly used tool in South Africa, and there is little to no international evidence of how these tools have been applied in an inclusive manner. Joint development agreements, which is when the state introduces low-income elements into private developments, have many difficulties in an already complex development process, with developers often reluctant to enter these partnerships, and municipalities often legally restricted from doing so (ULM, 2012).

The TOD context in South Africa further complicates the use of development charges as incentives for developers. For example, the City of Johannesburg offers specific incentives to stimulate private sector development, including rate rebates and the use of Special Development Zones (CoJ, 2017), while the City of Cape Town's TOD strategic framework contains incentives for private developers. These include financial rewards such as discounts, leveraging of city's property assets, rebates, tax holidays and subsidies, as well as non-financial inducements in the form of exemptions from certain regulatory or reporting standards (CoCT, 2016). What is not clear at this stage is how development charges, which in effect increase costs for developers, are aligned with these incentives that are intended to entice private developers to invest in TOD areas.

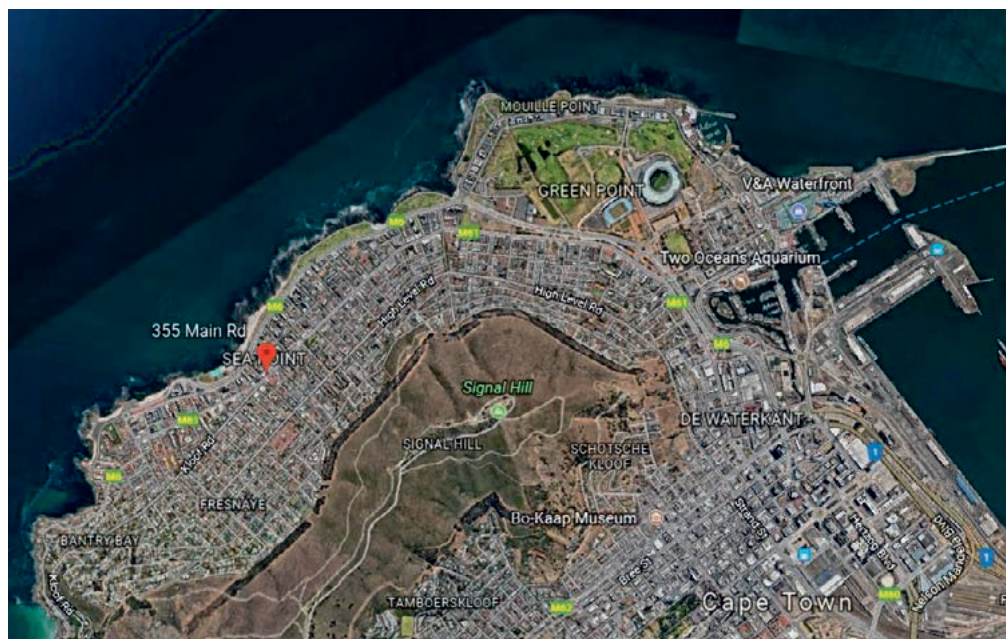
Given the need for LVC to have a singular aim, if the aim is to maximise revenue, inclusive development cannot a priority. This does not mean that inclusivity is necessarily excluded but rather that it would result not by design, but as a by-product of maximising revenue. For instance, governments can recoup some of the financial outlay on one project and use the funds to finance another inclusivity-oriented project. The land asset management tools of leasing and selling government land can also be structured to be more inclusive. However, in both cases additional policies or a continued commitment towards a pro-poor agenda are needed to ensure that the revenue generated is directed towards affordable housing and urban integration. In the absence of these, LBF mechanisms appear to be exclusive.

Case Study: The Sale of the Old Tafelberg School Site

The highly controversial sale of the old Tafelberg school site at 355 Main Road in Sea Point in Cape Town is an example of the difficulties that result from the conflicting values of land. It highlights the practical difficulties of raising revenue from LBF, while simultaneously attempting to meet the objectives of spatial restructuring and re-integrating urban spaces.

There has been considerable opposition to the decision by the Western Cape Government (WCG) to sell the site, formerly known as the Tafelberg Remedial High School, to the Phyllis Jowell Day School for R135 million. The WCG has highlighted the potential for high density, mixed-use development on the site (WCG, 2014). As Figure 7.1 shows, the site occupies an entire city block and is 3.5km from the central business district (CBD). There is good access to public transport, with eight MyCiTi stations within a five-minute walk and five MyCiTi BRT routes with service every five minutes (Figure 7.2). The city has made significant public infrastructure upgrades in the Sea Point and Green Point area. This includes the extensive MyCiTi BRT network, road upgrades, and investment in public amenities and open spaces such as the Cape Town Stadium, Green Point Park and the Sea Point promenade.

Figure 7.1: Map of the location of the old Tafelberg Remedial High School



Source: Google Maps

Figure 7.2: Proximity of the old Tafelberg Remedial High School to MyCiTi stations and routes



Source: Adapted from Google Maps

The site has financial, social and political value, depending on the interested party.

For the WCG, the value of the land is best realised through the sale, reflecting an emphasis on the financial value of the property. The property was declared surplus to government needs and sold. The proceeds from the sale of the site will be used to complete the upgrade to the provincial government building in the CBD that will be occupied by the Western Cape Education Department.⁵²

Opposition to the WCG's decision has come from across the board, including National Treasury, the Department of Human Settlements (DHS), and special interest groups such as Reclaim the City, supported by Ndifuna

⁵² Politics Web. 2017. 'Sale of the Tafelberg site to proceed – WCape Cabinet'. <http://www.politicsweb.co.za/politics/sale-of-the-tafelberg-site-to-proceed--wcape-cabin>

Ukwazi. Reclaim the City emphasises the social value of land over that of the financial value, and claims that the WCG's decision showed a deep contempt for the principle of using public land to reverse apartheid spatial planning.⁵³ The Tafelberg site would be a prime location for affordable housing as part of a TOD project, meaning that a broad diversity of residents (not just the current high-income residents) would benefit from the public investments made in the area.

The WCG's position is that the decision was taken within the context of striking a balance between inner-city development and Treasury's instruction to the province to generate revenue. Yet National Treasury (2017b) denies instructing the province to sell the "land purely for financial gain or as a revenue raising measure" and points out that the decision is contrary to "government policy statements on the importance of re-integrating urban areas in South Africa", including (among others) providing centrally located affordable housing. The national DHS has a similar position, stating that if the WCG's priority was poor people, they would prioritise their budget for development of affordable housing⁵⁴. These dissenting positions of the ANC-led National Ministries of Finance and Human Settlements, to the DA-led Western Cape government decision, reflect the use of land as a political tool to drive alternative agendas.

The contention centres on the fact that LBF relies on the financial value of land, at the expense of social value. Following a feasibility study, the WCG concluded that the site was not suitable for social housing because of high construction costs, the need for extensive cross-subsidisation to make the project viable, and the site's land use restrictions including heritage and zoning requirements.⁵⁵ For instance, as the site does not fall within a demarcated Restructuring Zone, it is not eligible for a state subsidy,⁵⁶ although other dispute this argument, claiming that declaring a Restructuring Zone is a relatively simple administrative task.⁵⁷ The WCG has committed to make other urban land available for affordable housing, such as the Helen Bowden Nurses Home. However, Ndifuna Ukwazi's response is that the use of an alternative site would not address the apparent unlawfulness of the sale, or make up for the conflicts of interest that have clouded it.⁵⁸

Given the high value of urban land, deciding between using the land in an inclusive manner and generating revenue from the land is a tough balancing act. Yet to counter the opposition to its decision, the WCG could have leveraged the government-owned land in a more equitable and inclusive manner. For example, it could have committed to using the revenue generated from the sale of the land to build affordable housing, not to pay for the development of a government building in the CBD. Such a commitment might not have completed satisfied the critics, but it would have demonstrated a pro-poor agenda.

Although the case study is about decisions made at the provincial level about provincial-owned land, the issues and considerations raised translate directly to municipalities. Cities also have to make decisions about how to use strategically located, city-owned land and where to direct any revenue generated. In its 2011 Local Government Budget and Expenditure Review, National Treasury (2011) includes the selling of municipal-owned land as a promising land-based strategy of mobilising finance for municipal infrastructure, noting that in many instances strategic urban land is owned by another sphere of government. In these cases, municipalities need to engage with the other spheres of government to develop ways in which they can facilitate development. However, this does not appear to have happened in the case of the Tafelberg. The City of Cape Town appears to have distanced itself from the decision to sell the land, declining to comment on the decision but stating that it had wanted to look at the site but was not afforded the opportunity.⁵⁹ While not explicit, the impression is that the local and provincial governments are not aligned. Such potential tensions among spheres contribute to the difficulty of balancing the need to raise revenue with the need to reintegrate cities.

⁵³ Times Live. 2017. 'Activists up in arms after on-off Sea Point school sale gets final go-ahead' <https://africa.ghanamma.com/south-africa/2017/03/23/activists-up-in-arms-after-on-off-sea-point-school-sale-gets-final-go-ahead/>

⁵⁴ News24. 2017. 'Tafelberg site not for affordable housing – WCape govt'. <http://www.news24.com/SouthAfrica/News/tafelberg-site-not-for-affordable-housing-wcape-govt-20170322>

⁵⁵ Politics Web. 2017. 'Tafelberg: The WCape govt's reply to Treasury'. <http://www.politicsweb.co.za/documents/tafelberg-the-wcape-govts-reply-to-treasury>

⁵⁶ News 24, 2017. Op cit.

⁵⁷ Groundup. 2017. Tafelberg decision: the moment of truth for Zille and her Cabinet. <http://www.groundup.org.za/article/tafelberg-decision-moment-truth-zille-and-her-cabinet/>

⁵⁸ ibid

⁵⁹ Mail & Guardian. 2017. No low-cost housing for Sea Point. <https://mg.co.za/article/2017-03-24-00-no-low-cost-housing-for-sea-point> Accessed 14.06.2017

Conclusion

LBF options centre on possibilities represented by the financial value of land, but little attention has been paid to the practicalities of satisfying the many urban role-players and their divergent land objectives. National and local government implementation plans gloss over the difficult questions, suggesting that little attention has been paid to what the multiple functions and values of land mean for LBF in South Africa. LBF is potentially exclusionary because if the aim is to maximise revenue, LBF would work better in well-developed areas with a reliable tax base, which are not areas where the previously marginalised are likely to stay. As a result, the inequalities in investment patterns would be entrenched.

Nevertheless, LBF instruments can be applied to be consistent with a pro-poor agenda. For instance, providing evidence of the impacts of LBF can help increase the support and commitment of local communities and interest groups. As the Tafelberg case study shows, a lack of support from stakeholders can cause considerable difficulties for the application of LBF. This evidence should be complemented by clear policies on how the revenue raised is to be directed. Although the ringfencing requirement of LVC severely limits the potential of using these funds to cross-subsidise projects in other areas (or to fund social housing in the same area), it does free up revenue for use on other projects. Therefore, the focus should be on how this freed-up revenue is targeted. Revenue raised through the lease or sale of government-owned land requires the same targeting. However, this does not currently seem to be a priority for government, as shown both by the Tafelberg case study and lack of a pro-poor commitment in any LBF or LVC policies and frameworks.

Cities and government should work towards an unequivocal commitment to how revenue generated through public urban land is spent. A logical starting point is an inventory of land assets owned by the different spheres of government that identifies current land use and market value. The government or city can then decide which land parcels would be more beneficial to urban development if sold to private developers, with the proceeds dedicated to inclusive and spatially equitable development projects (Peterson, 2008). The City of Cape Town appears to be moving in this direction, identifying other potential sites for inclusive housing, such as the Helen Bowden Nurses Home. Other LBF instruments could also be explored. For example, the taxation of vacant land is a form of property tax that also acts as a use-related mechanism (Brown-Luthango, 2010) and could potentially tackle two problems at once: improve the effective use of urban land, and thereby reduce illegal settlements that frequently occur on unused land; and generate an additional revenue stream for municipalities.

How cities think about using land value to achieve various policy outcomes has important consequences. These outcomes, such as revenue generation and socially desirable inclusive development, are often incompatible. Indeed, the Tafelberg case highlights the complexities involved in implementing LBF strategies in the face of these conflicting goals. However, recent concerted efforts between the Western Cape Government and the City of Cape Town have facilitated the planning of extensive affordable housing projects in the inner city and surrounds (WCG, 2017). This demonstrates that with the necessary commitment, seemingly opposing needs can begin to be addressed concurrently. Although achieving their goals of efficient, financially viable, and spatially reformative development within current revenue constraints is not straightforward, by actively committing to balancing these divergent needs, cities can make strides towards simultaneously achieving all of these.

References

- Brigham E. 1965. The determinants of Residential Land Values. *Economics*, 41: 325–334.
- Brown-Luthango M. 2010. Access to land for the urban poor – policy proposals for South African cities. *Urban Forum*, 21: 123–138
- CoCT (City of Cape Town). 2014. Development Charges Policy for Engineering Services for the City of Cape Town. Policy Number 20037. Available at: http://www.tct.gov.za/docs/categories/1276/DevelopmentChargesPolicy_2.pdf. Accessed 18.04.2017
- CoCT. 2016. Transit Oriented Development Strategic Framework. Available at: <http://www.tct.gov.za/docs/categories/1788/Approved%20City%20of%20Cape%20Town%20TOD%20Strategic%20Framework%20V1.0.pdf>. Accessed 18.04.2017
- CoJ (City of Johannesburg). 2017. Corridors of Freedom. Available at: <http://www.corridorsoffreedom.co.za/index.php/development-incentives>. Accessed 18.04.2017
- Huxley J. 2009. Value Capture Finance: Making urban development pay its way. London: Urban Land Institute.

- Infrastructure Australia. 2016. Capturing value: advice on making value capture work in Australia. Reform Series publication. Available at: [http://infrastructureaustralia.gov.au/policy-publications/publications/files/Capturing Value-Advice on making value capture work in Australia-acc.pdf](http://infrastructureaustralia.gov.au/policy-publications/publications/files/Capturing_Value-Advice_on_making_value_capture_work_in_Australia-acc.pdf). Accessed 22.03.2017
- McGaffin R. 2011. Value creation? Value capture? An assessment of three different types of transport interchanges. Paper presented at the 30th Annual Southern African Transport Conference 11-14 July 2011 "Africa on the Move", CSIR International Convention Centre, Pretoria, South Africa.
- National Treasury. 2011. Local Government Budgets and Expenditure Review. Available at: <http://www.treasury.gov.za/publications/igfr/2011/lq/09.%20Private%20finance%202011%20LGBER%20-%20Final%20-%2009%20Sept%202011.pdf>. Accessed 15.06.2017
- National Treasury. 2016. National Development Charges Policy Framework. Available at: [https://csp.treasury.gov.za/Resource%20Centre/Conferences/Documents/Catalytic%20Urban%20Redevelopment%20Projects/Day%203/Clement Mulamba CSP Presentation.pdf](https://csp.treasury.gov.za/Resource%20Centre/Conferences/Documents/Catalytic%20Urban%20Redevelopment%20Projects/Day%203/Clement_Mulamba_CSP_Presentation.pdf). Accessed 27.03.2017
- National Treasury. 2017a. Cities Support Programme. Available at: <https://csp.treasury.gov.za/Pages/default.aspx>. Accessed 04.05.2017
- National Treasury. 2017b. Treasury expresses concern over Tafelberg Remedial school site sale. Available at: <http://www.gov.za/speeches/treasury-expresses-concern-over-tafelberg-remedial-school-site-sale-14-apr-2017-0000>. Accessed 20.04.2017
- Peterson G. 2008. Unlocking Land Values to Finance Urban Infrastructure. Trends and Policy Options Series. Washington, DC: PPIAF.
- Santos V, Alorro R and Goliath G. 2017. Land-based Financing Tools to Support Urban Development in South Africa. Cities Support Programme. Available at: <https://csp.treasury.gov.za/Resource%20Centre/Conferences/Documents/Executive%20Leadership%20Programme%20Accelerating%20City%20Transformation/CG10%20Land%20based%20financing%20tools.pdf>. Accessed 16/05/2017
- Savage D. 2009. Evaluating the performance of development charges in financing municipal infrastructure investment. Discussion Paper. Available at: http://siteresources.worldbank.org/INTSOUTHAFRICA/Resources/Development_Charges-Draft_2-23_March_09.pdf. Accessed 27.03.2017
- SACN (South African Cities Network). 2017. Towards and alternative financing model for metropolitan cities in South Africa. Available at: http://www.sacities.net/wp-content/uploads/2017/02/201702_Towards_an_alternative_Metropolitan_Municipal_Finance_Model_Report_FINAL.pdf. Accessed 01.04.2017
- ULM (Urban LandMark), 2012. Improving access to the city through value capture. Available at: http://www.urbanlandmark.org.za/downloads/improving_access_city.pdf. Accessed 04.05.2017
- WCG (Western Cape Government). 2014. Main road precinct "the heart of east Sea Point". Presentation made at the Provincial Regeneration Programme Investor Conference, 26 March 2014. Available at: <https://www.westerncape.gov.za/assets/departments/transport-public-works/Documents/main-road-sea-point.pdf>. Accessed 20.06.2017
- WCG. 2017. Extensive Affordable Housing Projects in the Pipeline. Available at: <https://www.westerncape.gov.za/news/extensive-affordable-housing-projects-pipeline> Accessed 19.10.2017.

