



THE SPATIAL **TRANSFORMATION** OF SOUTH AFRICA'S CITIES

*From abstract concept to
meaning and means*





Key Messages

1

Spatial transformation is critical for the growth and development of cities. It affects economic access and efficiency.

2

Our current urban development trajectory has negative characteristics that result in cities not achieving their spatial visions.

3

In order to transform space, the power relations, institutions and capabilities in the system also need to be transformed.

4

Short- and long-term strategies are required for land, spatial planning, housing and human settlements, and transport and mobility.

5

Regulations and public instruments can be used, but market interventions by various actors are also necessary.



@tezzolds

INTRODUCTION

The 2011 State of South African Cities Report concluded with a strong directive for city governments to drive the reshaping and reconfiguration of urban space. In light of the continued peripheral housing development and poor economic growth in townships and subsidised housing areas, both national and local government need to take more seriously the densification of well-located areas. The effective devolution of human settlements and transport functions to the metros “presents a unique opportunity and offers exceptional prospects for formulating more integrated and coherent spatial development strategies for cities” (SACN, 2011: 178).

2

25-YEAR URBAN VISION: the Urban Development Framework

In the face of ongoing urbanisation, cities were to be:

- spatially and socioeconomically integrated, free of racial and gender discrimination and segregation, enabling people to make residential and employment choices to pursue their ideals;
- leaders of a robust national economy, as well as economically competitive internationally;
- centres of economic and social opportunity where people can live and work in safety and peace;
- centres of vibrant urban governance, managed by democratic, efficient, sustainable and accountable metropolitan and local governments in close cooperation with civil society, and geared towards innovative community-led development;
- environmentally sustainable, marked by a balance between quality built environment and open space, as well as a balance between consumption needs and renewable and non-renewable resources;
- planned for in a highly participative fashion that promotes the integration and sustainability of urban environments;
- marked by good housing, infrastructure and effective services for households and business as the bases for an equitable standard of living;
- integrated industrial, commercial, residential, information and educational centres which provide easy access to a range of urban resources; and
- financed by government subsidies and by mobilising additional resources through partnerships, more forceful tapping of capital markets, and via off-budget methods.

(DoH, 1997)

South Africa’s policy aspirations for urban development – principally the Urban Development Framework (DoH, 1997), the National Development Plan (NDP) (NPC, 2011) and the draft Integrated Urban Development Framework (COGTA, 2016) – present a vision of South Africa’s urban future that spatially manifests the nation’s ideals of equity, prosperity and sustainability. However, despite progress made since 1994, these ideals have yet to be reached – at least for the majority.



In cities, economic and social inequities manifest in embedded spatial imbalances: labour living far from work, suffering long and expensive commutes; racially and class-distinct neighbourhoods; black peripheries and inner cities characterised by poor and informal housing and environments; economies that follow historical patterns and are concentrated far from the poor majority. In response to these imbalances, the mantra has been “spatial transformation”.

The NDP acknowledges quite explicitly that:

A fundamental reshaping of the colonial and apartheid geography may take decades [...] For this to happen, the country must:

- Clarify and relentlessly pursue a national vision for spatial development.
- Sharpen the instruments for achieving this vision.
- Build the required capabilities in the state and among citizens. (NPC 2011: 260)

Bolstered by this national acknowledgement, the 2016 State of South African Cities report maintains that spatial transformation is core to local and national development.

UNDERSTANDING URBAN SPATIAL DYNAMICS

The systemic dynamics of cities are self-reinforcing, and how cities are configured, grow and change is inherently linked to other aspects of city performance. Their liveability, efficiency and attractiveness are also related to how economically productive they are, which typically influences how inclusive, sustainable and well governed they are.

The policy intent is clear: to build inclusive, productive, sustainable and well-governed cities. However, over the past 20 years, mixed progress has been made in addressing spatial injustice and socioeconomic inequality (The Presidency, 2014). In cities, where the majority of South Africans live, “it is harder in 2013 to reverse apartheid geographies than it was in 1994” (COGTA, 2016). Clearly, business as usual cannot continue, and different tactics are required in order to transform spatially the apartheid-designed city. However, before looking at what needs to happen, it is important to understand the apartheid legacy as well as the post-1994 changes to the urban built environment.

The apartheid legacy and post-1994 developments

Apartheid was based on racial segregation, control and deliberate dispossession and socioeconomic marginalisation of black¹ people. Black people were forcibly removed from urban land and had no legal claim to land or property ownership rights outside of the homelands. Housing for black families was created on the periphery of cities, and access of black labourers to the city was limited. Transport

1 This definition refers to black South African, coloured and Indian people.

services were designed to control access to urban areas, with commuter flows that brought people over the long distances in the morning and took them home in the evening. At the same time, the government invested heavily in road infrastructure for private vehicles and neglected public transport, which paved the way for the rapid growth of the minibus taxi industry (Barrett, 2003). Furthermore, little investment was made in infrastructure for pedestrians and other non-motorised transport (NMT) users, especially in poorer peripheral locations where (ironically) walking is the dominant mode of mobility.

In 1994, the reality for many South Africans was displacement, marginalisation, inadequate shelter, tenure and asset insecurity, and poor access to the socioeconomic opportunities. These challenges were well captured in the Reconstruction and Development Programme (RDP), a Policy Framework produced by the democratically elected government (ANC, 1994) that was followed by the RDP White Paper. A land reform process was developed, largely targeted at rural areas, while the housing programme was designed to address shelter and land reform needs primarily in urban areas. The 1996 White Paper on National Land Transport advocated a shift from private transport investment to prioritising public transport (Wilkinson, 2006), as well as compacting and densifying urban areas to increase the viability of public transport interventions.

Over the past two decades, the scale, nature and appearance of South African cities have visibly changed. For many, many people, life in the city has improved and modernised vastly: many who were previously denied full citizenship rights now have access to basic services, shelter and city resources. Transformation has been ongoing, and “far-reaching spatial transformations are happening across South Africa’s towns and cities, although at very different rates, and often taking different forms” (Harrison and Todes, 2014). The most significant public sector investments have been in low-income housing, public transport infrastructure, and bulk infrastructure for basic services provision, as well as in improved access to health and education. Parallel to this, the private sector has invested in office parks, shopping malls and residential developments, predominantly in the form of townhouses and gated estates with an emphasis on security (Schensul and Heller, 2010). People have been brought closer to jobs, opportunities and other services. However, this change has often been slow, not inclusive enough and has (in some instances) extended undesirable urban trends.

The shared urban transformation envisaged in the 1997 Urban Development Framework has not yet been achieved. Cities continue to be characterised by spatial fragmentation, socioeconomic exclusion and inequality (NPC, 2011; Schensul and Heller, 2010). Despite different intended outcomes, current systems and processes often reinforce an unequal and unjust status quo. The daunting challenge remains, that of transforming the apartheid spatial design engrained in South African urban society. It requires transforming cities, which were designed to deny spatial and socioeconomic access and to prevent urban land and property ownership on the basis of race, into cities that allow equal access to urban resources, irrespective of race, gender or class.



Undesirable current spatial configurations in cities

South African cities are a perfect example of space reflecting and reinforcing inequality (Schensul and Heller, 2010). The post-1994 intent was to transform the social alienation, injustice and inequality inherited from the country's apartheid past. The aim was to change the quality of life of people who were the victims of apartheid dispossession and injustice, through interventions such as the housing programme and adequate public transport, as well as investments in health, education and social services.

Although the lives of many have changed, especially through the delivery of more than three million housing opportunities (The Presidency, 2014), the significant public sector investments have not resulted in more equitable, inclusive and integrated cities. The spatial location of state-funded housing projects continues to marginalise the urban poor, while public healthcare and education have not translated into improved educational and health outcomes for the majority of citizens. Despite racial integration in middle- to higher-income urban suburbs, the majority of poor black households continue to live in peripheral, poorly located areas with insufficient access to opportunities and resources, and long expensive commutes to areas of employment. Unemployment is unacceptably high, resulting in widespread poverty and growing inequality.

Locational disadvantage, insufficient investment in public transport, especially in existing modes such as the minibus taxi, which services the majority of commuters in urban areas (Schmidt, 2014), continued vested interests and insufficient focus on ensuring that all urban residents enjoy full rights and access to the city, has reinforced social exclusion, poor racial and cultural integration and unjust and inequitable urban environments. The housing subsidy programme appears to have locked people into undesirable locations and maintained their existence at the margins of urban life,² and many urban residents continue to feel alienated from the city, as if they are not full urban residents.

What is clear is that South African cities are not yet working for all, and certain trends and dynamics are preventing the post-apartheid spatial vision from being achieved. These are outlined in the following sections.

Unaligned and uncoordinated development

- Lack of integrated planning and poor alignment, both vertical (across government spheres) and horizontal (across sectors, i.e. housing, transport, energy, etc.), by all, including government departments, state-owned entities and private developers (SACN and DHS, 2013).
- Slow progress in decentralising key built environment functions to city level, despite the authority for local planning already devolved to all local governments.
- Municipal approval of developments that clash with local government's own spatial transformation agenda.

² For more on this, see the work of the Finmark Trust on Housing Assets <http://www.finmark.org.za/> and the Centre for Affordable Housing Finance <http://www.housingfinanceafrica.org/>

SPATIAL ALIGNMENT: Increasing the impact of spatial investments and initiatives through a place-based perspective

COGTA and SACN commissioned a short case study to identify the challenges facing the alignment of spatial policies, plans and initiatives across government spheres. Three municipalities were included in the study:

- a metropolitan area: Ekurhuleni in Gauteng
- a fast growing city/regional centre: Rustenburg in North West
- a fast growing small-to-medium-sized town: Lephalale in Limpopo.

The study looked at the spatial and sector plans, visions, medium-term strategies and investment frameworks. Spatial alignment was considered as both project alignment or alignment to achieve service delivery targets, but also *alignment to lead towards spatial transformation over the longer term* (Pieterse et al., 2015).

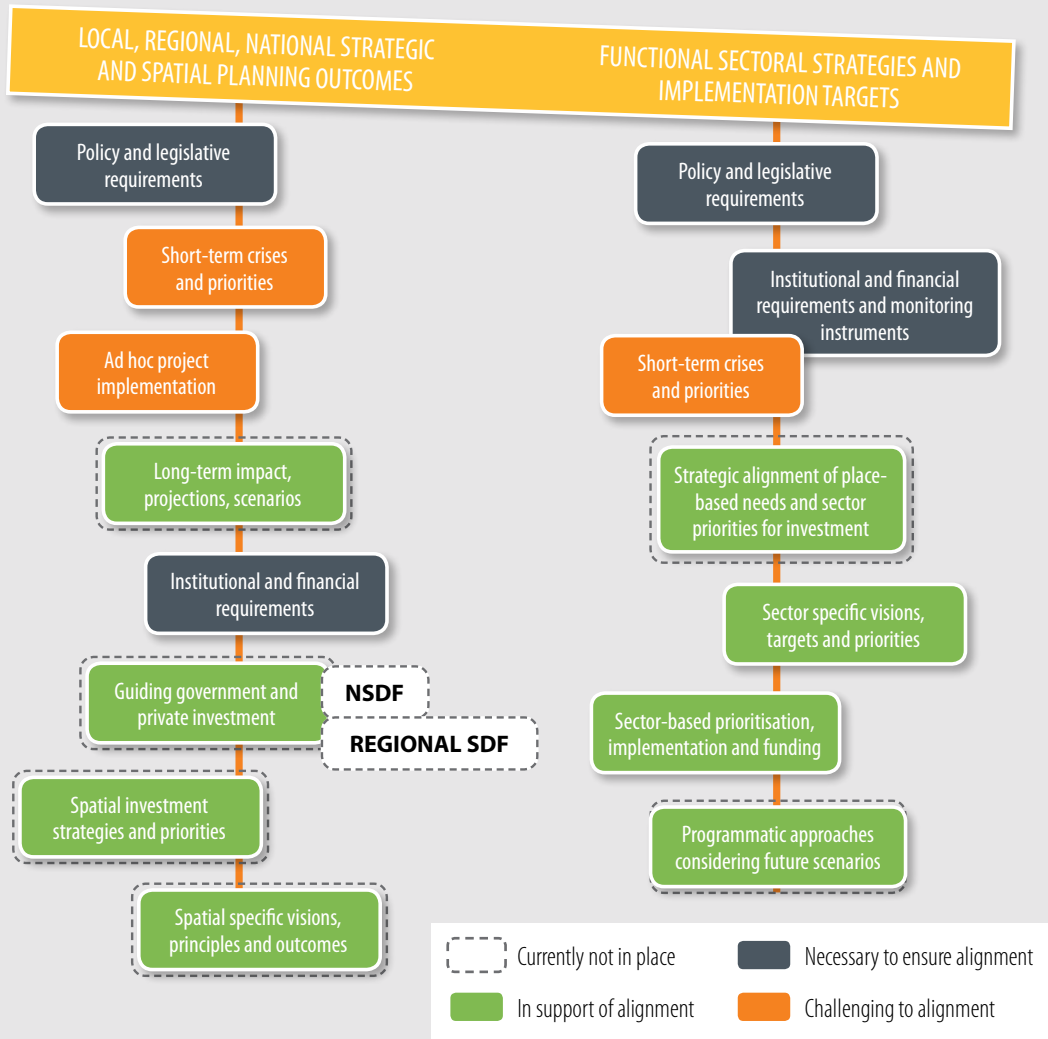
Although all government spheres invest in broadly defined “areas of priority focus for government”, the “spatial alignment” seems to take the form of many projects implemented in the same space by different spheres. Plans often refer to areas targeted for specific purposes, such as an “international port” in Ekurhuleni or the mining areas in crisis in Rustenburg or energy hubs in Lephalale, but there is little evidence of government spheres proactively coordinating their projects so as to harness the benefits of spatially targeted investments.

- **The spatial outcomes and principles contained in planning policy and legislation appear to be open for interpretation.** They are quite generic and provide little guidance for place-specific strategies, programmes, projects and investment. In addition, the spatial and sector plans lack spatial trend analyses, future projections or spatial implications of development scenarios.
- **Vertical alignment was mostly found within specific functional sectors, e.g. human settlements,** where development priorities and targets are supported by strong institutional and financial instruments. The vertical alignment of national, provincial and local sector/line department plans and strategies is quite effective. This is not surprising, as numerous sector initiatives have supporting investment frameworks, and funding and monitoring mechanisms. However, spatial priorities are driven by sector targets and catalytic projects, each with its own spatial investment logic, rather than by an integrated spatial strategy and programme.
- **The strategic spatial plans of different spheres of government are poorly aligned.** Joint regional and national discourses are needed regarding the resource and investment constraints and opportunities affecting development planning in cities and regions, especially in fast-growing areas, such as Rustenburg and Lephalale, with the increased demands on water and energy resources. The current lack of spatial guidance and strategy could potentially be addressed with the completion of the National Spatial Development Framework (NSDF) that builds on the 2006 and 2011 initiatives to develop national spatial vision.
- **The long-term visions and growth scenarios are not interpreted at a “place-based” regional level.** The potential impact of interventions by different functional sectors or



neighbouring municipalities are not evaluated, while no reference is made to intergovernmental or public-private sector service level agreements.

- **Spatial development frameworks (SDFs) seem to remain focused on managing expected land-use change driven by the private sector**, rather than on coordinating intergovernmental investment, spatial prioritisation and integrated spatial development strategies, or influencing the spatial investment logic of different sector strategies/line departments.
- **Most of the plans and instruments focus strongly on service delivery but do not include investment plans of the private sector, other government agencies or civil society.** The many economic instruments and incentives aimed at stimulating development seem to be implemented as standalone programmes.
- **Collaboration in developing integrated development strategies and aligning projects exists at municipal (or at least city and district) level.** However, municipal spatial priorities do not appear to guide those of national and provincial functional sectors or even municipal line departments.



While many national plans and policies address critical issues, such as potential energy and water shortages, vulnerability of places, etc., there is an absence of integrated national spatial development analyses, modelling of potential growth implications and strategic guidance for the future development of highly diverse regions.

Within an environment dominated by sector targets, collaboratively developing and implementing explicit spatial strategies is challenging and requires strong local, regional and national leadership. However, such strategies will not result in high-impact service delivery, transformation and long-term sustainability unless the reforms to improve spatial planning and development address existing challenges such as parallel planning processes, the plethora of planning instruments and mechanisms, and the formidable task of aligning a myriad of projects on paper and in budgets.

Continued inefficient spatial development

- Public developments (RDP housing on the periphery) reinforce city sprawl, resulting in inefficient and more costly infrastructure and services.
- Failure to invest in the townships means a lack of economic opportunities and growth close to where people live.
- Lack of affordable accommodation close to economic opportunities, and the view that informal dwellings/strategies are the only solution for the poor.

Private developments on the periphery

- Growth in higher-end peripheral developments, i.e. gated housing estates, cluster housing complexes and eco estates claim to be sustainable, but take up vast tracts of open space and encourage the use of private vehicles.
- Unconnected to the existing city fabric, these “new cities” entrench spatial and social exclusion, segregation and inequality based on class/income in place of race, and those excluded are predominantly poor and black (Landman and Schonteich, 2002; Lemanski, 2006; Landman and Badenhorst, 2015).³
- The heavy economic burden placed on city infrastructure and services far outweighs the financial benefit from property tax (SACN, 2015b).

³ <http://futurecapetown.com/2015/04/brief-gated-communities/#.VeQmVvmqBY>



URBAN FOOTPRINT: Highlighting the changes in city footprints

Since 1994, South Africa's largest cities have experienced substantial growth, as more residents settle in cities in search of employment opportunities, services, etc. Cities are under pressure, especially to contain sprawl, and their urban edges do not remain constant. The significant physical (outward) expansion of city footprints is illustrated in Figures 2.1, 2.2 and 2.3, which compare the "built-up" and "settlement" categories in the 1990 and 2013/14 national land-covers.

Figure 2.1: Cape Town: Change in built-up/urban footprint (1990–2013)

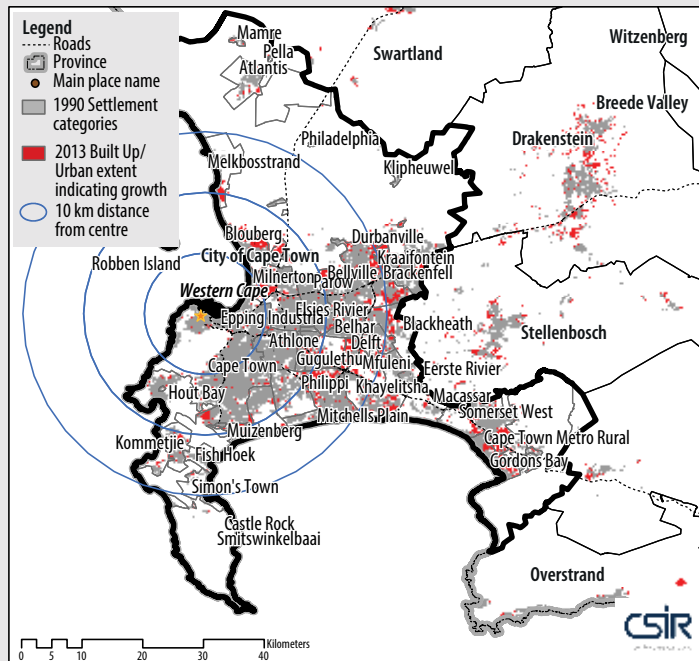


Figure 2.2: eThekweni: Change in built-up/urban footprint (1990–2013)

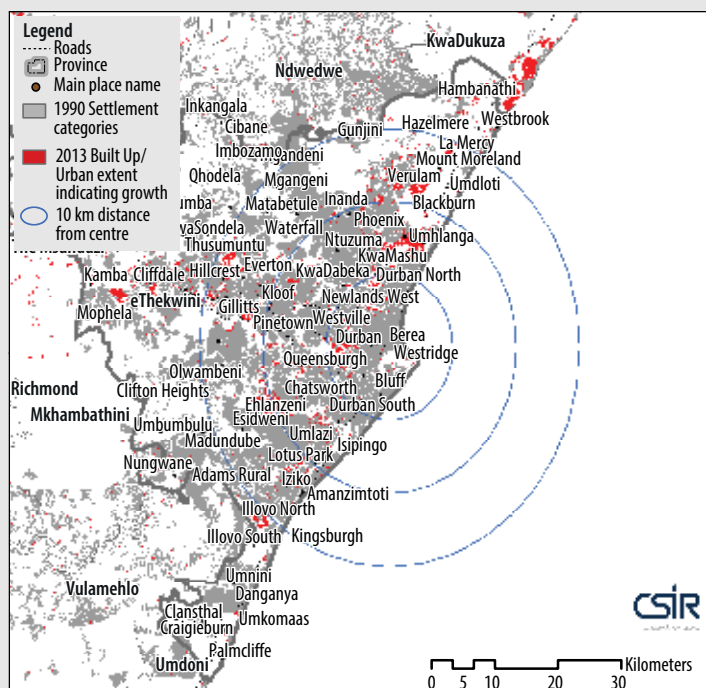
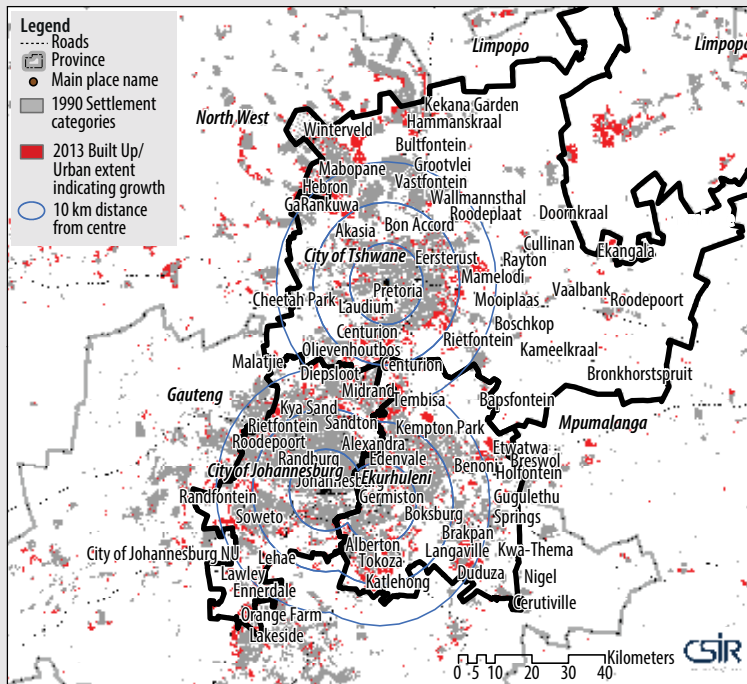


Figure 2.3: Tshwane, Ekurhuleni and Johannesburg: Change in built-up/urban footprint (1990–2013)



The red areas indicate how city footprints have changed between 1990 and 2013 (also showing 10 km distance bands from the city CBDs). Cities are under pressure to develop land on the fringes of cities, which, in turn, requires substantial infrastructure investments. In these ever-expanding cities, one of the most difficult services to provide is public transport, especially when (as in most South African cities) low-income residents live on the fringes of the cities, far removed from most employment opportunities.

Conflicting interests and lobby groups

- Powerful lobby groups (informed by the economics of cities, politics and vested interests) unduly influence decisions in cities, often outside existing governance frameworks.
- The increase of gated estates in affluent communities as a result of the economic muscle and influence of homeowner and property associations, instead of more mixed-income housing and public open spaces.
- Constant pressures and demands on government from poor communities who are most affected by unequal and unjust spatial configurations.

Good location has not translated into improved livelihoods

- A perfect example is that of Alexandra in Johannesburg where the well-located township has not translated into vastly improved livelihood prospects for its residents.
- Being located next to the Sandton economic hub has done little for Alexandra residents' power to change, influence or participate in the city.
- Un- and under-employment, as well as poor infrastructure, facilities and services, all contribute towards sustaining depressed conditions with relatively few opportunities and limited access to resources.



Built environment investments not supporting inclusive economic development

- Mixed-use, high street developments can accommodate different commercial property sizes and diverse products and services, giving owners more room to negotiate. They are more suited to SMME-type businesses and incorporate residential elements.
- Major shopping centres are built around a car-captive audience, requiring space for parking and vehicle traffic, and are less flexible and diverse than high street-style developments.
- A compact, mixed-use, high street experience provides a quality of urban lifestyle and can deter potential threats by providing urban surveillance (Jacobs, 1961; CSIR, 2000).⁴

The notion of aspirations is an important consideration in South African cities. Many urban residents in South Africa aspire to owning a car and living a suburban “house-and-a-pool” lifestyle in gated enclaves. While this lifestyle has been evident among higher-earning urbanites, many poorer residents tend to share this aspiration as their vision of success. However, besides being unlikely for the vast majority, these aspirational visions are undesirable because they do not foster or encourage social integration and cohesion, human connectivity or sustainability. They are in fact diametrically opposed to cities becoming more compact and denser. Both poor and higher-income residents need a major mind-set shift, towards new realistic, inclusive and sustainable visions and aspirations for urban living.

NEW TOWNS AND CITIES: Meeting settlement requirements in South Africa?

Each province will launch an integrated human settlement Ministerial project that will deliver a minimum of 10 000 houses and 5 000 service stands over five years (in total 1.5 million housing opportunities in five years). MinMec have decided that we will now embark on mega projects, because in this way the economies of scale will be in our favour. In these mega projects there will be a collaboration of all three spheres of government.⁵

The announcement amounted to a call to construct new towns and cities. This intent is confirmed in a booklet published by the Gauteng Department of Human Settlements (2015) that identified new cities and mega-projects to be constructed within Gauteng.

The new city (or town) concept taps into an optimistic view that future places can be designed to be better from inception, removed from the messy reality in which people currently live. As such, it is a strong political proposition that promises a material return for rhetorical intervention. It is a means of directing available investment and driving a particular form of economic growth. For example, in the United Arab Emirates, oil revenues have been directed into high-rise property investment in an attempt to diversify the economy by promoting service industry growth. Resource-derived growth has also been used in the rest of Africa to foster initiatives such as the Kigali City Redevelopment in Rwanda, the Luanda Satellite City in Angola, and the satellite cities of Tatu City, Machakos City and Konza City outside Nairobi, Kenya (Watson, 2013).

4 <http://unhabitat.org/urban-themes/planning-and-design/> and <http://unhabitat.org/urban-themes/safety/>

5 DHS. 2014. National Department of Human Settlement Budget Speech by Minister Lindiwe Sisulu

New cities can be standalone projects that are insulated from certain administrative requirements of the state, allowing infrastructure and related services to be provided when required, while realising a coherent vision for the development. Such a model is flexible and interchangeable, making it popular for private, public and non-government organisations (Karuri-Sebina and Kihato, 2012). It can be used both for single to three-storey residential developments with associated employment and recreational facilities, destined for the lower and middle classes, and for modernist, skyscraper skylines with “smart city” accoutrements focused on commercial use, catering primarily for the wealthy.

The weakness of the new city concept lies in the attempt to escape reality. The Garden Cities concept of the early 20th century was unable to maintain the original intent of a self-contained urban experience (Kostof, 1991: 75–80), which morphed over time. A primary consideration is whether the town or city has a sustainable, viable economic base, or whether it is primarily a sleeper suburb for a neighbouring urban economy. While the new towns of Stilfontein, Sasolburg and Welkom were founded on the certainty of mining and associated industries (Brockett, 1996), with the subsequent decline of the mining industry in the Free State and Gauteng, and the inability to realise alternative economic development and employment drivers, the towns have required significant state support (The Presidency, 2015).

Furthermore, new towns and cities involve the redistribution and consumption of resources. Stilfontein, Sasolburg and Welkom were not just a response to an economic opportunity, but also a physical application of racial segregation (Brockett, 1996) and, by extension, regulated access to opportunity and resources. In much of South Asia, the development of new cities in peri-urban areas meant large-scale removal of the poor based on government-led expropriation (Watson, 2013). The redistribution of resources means that infrastructure delivery is skewed towards meeting the needs of the new city projects at the expense of meeting the needs of the poor, and of the existing urban infrastructure system(s) in which such projects are embedded (Karuri-Sebina and Kihato, 2012). Little is done to question the resource requirements of individual new cities and the impact on water and power supply, the need for public transportation solutions, the lost agricultural potential, or whether the projects merit the amount of resources used when compared with the needs of the broader population. New towns and cities are designed to circumvent government regulation and speed up delivery, but are also a development model open to corrupt practice.

Within government, there is mismatch between differing urban strategies: the Department of Human Settlements is introducing mega-projects, while National Treasury and local government are promoting “urban compaction, integration and densification by encouraging new housing on well-located land within cities and improving public transport connections between neighbourhoods and jobs” (Turok, 2015). This mismatch is yet to be addressed. Imprudently pursuing (or even consciously abusing) the new city agenda represents a substantial risk in the South African context. A careful balance is needed between meeting the shelter needs of the poor majority, ensuring that such developments have the necessary sustainable economic (business-generating and job-creating) capacity, and that sufficient rates and tariffs are paid to local governments to enable such settlements to be serviced and maintained.

Therefore, a new town or city approach should be considered very prudently within the South African context, and should be a coordinated effort by a range of departments and spheres of government responsible for realising sustainable human settlement: South Africa quite literally cannot afford ghost cities or towns.



The cost of fragmentation

In addition to its social and political implications, the current spatial form has serious cost implications for the state, urban residents and the environment.

- For the state, and especially local government, these implications relate to service delivery, the ability to deliver on spatial transformation goals and fiscal viability. The cost of providing services is higher in sprawling urban environments because services have to be provided over long distances to where most low-income housing has been built (FFC, 2011).
- For households, the fragmented and peripheral locations mean that they spend more time and money on transport. Despite the recent unprecedented levels of spending on public transport, the impact on overall costs as well as for South African commuters is negligible (Stats SA, 2013). Services have not necessarily become more affordable and, while service offerings have improved for the few fortunate enough to use newly introduced systems, impacts are minimal across the entire network (Vaz and Venter, 2012).
- For the environment, the city's natural resource base is affected by the increasing vehicle usage (and subsequent levels of air pollution and greenhouse gas emissions), which is driven by the un-coordinated service offerings of public transport, and continued investment in private transport.

TOWARDS ACHIEVING THE “SPATIALLY TRANSFORMED CITY”

Transformation can be seen as “a spatially defined, socially embedded process; [...] an interrelated series of materially driven practices, whereby the form, substance and overall dimensions of urban space are purposefully changed to reflect the principles of a more equitable social order” (Williams, 2000: 169). This is different from reformation, which tends to be incremental, and can be more superficial or selective (“tweaking”). Transformation, as described more than a decade ago by Williams, is a “programmatically, plan-oriented, project-directed effort to change the unequal access to and occupation/ownership of socio-politically differentiated space in South Africa... [It is] a multi-dimensional open-ended, fluid process of change, organically linked to the past, present and future” (ibid).

It is increasingly acknowledged that “spatial transformation” is required to address the injustices of the past. However, it is a concept with rather abstract and fluid meanings. The term has been used to refer to “major urban change or restructuring”, with very loose application in public policy, academic research and popular writing (Turok, 2014: 74). “Spatial transformation” is sometimes used interchangeably with the concept of urban restructuring, which can also refer to actions that reform while retaining the underlying power structures in order to minimise disruption and turmoil instead of pursuing fundamental change (Oranje, 2014).

Over the past two years, the understanding of the government's role in shaping and transforming cities and towns in South Africa has changed. The transformation of space is fundamentally linked to other key structural transformations: of institutions, capacity building, and the reconfiguration of power and influence (Williams, 2000).

Fundamentally, the transformation of space can be equated to the living experience of urban dwellers. An inclusive, productive, sustainable and well-governed city is one in which residents experience a high quality of life, and both benefit from what the city offers and contribute towards making and shaping the city. It is important to understand that certain pathologies manifest in the urban environment when people are not able to determine, influence and ultimately access opportunities (Max-Neef, 1992). For example, the pathologies associated with fear and violence have led to the middle class retreating into gated communities and security estates, further adding to urban exclusion and fragmentation (Landman and Schonteich, 2002; Landman and Badenhorst, 2015).

From the many happiness index surveys conducted in cities and regions around the world,⁶ what is starkly evident is that cities where citizens share the “in-between” space seem to be most happy.⁷ This in-between space is the public space and facilities (parks, roads, museums, libraries, etc.) that allow for the expression of an urban identity and are easily accessible to all who live in the city. Parks are an excellent example of “in-between” spaces and are vital places for social interaction and engagement between people from all walks of life. Parks and the way they are used reflect the social cohesiveness of a citizenry. The vibrancy found in many of the most liveable cities is eroded when public open space is only reserved for residents who live in that community. Roads are also important shared public spaces. In cities where citizens are most satisfied, roads are designed to accommodate multiple modes of travel, including walking, cycling and public transport.

Furthermore, in cities where shared space is appreciated, residents are more likely to be open to denser and more compact living environments, and to forego privately owned open space and transport options. This provides greater sustainability, as space and resources are used more efficiently. Improving the perception of safety in these public spaces is another critical aspect, as otherwise people choose to insulate themselves from the broader society, which only intensifies inequality, deprives access to public space in cities and erodes the potential for social cohesion. Close-knit and socially engaged communities also tend to be more active in governance structures (GGLN, 2013). Achieving this type of urban space requires the state to manage the public realm in partnership with communities, individuals and the private sector.

At the same time, a city cannot be all things to everyone and the urban experience may vary from city to city. While a city should be equitable, the reality is that some level of inequality will be present because of the existing economics and the inherited realities of cities: those with higher incomes and standard of living are able to access additional benefits from the city. However, this should not be at the expense of equitable access for all. Cities will always contain higher-income neighbourhoods, and so public investments should prioritise the public good by (for example) investing in infrastructure for public and pedestrian transport instead of private vehicles, or ensuring that well-located land and

6 Gallup-Healthways Well-Being Index

7 <http://www.theguardian.com/society/2013/nov/01/secrets-worlds-happiest-cities-commute-property-prices>; <http://www.citylab.com/housing/2014/09/what-makes-us-the-happiest-about-the-places-we-live/380469/>; Montgomery (2013).



associated land uses benefit all, not just those who live within an accessible distance. Another example is transforming large parking lots in well-located areas, even sometimes temporarily, to other uses and demonstrating the wasted potential of such land in transforming cities (Ben-Joseph, 2012).^{8,9}

Characteristics of quality urban environments

Urban residents are content when they feel as though they have a hand in shaping and building the city and where governance is driven by the state but shared with civil society. Cities that have content residents display certain characteristics, such as those outlined below.

- **Accessibility:** Residents can easily and affordably access different parts of the city and different services.
- **Mix of land uses and incomes:** This mix contributes to increased access, diversity and safety (because of the regular presence of activity at all hours), facilitates social mobility and changes the fabric of city life for the better.
- **Quality public spaces:** Public spaces are a necessity, not a luxury. They consist of all spaces used by the public (from large elaborate squares, to roads and pavements, public transport interchanges, parks, libraries and even government buildings) and should be safe, clean and accessible.
- **Innovative urban design:** Successful urban design can contribute to a safe, accessible and vibrant mixed environment (e.g. Monwabisi Park¹⁰ in Khayelitsha, Cape Town) and improve communities where informal living and trade are a reality.
- **Safety:** More active spaces and involved urban residents lead to better security, as does designing cities in order to optimise the safety of all. This covers road safety, emergency management, safety standards and building regulations, and educating residents and government officials.
- **Integration:** Integrating the disparate parts of the city (particularly black townships) and land uses increases efficiency, quality and productivity, and recognises the interconnectedness of formal and informal trade.

Principles of spatial transformation

Cities in South Africa have different histories, configurations and challenges. Therefore, the vision of a spatially transformed city needs to allow for these variations. This means not being prescriptive about specific interventions in these areas, but rather emphasising a set of principles that inform how decisions are made that are in line with spatial transformation goals and objectives.

At a fundamental level, Williams (2000) proposed that meaningful transformation requires:

1. a change in power imbalances;
2. the restructuring of space to achieve increased efficiency, spatial justice and equity;

8 <http://betterblock.org/>

9 <http://parkingday.org/>

10 <http://www.capetowngreenmap.co.za/blog/design-transforms-lives-oasis-safety-urban-desert>

3. institutional transformation;
4. developing organisational and managerial capacity; and
5. a focused vision and plan to achieve a transformative goal.

The way in which city futures are envisioned and planned needs rethinking, and the tools and capacities thereof need to be upgraded (SACN and EDD, 2013). This means:

- improving the understanding of the needs of residents and spaces;
- planning *with* residents rather than *for* residents;
- building knowledge and evidence-based capacity; and
- developing a clear vision and framework for how to respond to urban challenges.

The NDP (NPC, 2011) refers to certain principles that are critical for achieving spatial transformation (see Figure 2.4). These principles are meant to inform and guide interventions in the built environment, the economy and the development of spaces in South Africa. More specifically, the NDP calls for a spatial vision to be developed which:

- tackles the inherited apartheid spatial legacy of exclusion, distorted growth patterns and inefficiencies;
- unlocks developmental potential through targeted investment in economic and social infrastructure;
- guides and informs investments in infrastructure that supports long-term inclusive growth;
- manages economic and demographic shifts to achieve productivity through agglomeration; and
- facilitates coordination between government and various actors which shapes and informs spatial development.

The Integrated Urban Development Framework (IUDF) sketches an urban vision and policy for South Africa and presents practical interventions (referred to as levers) for implementing the NDP principles (COGTA, 2016). These levers are: a focus on the built environment through public transport, human settlements and spatial planning and land-use management, improving the way that cities are governed, improving productivity and sustainability and ensuring that cities are inclusive and integrated.

Figure 2.4: From principles to outcomes



Local government is best placed to achieve spatial transformation

The developmental mandate of local government is enshrined in the Constitution and the White Paper on Local Government: “local government is committed to working with citizens and groups within the communities to find sustainable ways to meet their social, economic and material needs and to improve the quality of their lives” (Powell, 2012: 15). Local government is expected to be the redistributive, transformative sphere of government closest to the people (Powell, 2012).

Local government’s challenge is to fulfil its development mandate, while being expected to do more with less financial and personnel resources, and, at the same time, to build and maintain the capacity and skills required for transformative delivery (Powell, 2012). The idea that local government is best placed to serve residents and drive transformation is not disputed. Yet local government’s ability to implement national policy objectives is of concern because of certain challenges. They include the need for institutional reform, corruption, political interference, inefficient financial management and a lack of capacity development (Powell, 2012). Yet, according to the Community Law Centre, “fears around a lack of capacity, fragmentation of services and standards are largely overstated as the devolution of powers and functions to local government do not minimise the already existing, substantial oversight powers of national and provincial government” (CLC, 2007: 5). Local government needs to be given the opportunity to develop the necessary capacity and capability to deliver effectively on these functions (ibid).

Local government should be the navigator and facilitator of transformative development. It is within its mandate, scope and control to develop more integrated delivery driven by adequate planning. This means devising the vision, strategic plans and implementation frameworks that will result in the desirable city discussed earlier. Local government also needs to regulate and incentivise better cooperation between urban stakeholders and actors, and establish more meaningful partnerships with private sector agencies, communities and civil society organisations. Navigating and steering the local agenda is possible (particularly with a strengthened planning function) but requires that local government is given the responsibility for additional key functions that shape the urban environment (e.g. human settlements and public transport).

BUILT ENVIRONMENT PERFORMANCE OF SOUTH AFRICA’S CITIES

The built environment consists of three main elements: land, settlements (i.e. physical buildings, infrastructure and services) and mobility systems (transport). Understanding and transforming these three elements can contribute towards changing how cities function spatially, thereby encouraging greater economic efficiency, social inclusion and environmental sustainability.

Land

Land underpins all human activity and has very deep emotional, cultural and political significance, which is why addressing the land issue in South Africa has always been fraught with tension. The land restitution programme has recently been reopened to address the current frustration and disillusionment with the

process by land claimants who have yet to receive compensation or redress for their claims.¹¹ Frustration at the slow pace of transformation has resulted in land invasions and demands to access land.

Urban land reform is crucial, as cities cannot continue to locate poor people on the periphery or allow developments that are contrary to the state's transformation agenda. The control of valuable, viable urban land cannot (and should not) be left only to the market to determine. However, land is a commodity and asset, and the vested interests and rights of those who currently own land are already entrenched. Therefore, it is important to determine the kinds of interventions that would be appropriate for ultimately transforming space in South African cities.

Urban land constitutes the bulk of urban land claims (Atuahene, 2014), but urban land reform has not been fully resolved because of the difficulty in addressing the economic, political and social vested interests in urban land. Examples of such interests include, for instance, contestation over land claims where the land value has significantly increased, and tension between where people are located and where areas of opportunity are found. Another obstacle is the development model, which has often led to gentrification that excludes lower-income or vulnerable groupings. Private and public sector developments should both seek to achieve the desired inclusive spatial form. State-owned land needs to be used more effectively and efficiently, which will require better coordination of the different spheres of government and their agencies to ensure land is made available for inclusive development.

The prevailing perspective is that urban land is primarily an economic asset and a resource. However, given the socioeconomic disparities in the country, a broader definition of land is needed that encompasses the concept of land as a social good (Brown-Luthango, 2015), i.e. that land should benefit not just the individual but also the broader community. A case in point is a recent claim by the descendants of Chief Tshwane¹² (after whom the City of Tshwane was named) that covers portions of the central business district, the area where the Union Buildings is located and vast tracts of valuable land around the city – land estimated to be worth billions. Fair compensation for legitimate land claims will have to be balanced with the city's strategic growth path and with existing uses and stakeholders. For example, land claims may be resolved by agreeing to an arrangement between current landowners and land claimants to a share of the revenue from that land. Alternatively, the land could be developed in a way that contributes towards the broader social good, for example, using it for public and recreational space.

Critical issues to consider

The *politics of land* need to be understood and navigated, but “symbolically, land remains an unresolved political question because of property privilege heavily skewed in favour of continued accumulation by whites” (Mkhize, 2015: 1). Determining who owns what land should be an important priority. The black middle class may have grown, but the reality is that land ownership remains out of reach for the majority of black South Africans.

11 <http://www.bdlive.co.za/business/agriculture/2014/07/01/government-to-reopen-land-claims-process>

12 <http://www.sabc.co.za/news/a/600dbe80478ea7798823ee42d945d4b0/Government-to-finalise-land-claims-policy-in-2015-20150307>



Competing land interests need to be managed because land is a finite resource required for different and competing uses, from economic activity and meeting justice and restitution goals, to ensuring environmental and economic sustainability. Various actors demand well-located land, including the private sector, individual urban residents and even city governments. Given the existing historical patterns of exclusion, a critical priority for government should be meeting the land needs of those who are currently excluded from accessing well-located land with economic potential (McGaffin and Kihato, 2013).

Spatial transformation and development must be driven by local government, through redirecting public and private sector investments that clash with long-term plans or the broader transformation logic. City administrations need to recognise that the urban space changes over time, driven by economic and development imperatives, the needs of urban residents and environmental considerations. Understanding the potential and future of cities will require addressing existing historical imbalances, but also planning for the future with different technologies, movement patterns and ways of living. Land use and access must respond to cities that change and adapt very quickly.

SPLUMA

The Spatial Planning and Land Use Management Act (SPLUMA) (No. 16 of 2013) provides for a single land development process for the country and has been in operation since July 2015. After a 10-year process, SPLUMA was finalised following a Constitutional Court ruling in *City of Johannesburg Metropolitan Municipality vs. Gauteng Development Tribunal and others*¹³ (Berrisford, 2015).

SPLUMA overturns 100 years of South African town planning practice, as it recognises that local government is responsible for implementing and drafting planning by-laws, local SDFs and land-use management systems (LUMS). Before SPLUMA, planning and land development were fragmented, with multiple land development processes: the Development Facilitation Act (No. 67 of 1995), the Less Formal Township Establishment Act (No. 113 of 1991) and various provincial planning ordinances. Areas designated for black, coloured and Indian race groups had different planning legislation. In addition, land-use management fell under municipal jurisdictions established prior to the Municipal Structures Act (No. 117 of 1998). This meant that a single municipality would have multiple land-use management schemes with different definitions for land uses, which complicated the finalisation of land development applications. These schemes did not consider informal settlements or informal enterprises, and were defined within a strict modernist paradigm. In addition, the Municipal Systems Act (No. 32 of 2000) introduced the SDF as one component of the broader municipal integrated development plan (IDP). However, the relationship between the IDP, SDF, the land-use management schemes and the land development process was unclear and complex. Municipalities interpreted the various policy mechanisms differently, while provinces controlled certain aspects of the development planning process.

13 *City of Johannesburg Metropolitan Municipality v Gauteng Development Tribunal and Others* (CCT89/09) [2010] ZACC 11; 2010 (6) SA 182 (CC) ; 2010 (9) BCLR 859 (CC) (18 June 2010).

The promulgation of SPLUMA presents some important opportunities for cities to plan more effectively for transformative outcomes.

- **SPLUMA as a transformative tool:** SPLUMA provides certainty to new and existing property investors through clear and effective planning processes. Planning tools include informal uses within the town planning schemes and provide a clear vision with appropriate detail as to how the city intends to develop its built environment. The SDF will be the key tool for defining the intended form of the city (SACN, 2015a), as it can identify areas of priority for development and the type of land use, as well as propose residential densities. SPLUMA brings legislative legitimacy to SDFs, which will need to be drafted carefully because decisions made based on SDFs will have to withstand legal challenges.
- **Effective LUMS:** In addition to the SDFs, the LUMS and associated tools will be critical for achieving spatial transformation, and LUMS will need to be closely aligned to the SDFs. For the first time, cities have a single land-use management scheme that considers both informal and formal uses.
- **Implementation of SPLUMA:** Municipalities will have to employ more planning professionals, and there will be a period of adjustment while municipalities, provinces, developers, homeowners and residents get used to the implications of the new Act. The Act's success will depend on the extent to which residents comply and whether the development management mechanisms for addressing undesirable development will be sufficient. The implementation of SPLUMA could also be derailed by provincial and national sector departments that refuse to recognise the primacy of local government in making land development decisions.

Human settlements

The provision of housing in South Africa is considered one of the most significant and important projects in “redressing our inheritance, deconstructing the socio-spatial economic incoherence, and reframing for more socially just outcomes” (Vawda, 2014: xiii). The White Paper on Housing (DoH, 1994) sets out the framework for housing, and “the establishment of viable, socially and economically integrated communities, situated in areas allowing convenient access to economic opportunities as well as health, educational and social amenities” (DoH, 1994: 19).

Various Constitutional Court cases have tested the housing policy and affected in particular the role of local government. The most recent and far-reaching of these was the 2011 Blue Moonlight judgement,¹⁴ where the Court ruled that the state (and local government, in particular) was responsible for finding alternative accommodation for people evicted from not only state property but also private property. This case will have critical implications for broader city and human settlement planning, as well as for financial planning at the local level (Joseph and Karuri-Sebina, 2014).

¹⁴ City of Johannesburg Metropolitan Municipality v Blue Moonlight Properties 39 (Pty) Ltd and Another (CC) [2011] ZACC 33; 2012 (2) BCLR 150 (CC); 2012 (2) SA 104 (CC) (1 December 2011)



PRE-1994

building POLICY



1994-2003

building HOUSES



STRATEGY

Framing response to the housing crisis and spatial fragmentation

Establish housing rights.
Determining policy vehicle.

POLICY

1992-1994 The National Housing Forum: aim was to develop consensus among stakeholders.

1994 National Housing Summit and Botshabelo Accord: stakeholders agreed to proceed with two approaches:
(1) state would facilitate housing delivery processes,
(2) private sector would identify land and construct housing by accessing subsidies on behalf of shelter seekers..



LEGISLATIVE CONTEXT

Racial segregation of towns and cities
Low standard and poor quality housing
High levels of informality
Poor services, infrastructure and amenities



IMPLEMENTATION



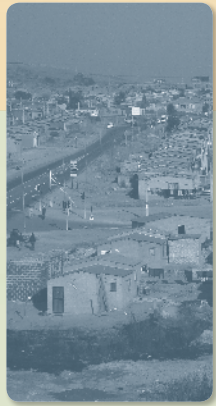
CITIES PERSPECTIVES/
REALITIES

Dysfunctional and fragmented local government
Local government lacking the political legitimacy and financial capacity to fulfill the local mandate (incl. the housing programme which was to be delivered by national and provincial government)



Reconstruction and Development Plan (RDP)

Build low-income subsidised housing.
Encourage banks to lend to low-income markets, thereby creating unified housing markets.



1994 RDP: Sets out policy to reconstruct the country and meet basic needs

1994 White Paper on Housing: shaped by the prevailing housing context, past housing practices and apartheid-planning settlement laws.

2000 National Housing Code, in accordance with Section 4 of Housing Act 107 of 1997: large metros rewrote their housing policies to align with BNG, which also gave municipalities greater responsibilities for housing and raised the bar for types of housing provided by the state

Constitution of South Africa, Act 108 of 1996: everyone has the right to have access to adequate housing, and the state must take reasonable legislative and other measures, within its available resources, to achieve the progressive realisation of this right.

Housing Act 107 of 1997: outlines housing development roles of national, provincial and local government.

PIE Act 19 of 1998: protects 'unlawful occupiers' from arbitrary eviction e.g. court shall not evict those 'unlawful occupiers' who shall be left homeless as a result of the evictions.

Rental Housing Act 50 of 1999: regulates the relationship between landlord and tenant and outlines obligations for government

Grootboom Case (2000)

In a groundbreaking judgement, the Constitutional Court ruled that the state was not only responsible for providing medium to long term responses to shelter but also for providing emergency shelter where the evictions resulted in no alternative shelter for evictees.

Individual Housing Subsidy Programme: capital grant to households earning <R3500 per month.

The People's Housing Process: encourages housing beneficiaries to save for and construct their houses.

Enhanced Discount Benefit Scheme, in terms of Section 3(5)b of the Housing Act of 1997: subsidy mechanism to transfer free-standing houses to their qualifying occupants.

Institutional vehicles

- National Urban Reconstruction and Housing Agency (NURCHA) (est. 1995)
- National Housing Finance Corporation (NHFC) (est. 1996)
- Rural Housing Loan Fund (RHLF) (est. 1996)
- Social Housing Regulatory Authority (est. 2008)
- Housing Development Agency (est. 2009)

Creating enabling environment.

Unintended consequences of subsidy: fragmented spatial environment and resulting impact on service delivery.

Connection between spatial and social integration not realised in cities.

Cities are seen as landlords, making sure people occupy (but don't sell) social/RDP housing.

National government delivers housing, but cities responsible for service delivery and infrastructure.

FROM HOUSING TO SUSTAINABLE HUMAN

2004–2014

building
HUMAN SETTLEMENTS



2014 →

building
URBAN COMMUNITIES

Breaking New Ground (BNG)

Develop sustainable human settlements.
Improve spatial integration and housing assets.
Upgrade and eradicate informal settlements and begin the process of accreditation.

2004 Comprehensive Plan for Sustainable Human Settlements (BNG)

2005 Social Contract for Rapid Housing Delivery: compact between government, private sector and civil society to accelerated delivery of housing and shelter.

2007 Inclusionary Housing Policy: private sector gain development rights and in return contribute 20–30% to building low-income housing.

2010 Outcome 8: informal settlement upgrading, accreditation, the land and property market become key focus areas.

Rental Housing Amendment Act 43 of 2007: amends the Rental Housing Act, 1999, makes further provision for rulings by Rental Housing Tribunals and expands the provisions pertaining to leases.

Social Housing Act 16 of 2008: defines the functions of national, provincial and local governments in respect of social housing, and establishes the Social Housing Regulatory Authority.

Housing Development Agency Act 23 of 2008: establishes the Housing Development Agency.

Housing Act of 2009 (Amended).

Blue Moonlight (2011)

The Constitutional Court ruled that not only was the state (and local government in particular) responsible for finding alternative accommodation for people evicted from state property but that the same treatment should be afforded to people evicted from private property.

Integrated Residential Development Programme (IRDP)

Enhanced People's Housing Process (EPHP)

Social Housing Programme

Upgrading Informal Settlements Programme (UISP)

Finance Linked Individual Subsidy Programme (FLISP)

Institutional Housing Subsidy Programme (IHSP)

Community Residential Units Programme (CRU)

Neighbourhood Development Partnership Grant (NDPG)

Its purpose is to fund, support and facilitate the planning and development of neighbourhood development programmes and projects that provide catalytic infrastructure to leverage third-party public and private sector investment for future and more sustainable development.

Social housing: rental response and urban development.

Increasing emphasis on the role of cities in responding to emergency housing or alternative housing typologies

Citizen participation

Infrastructure service delivery is a critical component of the human settlements sector

National Development Plan (NDP)

Take a long-term perspective.

Focus on spatial integration, sustainability, efficiency and balance, and integrated urban settlements.



2012 NDP: long-term strategic framework. Seeks to transform human settlements and entrenched spatial patterns that exacerbate social inequality and economic inefficiency.

Current context

Integrated Urban Development Framework (IUDF): plan for transforming our cities in an integrated way.

Accreditation: municipalities gradually take over national/provincial housing functions

Current Gap: The need for a Sustainable Human Settlements Policy or Green Paper

Devolving other Built Environment functions to the local level

Transport devolution (the National Land Transport Act of 2009): local government well placed to drive more effective and efficient public transport networks through increased integration.

Spatial Planning and Land Use Management Act (SPLUMA): municipalities have to drive planning at the local level and ensure that it aligns with this legislation, aimed at addressing the historical imbalances and at integrating sustainable development principles.

Urban Settlements Development Grant (USDG) seeks to support the development of sustainable human settlements and improved quality of life for households through accelerating the provision of serviced land with secure tenure for low-income households in the large urban areas by supplementing municipal resources.

Integrated City Development Grant (ICDG) the grant provides metropolitan municipalities with incentives to improve spatial development considerations in their planning and job creation.



Spatial transformation and governance.

Spatial governance.

Active citizenry and co-production (inclusion of vulnerable groups) .

Responsibility for sustainable settlements (full mandate through accreditation).

Enable sustainable livelihoods and access.



N SETTLEMENTS



SACN©2014



The 2011 State of South African Cities report highlighted some of the critiques and unintended consequences of South Africa's housing programme, which is largest of its kind in the world:

- Delivery has not kept pace with the growing demand for housing. In the context of growing urbanisation, household growth and (internal and cross-border) migration, cities are under increasing pressure to provide adequate services and opportunities to a growing population.
- The housing response formulated in 1994 was inadequate because the diverse and changing shelter needs of a growing urban population were poorly understood. The result has been a proliferation of alternative forms of shelter, such as informal settlements and backyard accommodation.
- The government cannot afford to provide subsidised housing because of rising production costs, building standards and environmental requirements, which make houses increasingly expensive.

Despite these critiques of the housing programme, neighbourhoods have benefitted from the “significant energy and investment [that] are taking place in state-subsidised housing developments” (Charlton et al., 2014: 90). The housing programme has made a massive investment in the landscape of South Africa and fundamentally changed the lower end of the property market, providing access where previously there had been none. The quality of the housing product has improved, while some areas (e.g. in Diepkloof, Soweto) have benefitted from additional transport and other investments, leading to increased property values.

Housing policy has shifted over the past two decades. The Integrated Residential Development Programme promotes the development of mixed-income areas with mixed housing typologies, similar to Cosmo City, Oliehouthbosch, N2 Gateway, Cornubia, etc. Increasingly, local government is placed at the centre of delivery, with a focus on devolving built environment functions (i.e. sustainable human settlements, public transport and spatial planning) to municipalities. This shift is reflected in the evolution of grant instruments, such as the Urban Settlements Development Grant, which seeks to support increasingly sustainable and integrated human settlement delivery by taking “a holistic approach to planning, but with an added emphasis (introduced in the built environment performance plan or BEPP) on spatial restructuring and the strategic location of infrastructure to maximise efficiencies, create economic growth, and enhance densification” (Tshangana, 2014: 19–20).

These changes have been remarkable, but more can be done. Exemplary contemporary projects, such as Cosmo City (Johannesburg) and Cornubia (eThekweni), may be recognised for their integrative principles, but are often integrated only within the actual settlement and not within the broader city fabric.

Critical issues to consider

How people navigate the city and their shelter needs are poorly understood. The mode of shelter delivery is outdated and does not respond to reality. Factors such as location, proximity to resources, safety and flexibility all influence the choices of households, especially younger and woman-headed households (SALGA, 2013). Beneficiaries should be included as co-producers of space in planning and design practices, from the very beginning of the process right through to the final product (Cross, 2014; Pieterse and van Donk, 2014). Moreover, high transaction costs and the inadequate supply of affordable housing affect people's ability to participate in the property market and to move around the city.

Access to suitably located land is problematic because of the cost of land, vested interests and the importance of land and land value for municipal revenue. Most low-income housing developments are poorly located, although additional upgrading and public transport investments result in certain areas becoming “better located” over a number of years. The problem is that housing provision has been driven by a socio-political logic and not an economic logic. Part of the solution could be a long-term planning approach, whereby lower-income and mixed neighbourhoods are strategically developed in areas with potential for future growth.

The devolution of the human settlement function is likely to improve horizontal and vertical alignment.

Only at local level can the required alignment, among government departments, within the municipality and with private sector players, successfully happen. However, the ability to encourage and facilitate diverse built environment interventions does not currently exist at the municipal level. Such a directed approach would present an important opportunity for better coordinating or disciplining investment (from both public and private sector) towards the aims of spatial transformation (SACN, 2013).

Human and financial resources are needed for an effective, integrated urban response. These include improved skills and capacity, clear authority and political will at local level, and sufficient funding. Transforming South Africa cities will be a complex task, and so identifying and recruiting suitably qualified people is crucial. Metros also need to streamline their institutions and root out inefficiencies that have hampered delivery. In addition, “cities are built as they are funded” (Tshangana, 2014: 14), but the current funding framework does not support and enable the delivery of sustainable human settlements. Any discussion about current funding instruments for human settlements must include how the broader built environment is funded.

Public transport

The past two decades has seen an unprecedented level of investment in public transport, for example, the bus rapid transit (BRT) systems, Gautrain rapid rail, and the imminent rolling stock and systems upgrade by Passenger Rail Agency of South Africa (PRASA). Cities are beginning to realise the importance of investing in NMT, but results are limited. At the same time, despite South Africa’s national strategy,¹⁵ major investments have been made in expanding the road and freeway network. This investment, which largely prioritises the automobile, still far outweighs the investment taking place in public transport, across all spheres of government.¹⁶ Given that the majority of South Africans use public transport, the persistence of a car-centric, road-based design presents a challenge. Roads are vital public spaces,¹⁷ and their design should accommodate all modes but prioritise pedestrian movement.

15 The Moving South Africa Strategy Document of 1999 clearly states that South Africa cannot build its way out of congestion, and that no road capacity expansion would occur moving forward.

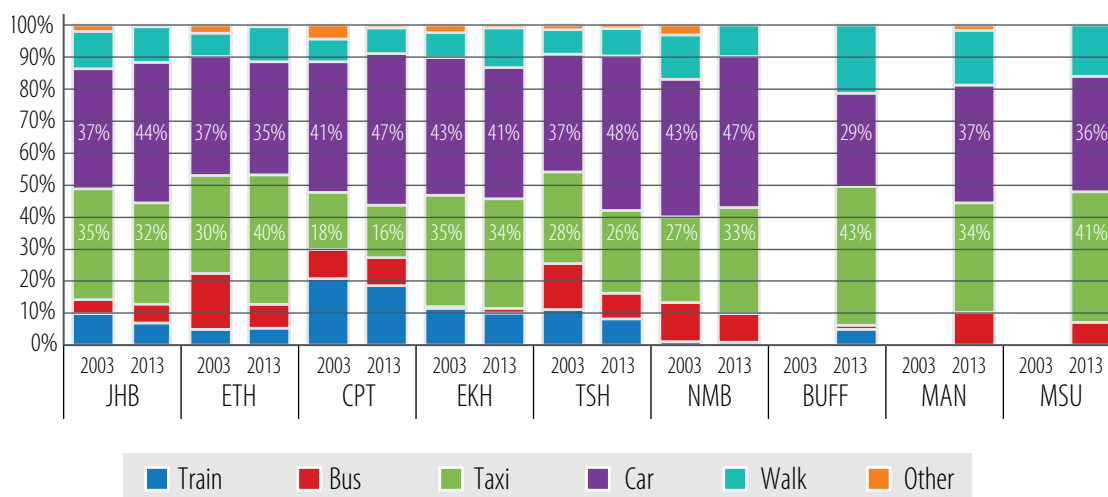
16 This is inclusive of the contributions which property developers make to building transport infrastructure.

17 Project for Public Spaces <http://www.pps.org/reference/streets-as-places-how-transportation-can-create-a-sense-of-community/>



The most recent National Household Travel Survey results reveal the harsh reality, that the dominant modes in cities (private cars and minibus taxis) are increasing most significantly. On the other hand, the public transport modes which have received major levels of investment over the past five years (buses and rail) are declining. Figure 2.5 illustrates that cities need to be aware of the alarming increase in private car usage. However, this trend is not a reason to stunt investment in public transport, as most cities globally have struggled to stop the growth of private vehicle use (Bertaud, 2004).

Figure 2.5: Main mode of travel to work (2003–2013)



Source: Stats SA

Note: Figures are based on the respective 2003 and 2013 NHTS. Data for Buffalo City, Mangaung and Msunduzi was unavailable for 2003. Other includes likes of scooter, bicycle, animal-drawn transport.

Unlike other public transport modes, the privately owned minibus taxi industry receives no subsidies and yet is used most by poorer urban residents. This is because the minibus taxi represents the most responsive transport option in dispersed spatial landscapes. To date, municipalities have had little influence over the minibus taxi industry (which receives its operating licences directly provincial government) or rail services (which is managed by national government). There is some indication that regional bus regulating and contracting will reside increasingly at the city level with the City of Cape Town already the first to explore taking on this function.

Cities' major contribution to improving public transport has been through integrated rapid public transport networks or BRT investments. BRT systems are proving to be more expensive than expected and are not attracting enough passengers to cover even half of their operating costs (SACN, 2015b). However, cities continue to invest in the expansion of BRT systems, largely in an isolated manner, despite initial integrative intentions. This is symptomatic of the continued fragmentation of public transport functions across all three spheres of government, and the ineffective devolution of the transport function to the cities.

Although many political, institutional and financial issues plague the sector, without embarking on BRT investment, the likelihood of cities becoming the primary planning authorities in South Africa would have

been slim. Despite its challenges, implementing BRT has given cities access to important transport experience, albeit only for a single mode. The cities' performance to date needs to be contextualised and seen in light of transitioning towards municipally operated public transport networks. A single mode cannot be expected to be the saviour of South African transport problems or to outperform other modes. The experience of the past years offers a valuable opportunity for learning and reflection. Tough decisions will need to be taken in the face of continuously escalating costs, fragmentation, increased travelling times and ongoing poor access and mobility. Put simply, the economy cannot sustain the current approach to transport investment. The current investment logic needs to be re-evaluated and the system reformed towards a city-based public transport focus. To develop integrated and effective transport networks will require both increased capacity and political will.

Critical issues to consider

Spatial transformation will be critical for more effective mobility because the financial and implementation challenges will persist unless significant strides are made to restructure the spatial form of South African cities. In addition to mass public transport, densification and compaction are fundamental to creating more sustainable cities. Therefore, continuing business-as-usual, by investing in BRT systems and passenger rail upgrades while spatial patterns continue to sprawl, will place huge financial burdens on the state in the face of many other urban investment priorities.

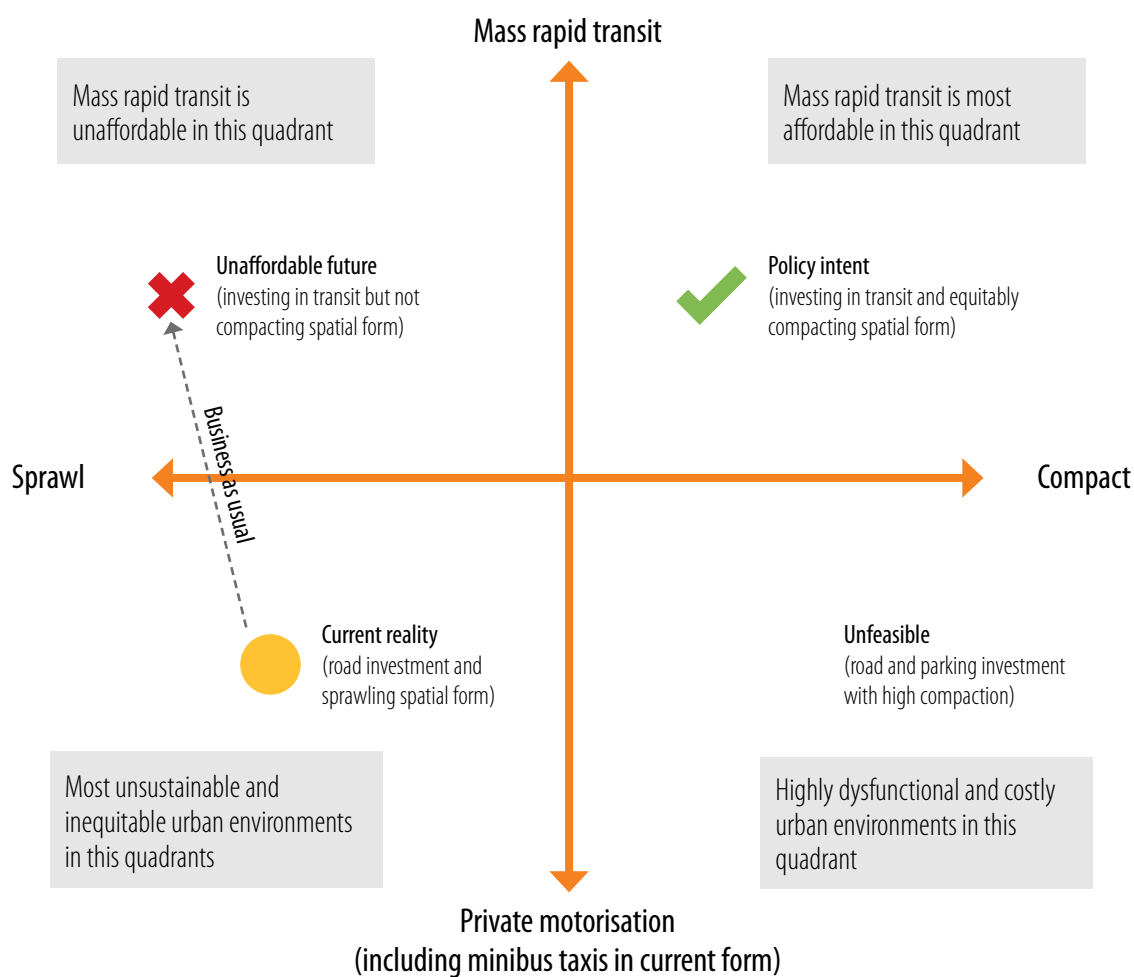
Transformation requires both immediate and long-term transport interventions. Even if South African cities are to begin to transform the built environment successfully, the minibus taxi industry will remain a highly relevant mode of transport for the foreseeable future. Legitimising the industry, as a critical component of the broader public transport system, in a manner that improves safety and reliability should thus be part of transport policy and strategy moving forward. Furthermore, it is clear that provincial and national government transport departments and entities will have a major role to play in achieving integrated transport offerings across the metros over the medium to long term. People cannot be expected to wait for devolution to be completed before integrated services are provided.

National and provincial transport entities need to respect and support municipal efforts to plan and manage integrated systems in the immediate term, by working together to give weight to municipal ideas, plans and systems. If capacity constraints are deemed to be the issue in this regard, as is often reported (van Reyneveld, 2008; SACN, 2011), then finding a way to support the capacitation of municipalities is required, not to supersede the municipal authority.

A nuanced approach to public transport must be taken because a fine balancing act is needed to drive compaction, invest in mass transit and legitimise and improve the minibus taxi industry in order to move towards an integrated transport system. The reality is that no city in the world has managed to rid itself completely of cars (Bertaud, 2004). However, those cities that have been able to develop dense and compact urban fabrics at scale, while simultaneously investing in mass transit systems, are more often than not considered the most sustainable, efficient and liveable.



Figure 2.6: Alternate transport-urban form growth trajectories

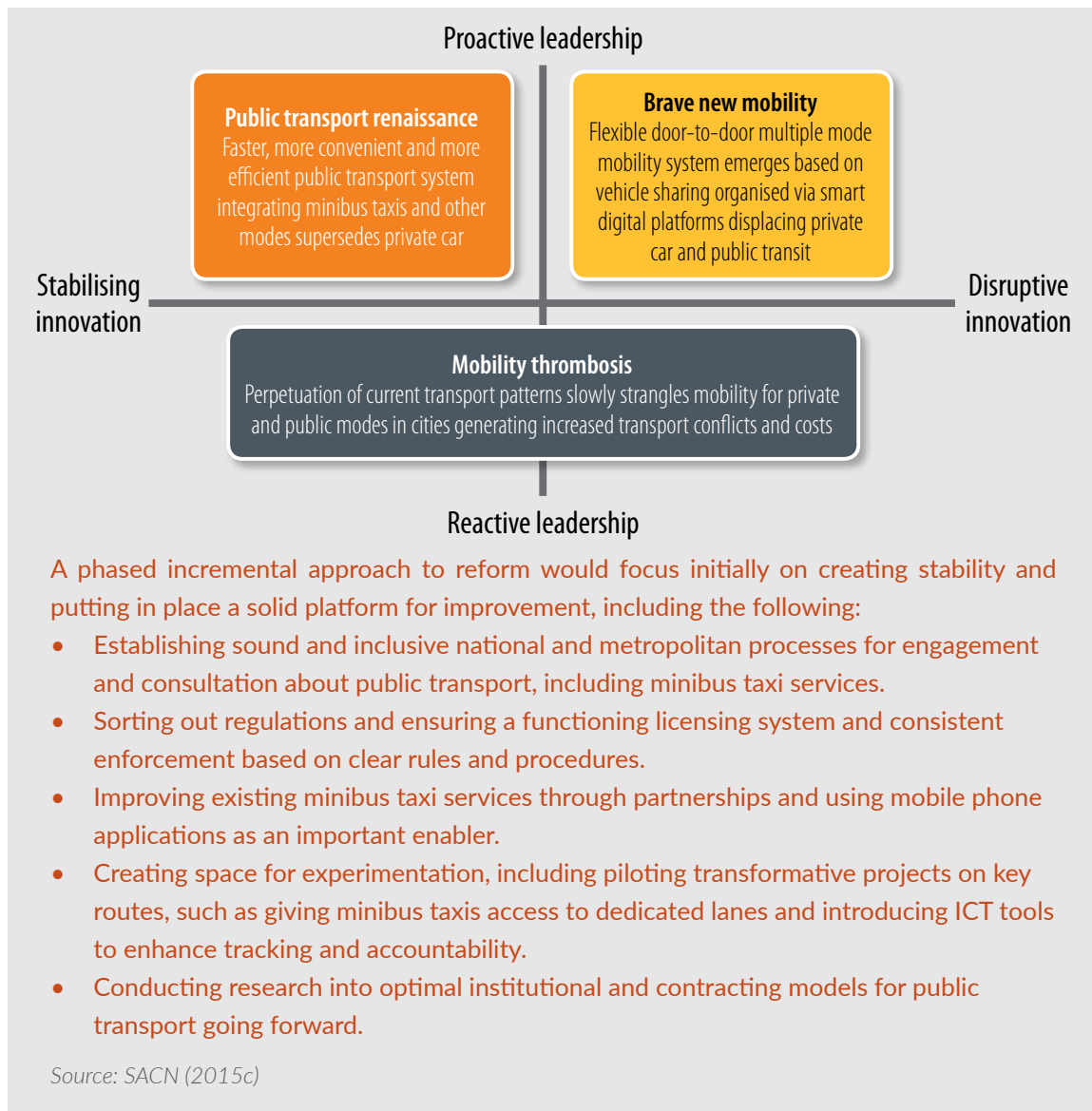


Source: SACN (2014)

MOVE THE CITY 2035 SCENARIOS: Envisioning future of the minibus taxi industry

Three scenarios describing possible mobility futures for urban South Africa and its relevance for the minibus taxi industry have been developed:

- **Mobility Thrombosis:** The business-as-usual scenario, where current trends of increasing private car usage slowly strangle urban mobility. Commuting using the road network gets slower, more frustrating, more conflictual and more expensive.
- **Public Transport Renaissance:** Bold steps by city governments result in a faster, more convenient and more complete public transport system that integrates minibus taxis, BRT, bus, rail and NMT. Public transport becomes the preferred commuting choice for the urban population and over time supersedes the private car.
- **Brave New Mobility Scenario:** The new application (apps)-based mobility technologies have an enduring disruptive impact on existing mobility patterns. Minibus taxis use mobile phone-based ride-sharing apps to fill their vehicles with ride-sharing passengers, and gradually become the dominant mode of public transport.



TRANSFORMING THE BUILT ENVIRONMENT OF CITIES

The experience of urbanisation in South Africa since 1994 shows that truly transforming cities, in the sense of providing disadvantaged black families with full rights to the city and its opportunities, requires more than simply delivering shelter. Urban spatial policy should be “about opening and expanding access to the benefits of living in towns and cities”, and access should be “the key objective of spatial transformation as it most directly links spatial policy to key national objectives of eliminating poverty and reducing inequality” (Harrison and Todes, 2014: 3). The state-subsidised housing programme has to be delinked from urban access to land because the housing programme alone cannot tackle the extent of the housing challenge (Charlton, 2008). Furthermore, the post-apartheid city is characterised by informality and complexity, which cannot be dealt with through a spatial planning and land-use management system based on notions of an orderly city (ibid). Therefore, the administrative and institutional arrangements governing urban areas need to be transformed in order to be able to deal with the challenges in cities.

SPATIAL TRANSFORMATION: Tracking transformation indicators

City officials go through continuous planning cycles with the aim of creating favourable conditions for growth, while also striving to transform cities into integrated, efficient and liveable spaces. To enable city managers and officials to see the effects of city management and planning, spatial indicators are needed to track the changes that take place in cities. It is important to look at spatial changes because geographical (spatial) patterns of social disadvantage (or advantage) are not random. They are the result of dynamic social processes, economic change, migration, the availability and cost of living space, community preferences and policies that may distribute particular groups to certain areas or exclude them from others (Smith, 2001; Kleinman, 1999; Smith et al., 2001).

To understand these patterns, and to measure changes, requires periodically repeated data collection, such as national censuses and spatial units of measurement that remain fairly constant and allow for the tracking of changing attributes. When the spatial units used (such as sub-places or wards) change, comparison between different periods is difficult because the spatial information represented is different. The current spatial units (wards, sub-places, main places, etc.) are not always suitable for tracking change spatially, and some of them change when the Demarcation Board makes changes to municipal or ward boundaries. Units may also have largely differing spatial extents, which make reading this information problematic. Generally, no spatially uniform (size) type of zone is used.

Tracking transformation is not just about the unit of information, but also about what is tracked and how it is used. To track any change, a good baseline is needed. Single indicators (e.g. population density) on their own do not convey all the reality. For example; cities are trying to densify their residential spaces in order to make the provision of public transport more cost effective and to bring people closer to employment. However, high density as experienced in low income and poor areas reflects negatively on an area, and could represent the urbanisation of poverty. High density could also result in an overburdened infrastructure or a lack of resources to support services. Whatever measurement is used, the outcome must be kept in mind.

The advantage of an index (or combined indicator) is that it considers a number of variables in order to reflect an issue. For example, the Multiple Deprivation Index consists of: material deprivation, employment deprivation, education deprivation, and living environment. Such indices are better than, for example, simply considering income level because access to some basic needs are also considered. As no single item can reflect transformation (or the lack thereof), multiple indicators are needed to truly measure transformation.

To support the State of Cities analysis process, during 2015 the CSIR compiled a number of spatial indicators and indices for SACN, each illustrating a specific component of change or transformation (see Almanac of this report).

Key issues for understanding spatial transformation

South African cities have to balance an unapologetic pro-poor stance with achieving the necessary (and inclusive) economic growth that enables cities to develop and thrive. Providing shelter, services and other interventions in the absence of a broader understanding of access, resources, voice and power, etc. will not achieve transformation. Spatial transformation is complex, and certain issues need to be understood. These issues are outlined below.

Cities are dynamic and different. There is no single image of what South African cities should look like. Cities have different building typologies, civic spaces and cultural displays, but need to ensure that development is productive, inclusive, sustainable and well governed, with an emphasis on these outcomes occurring together, rather than (for example) outcomes that are “sustainable” and exclusive, or “productive” and exploitative. Cities need to offer a range of typologies that respond to the different stages in the lifecycle of urban households (e.g. more gap housing, social housing and affordable bonded housing).

Local sphere must drive integrated transport. Investment in public transport in cities has taken place largely through the conditional grant mechanism and was not necessarily born out of local planning demand. The National Land Transport Transition Act (No. 22 of 2000) established integrated transport plans to ensure effective integration of all transport modes in the municipal area, but municipalities continue to lack the requisite skills, are doing little to incorporate private bus and minibus taxi operators into the network, and are not involved in PRASA’s plans to upgrade rail systems and operations. Investments in the road network, such as the billions spent by the national roads agency (SANRAL) on expanding the highway capacity in Gauteng, as well as the plans for other provinces in the pipeline,¹⁸ contradicts the policy emphasis on public transport.

The role of planning should be revived. SPLUMA presents an opportunity for metros to steer investment in line with their spatial transformation vision. The renewed emphasis on integrated planning has the potential to reinvigorate the IDP as a central planning tool at local level. However, planning should not be seen as a single process, but rather as one that covers distinct areas, such as strategic planning, i.e. the municipal planning that informs the development of the IDP and coordinates the important actors (across government spheres and sectors, and the private sector); physical planning; and spatial planning, which considers how things are ordered in space and used within the broader strategic spatial context as reflected in SDFs and precinct plans. Furthermore, recognising the limits of planning, the emphasis needs to be on implementation and the alignment of investments by various urban actors to the city’s strategic plans.

¹⁸ <http://www.fin24.com/Economy/Gautengers-urged-to-change-mindset-on-e-tolls-20150618>



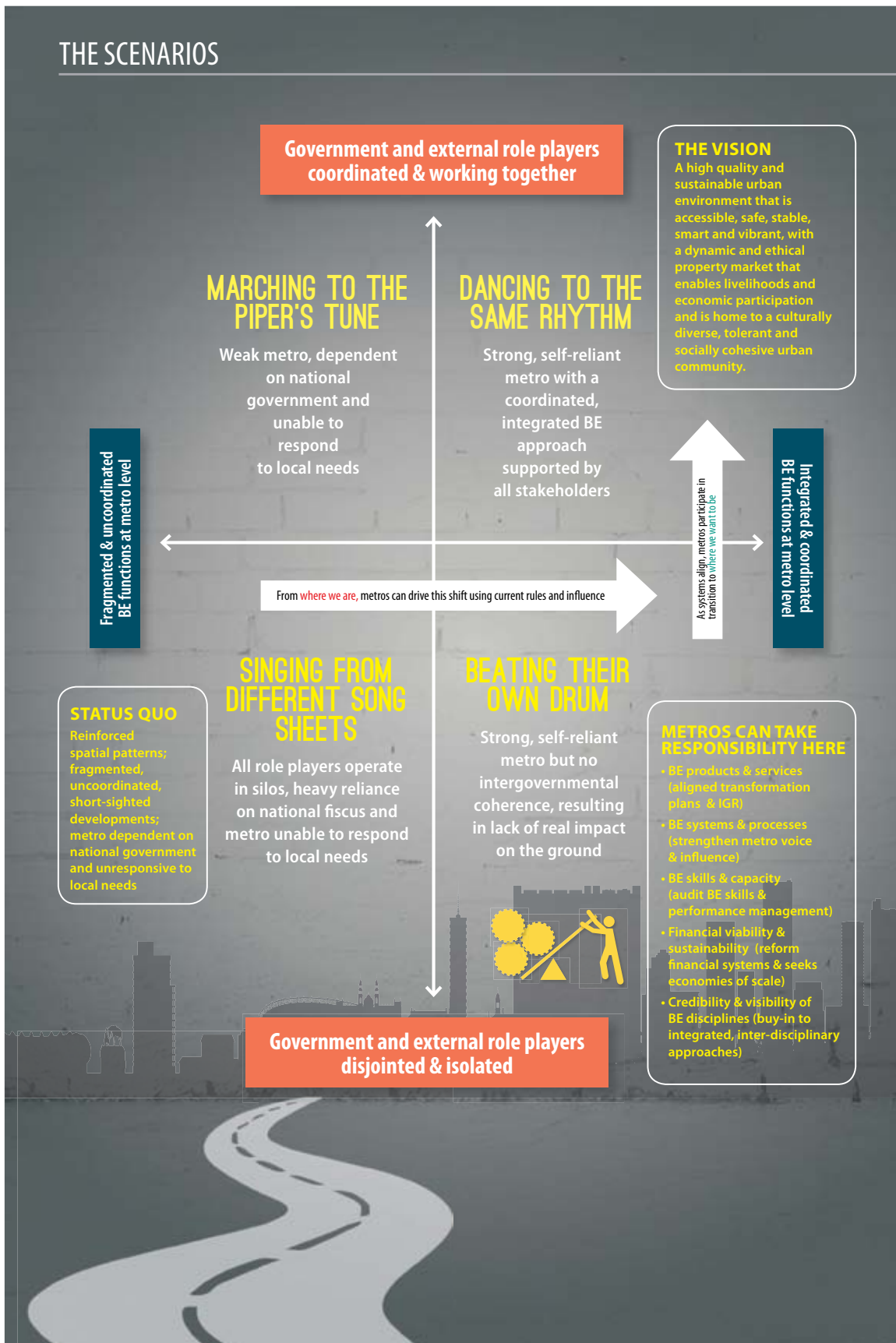
Spatial transformation needs responsive governance. Cities must take up their development role with the necessary fervour and focus. Getting service delivery basics right, improving operating systems and ensuring effective skills and capacity (which are all within the control of cities) are important in the short to medium term. However, the long-term spatial transformation requires dynamic, responsive, innovative interventions that address the location of poor black people on the periphery, improve mobility and access, and ensure that cities are inclusive, productive and sustainable.

Roles need to be clear and aligned. Complete devolution has not been achieved across all the built environment functions, as only certain components of the transport and human settlements functions having been devolved. However, SPLUMA gives the local sphere full responsibility for municipal planning. Local government needs to coordinate, integrate and steer all interventions by all actors in the urban space, including provincial and national government, private developers and residents. At the very least, local governments can integrate their internal processes and ensure that new development applications are aligned to the city's long-term spatial vision.

Spatial transformation must be monitored differently from the way spatial interventions have been monitored to date. For example, instead of measuring outputs (e.g. the number of houses, title deeds, land parcels or buses delivered), indicators need to be developed to measure the spatial outcomes and changes to the urban experience. Some progress has been made in this regard, through the introduction of built environment performance plans (BEPPs) and spatial transformation indicators being developed by Treasury, as well as the ongoing spatial analyses of CSIR/StepSA in partnership with the SACN. This is not an easy process, but, without more effective measurement, it will be easy to revert to measuring outputs rather than long-term outcomes.

Built Environment Integration Roadmap

THE SCENARIOS



WHAT IS REQUIRED TO TRANSFORM SOUTH AFRICA CITIES

The 2011 SoCR highlighted the importance of developing a spatial transformation agenda and made a clear call for devolving key built environment functions, developing skills and capacitating metros. Returning to the transformation framework developed by Williams (2000), what is important is to understand (i) what is required to transform space, (ii) the dynamics of power and authority, (iii) the institutional arrangements that need to underpin an effective spatial agenda, and (iv) the skills and capacity required in the public and private sectors.

Transformation of space

The long-term agenda is to fundamentally change how space is structured, owned, used and developed (and for whose benefit). The immediate challenges are to address sprawl, exclusion, fragmentation and inefficiencies in cities. Cities need to have control over the functions that inform spatial change, and so a common thread is the devolution of key built environment functions.

A core element of transformation is land, which means confronting the land value/location conundrum, whereby poorer people need to live in better-located (but higher value) areas in cities in order to be close to opportunities. At one extreme would be the nationalisation of all land (or the mass redistribution of land at discounted rates), whereas at the other extreme would be a large state funding mechanism to purchase well-located land (which can be funded from various value-capture mechanisms or land-based revenues). A longer-term action would be to protect land in areas of future urban growth for low- and mixed-income/mixed-use development. Government actions can consciously create land value increases or try to stabilise land values so that they remain more affordable. In other words, cities can make deliberate market interventions, not only planning and regulatory interventions (Urban LandMark, 2012).

Transit-oriented development (TOD) has the ability to “stitch together” (to borrow a term from the City of Johannesburg) the peripheral, largely poor dormitory suburbs with mixed-use and industrial nodes where economic activity and employment opportunities exist. To promote economic growth, future city plans should promote and prioritise economic and residential activities and investments along existing public transport routes that link dormitory suburbs with other parts of the city. Lower-income households could then be accommodated in well-located areas within walking distance (3–5 km) of established mixed-use economic nodes. Land-use management approaches should, in turn, facilitate the inclusion of both formal and informal activities in a manner that also supports existing small-scale economic initiatives in lower-income areas.

Transforming the built environment of our cities will require people literally to get onto the street. This means prioritising pedestrian walkways rather than vehicular traffic, constructing public squares and public parks that relate intimately with surrounding buildings (improved surveillance) and reinforcing the public transport network. How people move around and experience the city must be at the forefront of the minds of built environment practitioners and private investors.

Transformation of politics and power

At the start of the 21st century, Williams (2000) argued the “radical” change needed to disrupt the power imbalances that exist within South Africa’s urban spaces would not be an easy or smooth process. This was because of the numerous vested interests in preserving the status quo, i.e. not equalising the power relations between black and white. Economic conditions have further complicated the situation (ibid). “People-driven development” could assist the transformation of the “social relations of power which give rise to the patterns of uneven development in South African society” (Williams, 2000: 172).

Sixteen years later (in 2016), this argument remains valid, with corruption, inefficiency and political power-brokering all challenges to meaningful spatial transformation. The private sector (and in some instances private/public collusion) and even private individuals display a certain amount of power over decisions about the built environment, which can slow spatial and social integration. This manifests as NIMBYism (Not In My Back Yard) displayed in certain middle- and higher-income suburbs, or opposition to public transport interventions, such as the case of the Rosebank community in Johannesburg objecting to a BRT route through the area (RMD, 2011). However, if undertaken in a constructive manner and with the city-wide objectives in mind, cooperation between public, private and civic role-players can bring about a city that is more sustainable and integrated. At the root of this is greater transparency, shared values, for example, around inclusion, and ethics across all actors.

Transformation of institutions and intergovernmental relations

Spatial transformation and integration depend on effective intergovernmental relations that recognise the critical function played by local government. “The scope and pace of change in South Africa are also influenced/determined by the extent to which public institutions adjust to and comply with the current directives of transformative planning” (Williams, 2000: 170). Across government, a concerted effort is needed to move away from the traditional silo approach whereby the various sector departments have their own targets, directives and resources aimed at meeting their sector mandate. At the local level, the developmental mandate for spatial transformation cannot be met through a fragmented approach, but requires institutional arrangements that can respond to the nuance, integration and coordination required. Furthermore, as the IUDF recognises, intergovernmental relations need to be strengthened in order “to drive the agreed policy, fiscal and regulatory changes, and to steer the priorities of the urban agenda” (COGTA, 2016: 101).

Cities are built how they are financed. A fragmented fiscal framework for funding how cities are built will not produce a transformative outcome. City governments also find themselves in an extremely difficult position, between a rock and a hard place, having to manage the impossible tension between using resources (like land) for income versus for transformative projects or outcomes. While more funding should be given to cities to enable them to deal with the main manifestations of unequal development (SACN, 2015b), the fiscal instruments also need to be streamlined to respond to the integrated nature of development and spatial transformation. In addition, cities have to make better use of instruments, such as land value capture tools, and improve project management processes to derive maximum value out of interventions that have broader societal benefits.



Transformation of management and capacity

Over the past two decades, numerous changes have occurred across the three built environment functions, requiring a fundamental shift in the skills and capacity needed for transformation and dealing with complex land and land reform issues. In the human settlements sector, skills needed to deliver a housing product are different from those needed to deliver sustainable human settlements, which requires co-production and cross-sectoral cooperation. Similarly, in the transport sector, many of the existing skills are related to specific modes, operating in siloes and perpetuating historical commuter operating cultures, i.e. services that bring people into work in the morning and take them home in the evening. To achieve better public transport integration (including both multi-modal and land-use integration), particularly to integrate the minibus taxi industry, requires multi-disciplinary skillsets and innovative approaches that can engage with complexity. The ultimate goal must be to provide improved mobility and access for people. This requires building the capacity and skills of officials (as well as communities and other civil society actors), so that they have the knowledge and are empowered to influence and determine city form and function effectively (Williams, 2000). This is part of co-producing the city, which is essentially the outcome of the range of interactions and activities of all its residents, their experiences of living in the city and a vital part of the long-term transformation agenda.

CONCLUDING REMARKS

The built environment influences (but is also shaped by) the extent to which cities are inclusive, sustainable, productive and well governed. Bringing space to the epicentre of understanding the state of South African cities arguably requires looking at how spatial configurations have affected (or been changed by) other aspects, i.e. productivity, inclusivity, finances, sustainability, governance and the enabling environment. Relevant questions include:

- **The productive city.** How have the continuing inefficiencies and inequalities in South African cities affected the overall productivity of people, businesses and municipalities? Are there instances where specific spatial interventions have resulted in increased productivity?
- **The inclusive city.** What does inclusion mean in South African cities? Has this been achieved or not? If not, what are the key challenges that need to be addressed to ensure that cities are inclusive and foster social, racial and economic inclusion and access?
- **The sustainable city.** What are the implications of the current inefficient spatial configurations within cities for the spatial transformation agenda? Does the sustainability conversation in cities sufficiently cover issues, i.e. not limited to climate change, but also including efficient management of existing natural resources, food security and adequate planning to meet the future resource needs of cities?

- **The well-governed city.** Is the current governance of cities what is required to drive long-term spatial transformation? Should city governance (rather than government) be considered, as it includes the various actors in the urban space and their roles and responsibilities in driving the transformation agenda? If so, what is the governance model and approach that will achieve the desired urban spatial transformation outcomes in South African cities?
- **City finance and innovation.** What is the current state of municipal finances, and what impact has the spatial pressures faced by city government had on municipal finances? Are there instances where South African cities have developed innovative approaches to financing growth and development?
- **Enabling transformation.** What is necessary to drive the spatial transformation agenda? What are the disablers and enablers that will activate urban actors to achieve the desired outcomes? What are the enabling conditions that need to be created so that cities can become dynamic systems of innovation where all urban residents enjoy the benefits of agglomeration?

