SPATIAL TRANSFORMATION:

Are Intermediate Cities Different?

South African CitiesNetwork

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FOREWORD

As a network whose primary stakeholders are the largest cities, the South African Cities Network (SACN) typically focuses its activities on the "big" end of the urban spectrum (essentially, mainly the metropolitan municipalities). However, despite this bias-by-design, over the past 15 years the SACN has extended its work into the broader development context, contribution to the following (among others).

- The articulation of a national position on urban development – now fully entrenched in the form of the Integrated Urban Development Framework (IUDF).
- Detailed research to deepen our understanding of the country's settlement typology.
- Analyses about the rural-urban continuum and the interdependencies between our spaces.

Globally, attention has turned increasingly to intermediate (or secondary) cities as a category of special interest, as recently articulated within the New Urban Agenda (2016). South Africa has simultaneously questioned what this tier of non-metropolitan, large cities may mean from the perspective of differentiated governance or support. To respond to this question, what is needed is a better understanding of the exact differences or uniqueness of intermediate cities, which requires a particular "mindful approach".

This report is the fourth in our series of exploratory studies that seek to understand and give practical expression to what is meant by a "differentiated approach to governance". The first three volumes were: a data-driven study seeking to define "secondary cities" (2012); a deeper qualitative study into six intermediate cities to explore possible differences or uniqueness compared to metros (2014); and an even deeper study into apartheid's displaced settlements to examine the likely need for a more nuanced articulation of differentiation at even a sub-municipal level (2016).

This fourth volume coincides with the early stages of IUDF's national implementation, which includes a proposed new special programmatic focus on intermediate cities. This time, we explore the question of whether spatial transformation – a notion that is core to the vision of the IUDF – is somehow unique in the case of intermediate cities. The findings continue to contribute to an important knowledge base that supports more effective urban policy, governance, planning and management actions.

Sithole Mbanga
CEO, SA Cities Network

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ACRONYMS

BNG	Breaking New Ground
BRT	Bus Rapid Transit
COGTA	Department of Cooperative Governance and Traditional Affairs
DFA	Development Facilitation Act
DoH	Department of Housing
GVA	Gross Value Add
IDP	Integrated Development Plan
IUDF	Integrated Urban Development Framework
KSD	King Sabata Dalindyebo Local Municipality
NDP	National Development Plan
NPC	National Planning Commission
RDP	Reconstruction and Development Programme
SACN	South African Cities Network
SDF	Spatial Development Framework
SOCR	State of Cities Report
SPLUMA	Spatial Planning and Land Use Management Act

Executive Summary

South Africa's colonial and apartheid past has left the country's urban areas with a distinctive spatial legacy of racial segregation, low densities, sprawling suburbs and the location of most urban poor on the periphery of cities. Despite a range of legislation and instruments introduced since 1994 with the aim of spatial transformation, this spatial reality remains.

Most research has focused on spatial transformation in South Africa's large urban centres, rather than in the smaller (secondary or intermediate) cities, whose importance are recognised globally. The South African Cities Network (SACN) has spearheaded the development of a knowledge base associated with intermediate cities and to date has published three policy documents. This latest publication focuses on 11 intermediate city case studies: King Sabata Dalindyebo (KSD, Eastern Cape), Matjhabeng (Free State), Msunduzi (KwaZulu-Natal), Lephalale and Polokwane (Limpopo), Mbombela (Mpumalanga), Mahikeng and Rustenburg (North West), Sol Plaatje (Northern Cape), and Drakenstein and Stellenbosch (Western Cape).

The research had three broad aims:

1. To describe the nature of spatial changes in the case-study areas and to identify the mechanisms that tend to influence this change.
2. To evaluate the quality and ability of spatial development frameworks (SDFs) as a policy mechanism to create change, articulate a spatial understanding and inform the spatial transformation agenda in the 11 cities. (Some reference is also made to integrated development plans and, for comparative reasons, built environment performance plans in the metropolitan areas are assessed.)
3. To assess whether intermediate cities require a differentiated approach towards spatial transformation: Are intermediate cities different?

The study found the following:

The nature and scale of spatial change (Aim 1)

Intermediate cities are both densifying and sprawling

With the exception of KSD, all the cities cover a larger geographical area in 2014 than in 1990, which is an indication of urban sprawl. At the same time, densities increased in nine of the 11 cities, as the growth in population outstripped the growth in settlement land. Urban sprawl manifests both as high income and low income: from gated communities in Drakenstein and parts of Msunduzi, to informal settlements on traditional land in Rustenberg and KSD. In Lephalale and Matjhabeng, the urban

sprawl is driven by the decline of mining and changing labour and housing regimes in the mining industry (e.g. living-out allowances), as well as the development of low-income housing by government. Other factors contributing to urban sprawl include the power of capital for land development, traditional land, attempts to protect rural land and the urban edge, increased student numbers, an emphasis on infill development; and the desegregation of former white suburbs.

In intermediate cities, racial desegregation represents a form of spatial infilling

Lower land and property prices have resulted in higher levels of residential desegregation in intermediate cities than in metropolitan areas. This should be viewed as a form of spatial infilling.

Intermediate cities need to deal with the unintended consequences of mining

Mining places pressure on planning and land development in intermediate cities. Mining growth and decline have resulted in further sprawl and uncontrolled informal settlement development. This is as a result of changes in mine housing policies and the labour regime, including the move to shift work and outsourcing. There is also very little evidence that the mines' social and labour plans have contributed positively to development or spatial transformation in these cities.

Traditional authorities play a dominant role regarding land in intermediate cities

Intermediate cities are not the only places to contain land that falls under the jurisdiction of traditional authorities, but they are often unable to bridge the power relations associated with tribal land. Even if traditional land does ensure equitable land access, service levels on this land are very low. None of the municipalities has yet been able to resolve deadlocks with traditional authorities over land.

External role-players (e.g. capital) have power in intermediate cities

In many cases, the municipalities are unable to deal with the power of external role-players such as developers, interest groups and ratepayers. New land developments that are not aligned to the planning requirements in the SDF are often used as a financial incentive to the municipality but without considering the long-term implications, while more inclusive human-settlement developments may meet resistance from existing residents.

Intermediate cities remain economically vulnerable

Confirming previous work, intermediate cities are economically vulnerable and have lower growth rates than metropolitan areas. Their economies are also directly or indirectly linked to the primary sector or a single sector (e.g. mining). This reduced economic vulnerability is reflected in their household incomes and employment figures.

Intermediate cities underperform in respect of generating own municipal income

Municipal finances are under pressure in many of the intermediate cities, in part because of the low level of own income generated, in particular from property tax. Improving the portion of own income derived from property tax and using own revenue to fund capital investment might also strengthen their ability to stand firm against pressure on the SDF.

The quality and ability of SDFs as a policy mechanism to create change (Aim 2)

Spatial plans are not driving development

Although the quality of the plans is generally acceptable, there is a lack of implementation. Most SDFs emphasise increased densities and the prevention sprawl, but are less inclined to deal with safety concerns and with the coordination of transport nodes. Furthermore, the planning capacity of intermediate cities is not well developed, and the available range of planning tools is not used effectively. Plans generally lack reference to building on rural-urban linkages, promoting sustainability, providing either inclusionary housing or mixed-income developments, and aligning local planning with social and labour plans.

Do intermediate cities require a differentiated approach? (Aim 3)

Intermediate cities and metropolitan areas have certain similarities

They are both dealing with the same consequences of apartheid planning and the pressures of managing urbanisation, especially in some of the mining-dependent intermediate cities. And most intermediate cities are dealing with these pressures in largely similar ways to those used in metropolitan areas.

Intermediate cities have certain differences and require differentiated planning

The IUDF principles are generally relevant to intermediate cities, and so an alternative framework for spatial transformation is not necessary. However, there is room for differentiation. This means responding differently to urban sprawl (e.g. less focus on BRT systems), dealing with economic vulnerability, providing more rental housing (especially in the mining areas), strengthening local governance and financial management, resolving issues associated with traditional land, improving planning capacity, building on the advantages created by higher levels of racial segregation, planning for the unintended consequences of mining, and tailoring interventions to the needs of the individual cities.

PART 1
Introduction

South Africa's colonial and apartheid histories have left the country's urban areas with a distinctive spatial legacy (SACN, 2016b). This race-based planning ideology has resulted in racial segregation, low densities, sprawling suburbs and the location of most urban poor on the periphery of cities (Dewar, 1977). Apartheid planning represented high levels of social engineering, created hardship and marginalised lower-income households, as well as being a direct burden on city economies (Turok, 1994). Consequently, "South African urban areas entered the 1990s with a legacy of segregationist planning and racially imbalanced land occupancy relationships" (Donaldson and Marais, 2002: 1). "Cities continued to develop along socially divided lines, but class began to replace race as a significant socio-spatial divide" (Todes, 2006: 50).

This reality continues, despite the introduction of a range of legislation and instruments to transform the spatial legacy of apartheid (see pages 15–17). The State of the Cities Report 2016 highlights five key messages in its spatial transformation chapter (SACN, 2016b: 46):

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.

Most research has focused on spatial transformation in South Africa's large urban centres rather than in the smaller (secondary or intermediate) cities, and so many of the policies and programmes may have been designed to deal with the spatial concerns of larger urban areas.

The importance of intermediate cities is increasingly acknowledged globally (Gold IV, 2016; Habitat III, 2016; Roberts, 2014), with Habitat III cautioning that urban planners tend to neglect the role of intermediate cities (Chatterjee, 2016). Nationally, the Integrated Urban Development Framework (IUDF) contains a vision for South African urban areas, which "recognises that the country has different types of cities and towns, each with different roles and requirements" (COGTA, 2016).

Although largely focused on South Africa's large metropolitan areas, the South African Cities Network (SACN) has also spearheaded the development of a knowledge base associated with smaller and intermediate urban areas. Since 2012, the SACN has published three policy documents:

- Secondary Cities in South Africa: the start of a conversation (SACN, 2012)
- Outside the Core: towards understanding intermediate cities in South Africa (SACN, 2014)
- Hidden Urbanities: South Africa's displaced settlements 30 years after the abolition of influx control (SACN, 2016a)

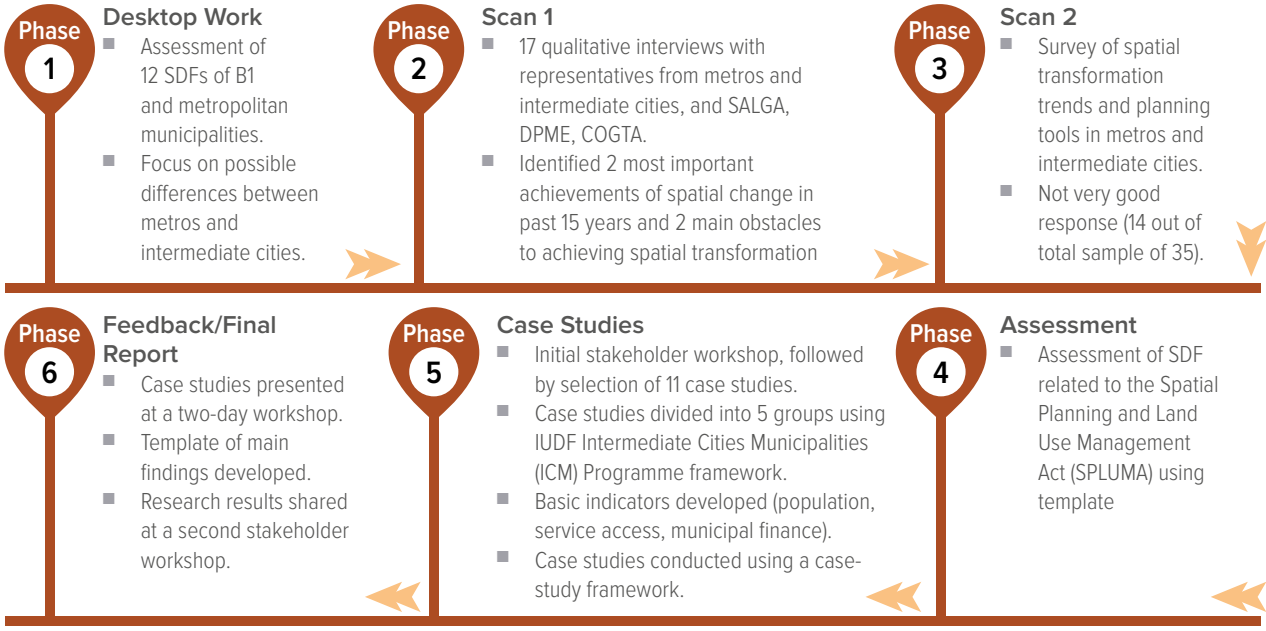
This research focuses on 11 intermediate city case studies (Table 1) and has three broad aims:

1. To describe the nature of spatial changes in the case-study areas and to identify the mechanisms that tend to influence this change.
2. To evaluate the quality and ability of spatial development frameworks (SDFs) as a policy mechanism to create change, articulate a spatial understanding and inform the spatial transformation agenda in the 11 cities. (Some reference is also made to integrated development plans and, for comparative reasons, building environment performance plans in the metropolitan areas are assessed).
3. To assess whether intermediate cities require a differentiated approach towards spatial transformation: Are intermediate cities different?

Table 1: List of selected case studies by province

Intermediate city	Province
1. Drakenstein	Western Cape
2. King Sabata Dalindyebo	Eastern Cape
3. Lephalale	Limpopo
4. Matjhabeng	Free State
5. Mahikeng	North West
6. Mbombela	Mpumalanga
7. Msunduzi	KwaZulu-Natal
8. Polokwane	Limpopo
9. Rustenburg	North West
10. Sol Plaatje	Northern Cape
11. Stellenbosch	Western Cape

Research design

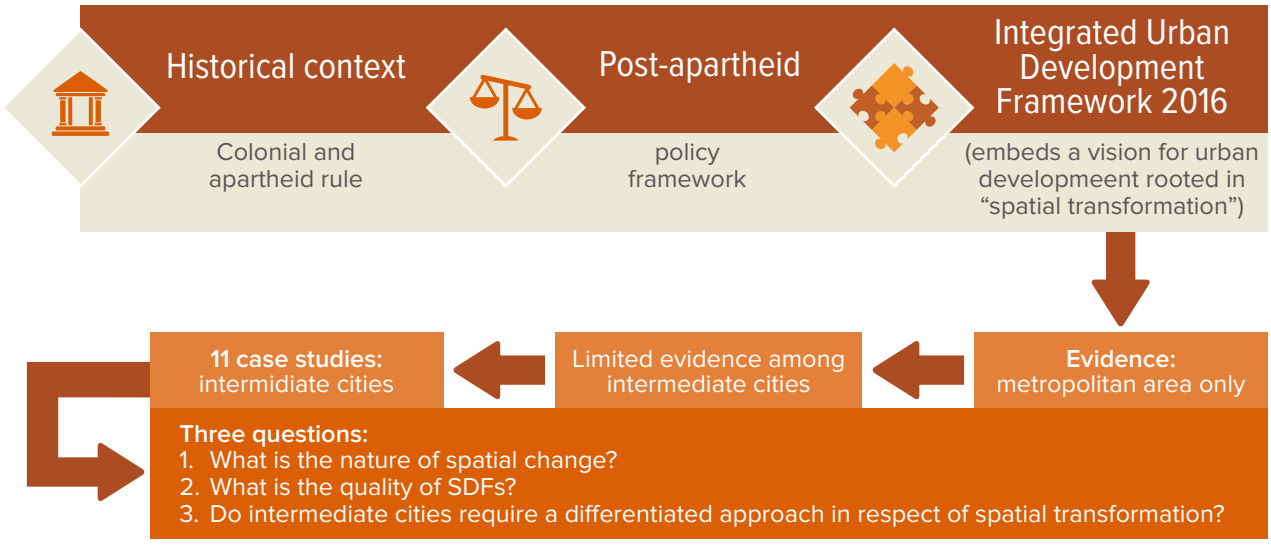


Selected case studies

Group	Name of city	Definition	Previous studies	Cities selected for this study
Large, semi-diversified ICMs	Emfuleni Mbombela Polokwane Rustenburg Msunduzi	Weaknesses in financial management / governance / service delivery; structural dependency; insufficiently productive; exclusion; poverty; poor connectivity; apartheid spatial legacy; uncontrolled development on traditional land; informal settlements; availability of rental accommodation; obsolete/poorly maintained infrastructure	Emfuleni Polokwane	Mbombela Polokwane Rustenburg Msunduzi
Mining	Lephalale Madibeng Matjhabeng City of Matlosana	Job losses in declining towns; haphazard growth; environmental hazards; informal settlements; apartheid spatial heritage; obsolete infrastructure; infrastructure backlogs; poor services/governance	City of Matlosana	Lephalale Matjhabeng
Industrial and mining	Emalahleni Govan Mbeki Mogale City Newcastle Steve Tshwete Umhlathuze	Job losses; path dependence; poor connectivity; environment; informal settlements; apartheid spatial heritage; obsolete infrastructure; poor services	Emalahleni Umhlathuze	
Service centre ICMs	Drakenstein George Dawid Kruiper Mahikeng Tlokwe Sol Plaatje Stellenbosch	Finance and service-delivery issues; informal settlements; apartheid spatial heritage; infrastructure backlogs; government-sector dependence	George	Drakenstein Mahikeng Sol Plaatje Stellenbosch
High population, high density but low gross value add (GVA)	Bushbuckridge KSD Greater Tzaneen	Low productivity; informal economy; informal settlement; traditional land issues		KSD

Source: COGTA (2017)

Conceptual overview



Key terms used in the report

Spatial transformation is used largely in connection with policy positions, i.e. to reflect policy intent, whereas *spatial change* is used when referring the reality on the ground. In practical terms, not all spatial change is what is desired in respect of spatial transformation. Below are the working definitions and their respective references of key terms used in the report. The definitions are largely from policy documents in South Africa, as well as from existing literature.

Term	Definition
Compact cities	Compaction in respect of densities (i.e. in terms of people per km^2) and multiple land uses or functional densities. In practice, the concept focuses on resource efficiency and the reduction of business costs and thresholds, and pollution. It is also argued that compact cities promote community building. (E.g. Katz, 1994.)
Densification	The process of increasing the people per m^2 within urban areas, the range of land uses within an urban area while at the same time improving resource efficiency. (As defined for this study.)
Infill developments	Developments within the existing urban boundaries. More specifically, the development of well-located land in the buffer strips developed under apartheid planning. (As defined for this study.)
Spatial exclusion and spatial inclusion	**Spatial inclusion** refers to urban spaces in which spatial efficiency is possible, while **spatial exclusion** refers to urban spaces in which spatial efficiency is lacking. The National Development Plan (NPC, 2012: 277) describes spatial efficiency: "Productive activity and jobs should be supported, and burdens on business minimised. Efficient commuting patterns and circulation of goods and services should be encouraged, with regulatory procedures that do not impose unnecessary costs on development."
Spatial integration	Goes beyond infill development to include the integration of racially divided suburbs (inherited from apartheid planning), integration by means of transport, ICT, economic opportunities and desegregation. (As defined for this study.)
Spatial targeting	"Targeting particular geographical areas for regeneration or growth", largely referring to projects that focus on the regeneration of CBDs (Rogerson, 2003: 56).
Spatial transformation	"An interrelated series of material driven practices, whereby the form, substance and overall dimensions of the urban space are purposefully changed to reflect the principles of a more equitable social order (Williams, 2000: 171).
Urban sprawl	Development that promotes low densities (fewer people per km^2) and mono-functional land uses – the opposite of compact cities and densification. (As defined for this study.)
Traditional land	Land managed by traditional authorities. Although the legal ownership of this land in most cases varies, it generally belongs to the state. (As defined for this study.)

The quest for spatial transformation: a policy overview

Spatial transformation is a key element of the evolving post-1994 planning and policy framework in South Africa aimed at addressing the spatial challenges faced by cities (including intermediate cities). Spatial restructuring of South African cities, coupled with notions of spatially "compacting" and "integrating" the city, has been an important direction in post-apartheid spatial policy (Todes, 2006). Despite policies and demonstrations of strong intent, the debate about the meaning and application of spatial transformation is ongoing (Pieterse, 2003; SACN, 2016b).

This evolving system has "meandered" from the initial White Paper on Reconstruction and Development in 1994 to the recent IUDF in 2016. The publication *South African Cities: A Manifesto for Change* (Dewar and Uytenbogaardt, 1991) has strongly influenced many of the spatial planning goals and the concepts related to spatial transformation and restructuring that have been part of the post-1994 policy framework. In it, the authors argued for a compact city form, the multifunctional use of space and facilities, increased densities and the integration of urban activities and land uses.

Figure 1 provides an overview of policy development since 1994. It should be noted that the process of articulating the policy intent of spatial transformation is ongoing, and operationalising these ideas in practice is very difficult. It was within this context that the 11 case studies were conducted.

Figure 1: An overview of the development of policies associated with spatial transformation in South Africa

PHASE 1: COLONIAL AND APARTHEID

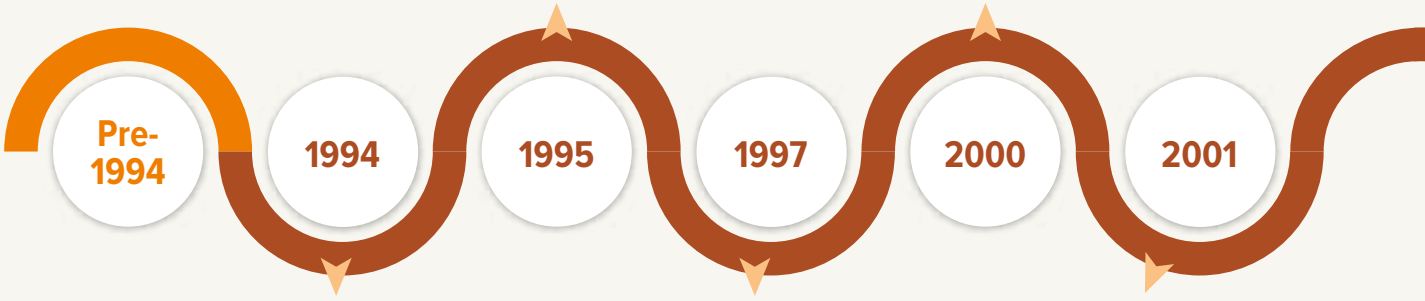
Policy intent = racial segregation

Characterised by racial segregation within cities; substandard housing; high levels of informality; poor services, infrastructure and amenities.

PHASE 2: building HOUSES

Policy intent = spatial transformation principles (integration of social, economic, institutional and physical aspects of land development), mixed land use and undo the apartheid city by linking parts of the city through high-density activity corridors, township upgrading and urban infill.

Characterised by building of low-income, subsidised housing (with the unintended consequence of fragmented spatial environment that affected service delivery); the creation of an enabling environment; cities viewed as landlords who make people occupy social/RDP housing; national government delivers housing, but cities are responsible for service delivery and infrastructure.



The Reconstruction and Development Programme (RDP): Introduces the principle that land for housing development had to be suitably located in relation to economic opportunities and social amenities.

Local Government: Municipal Planning and Performance Management Regulations: Introduces municipal integrated development planning, with the main aim of ensuring focused delivery through the temporal and spatial coordination of development and investment initiatives in all three spheres of government.

The Development Facilitation Act (DFA): Establishes special measures to facilitate and speed-up the implementation of the RDP.

The Urban Development Framework: National guidelines for the development of urban areas in South Africa. Includes specific recommendations such as mixed land use and undoing the apartheid city by linking the component parts of the city through high-density activity corridors, township upgrading and urban infill.

Local Government: Municipal Systems Act: Puts in place mechanisms and principles to ensure government moves towards social and economic upliftment, including right to basic municipal services. An SDF is required as part of a municipality's Integrated Development Plan to give effect to the principles contained in the DFA.

PHASE 3: building HUMAN SETTLEMENTS

Policy intent = "to promote the achievement of a non-racial, integrated society through the development of sustainable human settlements and quality housing"; limiting urban sprawl and promoting land development in sustainable locations that optimise the use of existing resources and infrastructure.

Characterised by the prominence of social and rental housing, informal settlement upgrading, citizen participation and increased emphasis on the role of cities.

PHASE 4: building URBAN COMMUNITIES

Policy intent = spatial justice, spatial efficiency, spatial quality, spatial sustainability, spatial resilience, spatial integration, inclusion and access, growth and governance, mixed income and mixed use, quality and safe public spaces, differentiation, and (racial, economic and social) integration and cohesion.

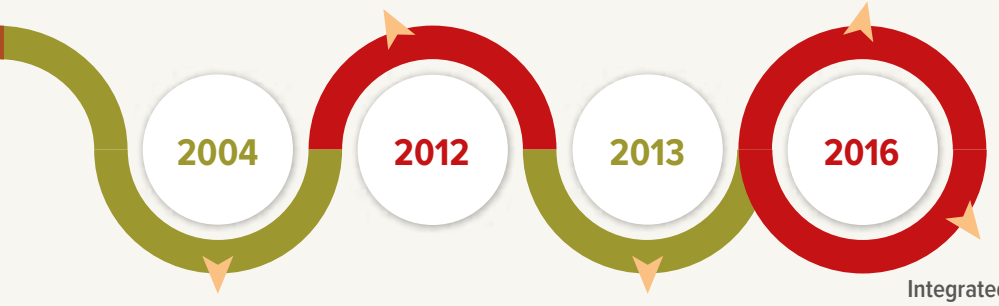
Characterised by spatial transformation and governance, spatial governance, active citizenry and co-production, responsibility for sustainable settlements and enabling sustainable livelihoods and access.

National Development Plan (NDP) 2030: Identifies the transformation of human settlements as a key element. Acknowledges that much of its spatial vision was known in 1994 but that the challenge is "to translate the vision into implementation and meaningful spatial outcomes" (NPC, 2012: 286). Key themes include justice, efficiency, quality, sustainability and resilience.

State of Cities Report IV: Acknowledges that the scale and appearance of South African cities have changed substantially in the past 20 years and that the quality of life of many city dwellers has also increased. Recognises the location of public housing developments reinforces urban sprawl, the lack of economic opportunities and growth near to where most people live and the lack of affordable accommodation close to economic opportunities. One chapter is devoted to spatial transformation (SACN, 2016b).

The State of Cities Report IV notes the following inherent costs of fragmentation and spatial dislocation:

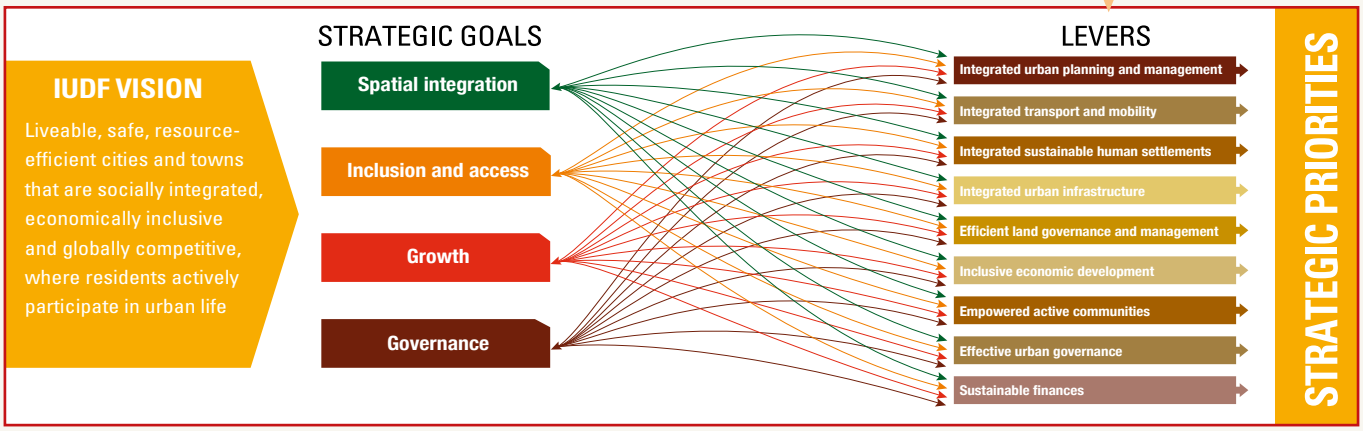
- **The cost of providing services in sprawling settlements is higher than in denser settlements.**
- **Households living in sprawling settlements pay higher transport costs (and spend more time) travelling to access employment opportunities and social amenities.**
- **Environmental costs that need to be understood within the context of global warming – urban sprawl means increased vehicle use, which contributes to air pollution.**



Breaking New Ground (BNG): Shifts the focus from providing housing to developing human settlements. Not a new policy directive but reinforces "the vision of the Department of Housing, to promote the achievement of a non-racial, integrated society through the development of sustainable human settlements and quality housing" (DoH, 2004: 7).

Spatial Planning Land Use and Management Act (SPLUMA): Requires the development of norms and standards for spatial and land-use management, development principles applicable to spatial planning, land development and land-use management, and prescriptions for preparing SDFs at various levels of spatial aggregation. Also empowers local and metropolitan municipalities to drive their own spatial planning.

Integrated Urban Development Plan (IUDF): Identifies the key outcome as spatial transformation and outlines the "New Deal", which is about maximising the potential of urban areas by integrating and aligning investments in a way that improves the urban form; and retrofitting the existing city footprint to produce compact, coordinated and connected cities, using transit-oriented development and other urban-planning strategies (COGTA, 2016). Spatial transformation is about safe, inclusive, sustainable and resilient settlements; coordinated and improved public transport (reduced travel time); jobs shifted to high-density townships; increased densities and no sprawl or housing in marginal places.



PART 2

City Profiles

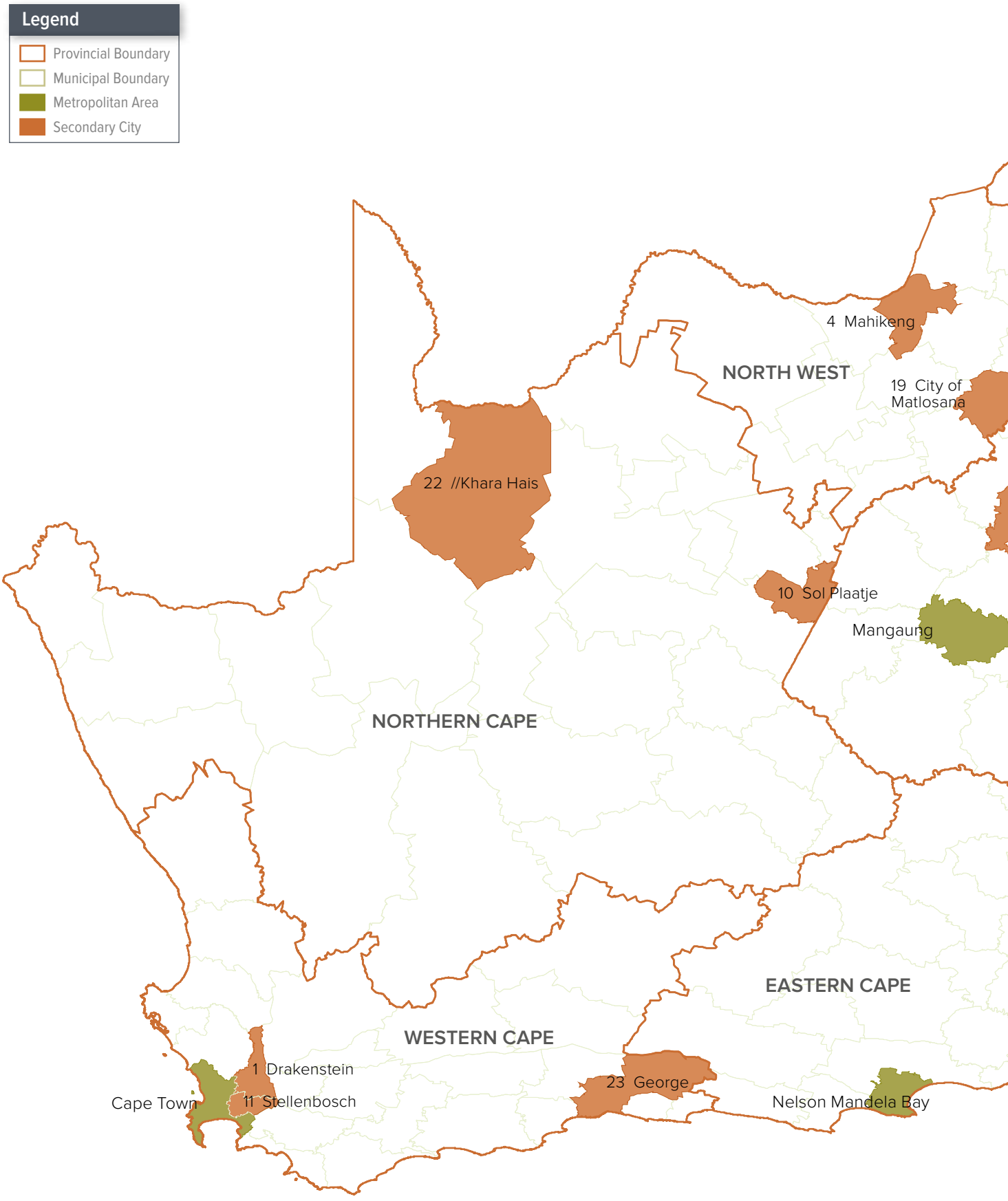
To explore the question of whether spatial transformation in intermediate cities is somehow unique, 11 case study cities were chosen. The 11 cities were taken from the 25 intermediate cities identified in the IUDF Intermediate Cities Municipalities Programme, which divides the cities into five groups.

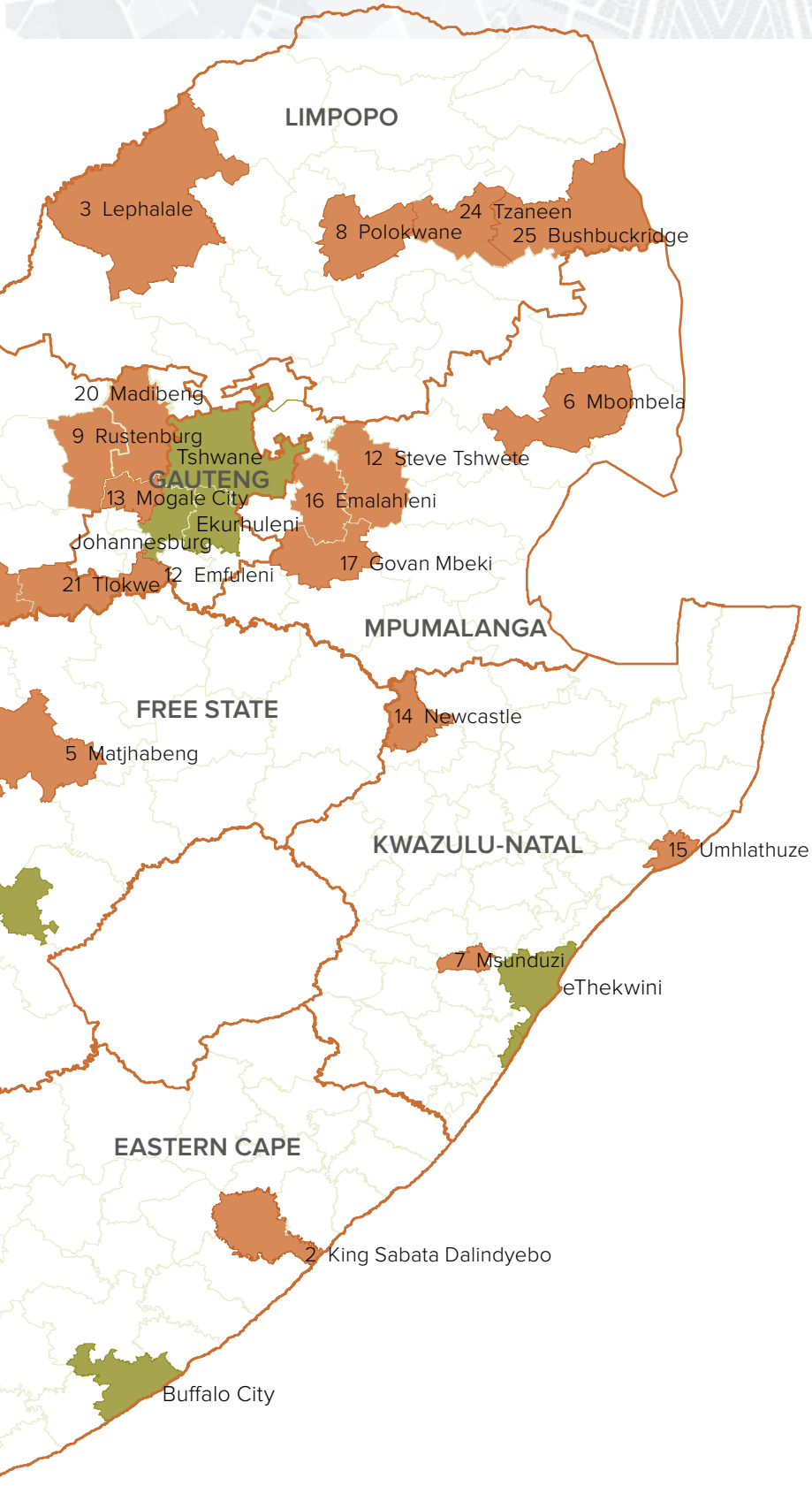
The research into the 11 cities looked at their history; economy and finance; spatial change and growth in urban land; spatial transformation challenges; and indicators associated with population, access to services and finance. It also evaluated the process, quality and implementation of the city's SDF.

Table 2: A comparison of the key indicators for the 11 intermediate cities

City	Established in (main urban area)	Location and linkages	Current population	Urban population	Annual GVA 1996-2015	Economic driver	Growth in urban land (1990-2014)	Main spatial transformation challenge
Drakenstein	Early 1600s (Paarl)	Within 50km from the Cape Town Metro; On N1; Access to Cape Town International	280 000	85%	2.7	Regional service centre	8.7%	Low and high – income sprawl; Inclusivity
KSD	1883 (Mtatha)	Deep rural location in the Eastern Cape. On N1, air link link to Johannesburg, historical capital of Transkei	490 000	35%	2.9	Regional service centre	–3.2%	Low density sprawl in Mthatha and traditional land
Lephalale	1960 (Ellisras)	Rural Limpopo. Main route between Gauteng and Botswana	140 000	40%	2.7	Coal mining	61.5%	Dealing with urban growth related to mining and energy creation
Mahikeng	1884 (Mafikeng)	West off the North West Province, Air link to Johannesburg	310 000	17%	2.7	Provincial capital	4.9%	Traditional land
Matjhabeng	1947 (Welkom)	Central Free State	400 000	98%	–0.2	Depleted gold mining area	14.6%	Dealing with the spatial consequences of mine decline
Mbombela	1873 (Nelspruit)	Eastern Mpumalanga. On N4 (Gauteng-Maputo corridor)	620 000	13%	2.7	Regional service centre and provincial capital	16.5%	Traditional land and conflict between local authority and traditional authorities
Msunduzi	1838 (Pietersburg, later Polokwane City)	KwaZulu-Natal, on N2 (Durban-Gauteng corridor)	680 000	75%	3.0	Regional service centre and provincial capital	6.4%	Power of existing land owners, private developers determine land expansion
Polokwane	1886 (Pietersburg)	Limpopo, provincial capital, N1 (Gauteng-Zimbabwe route)	700 000	39%	3.8	Regional service centre and provincial capital	39.0%	Traditional land
Rustenburg	1851 (Rustenburg)	Located in the North West Province – the hart of the platinum industry in South Africa	620 000	68%	1.8	Platinum mining, was a regional service centre)	35.3%	Coping with growth and decline in the platinum mining industry
Sol Plaatje	1871 (Kimberley)	Located on the eastern boundary of the Northern Cape, N8 linking Kimberley with Mangaung and Lesotho	250 000	99%	1.9	Historically diamond mining, now provincial capital	4.3%	Dealing with the long term consequences of diamond mining
Stellenbosch	Late 1600s (Stellenbosch)	Located within a 50 km radius from Cape Town inner city; close proximity to Cape Town international airport, the N1 and N2	175 000	91%	2.9	Regional service centre and university city	5.7%	Low-income sprawl; Inclusivity

Locating the secondary cities





Secondary City		Major town	District
1	Drakenstein	Paarl	Cape Winelands
2	King Sabata Dalindyebo	Mthatha	Oliver Reginald Tambo
3	Lephalale	Ellisras	Waterberg
4	Mahikeng	–	Ngaka Modiri Molema
5	Matjhabeng	Welkom	Lejweleputswa
6	Mbombela	Nelspruit	Ehlanzeni
7	Msunduzi	Pietermaritzburg	Umgungundlovu
8	Polokwane	Pietersburg	Capricorn
9	Rustenburg	–	Bojanala Platinum
10	Sol Plaatje	Kimberley	Frances Baard
11	Stellenbosch	–	Cape Winelands
12	Emfuleni	Vereeniging	Sedibeng
13	Mogale City	Krugersdorp	West Rand
14	Newcastle	–	Amajuba
15	Umhlathuze	Richards Bay	uThungulu
16	Emalahleni	Witbank	Nkangala
17	Govan Mbeki	Secunda	Gert Sibande
18	Steve Tshwete	Middelburg	Nkangala
19	City of Matlosana	Klerksdorp	Dr Kenneth Kaunda
20	Madibeng	Brits	Bojanala Platinum
21	Tlokwe	Potchefstroom	Dr Kenneth Kaunda
22	//Khara Hais	Upington	Siyanda
23	George	–	Eden
24	Bushbuckridge	–	Ehlanzeni
25	Greater Tzaneen	Tzaneen	Mopani

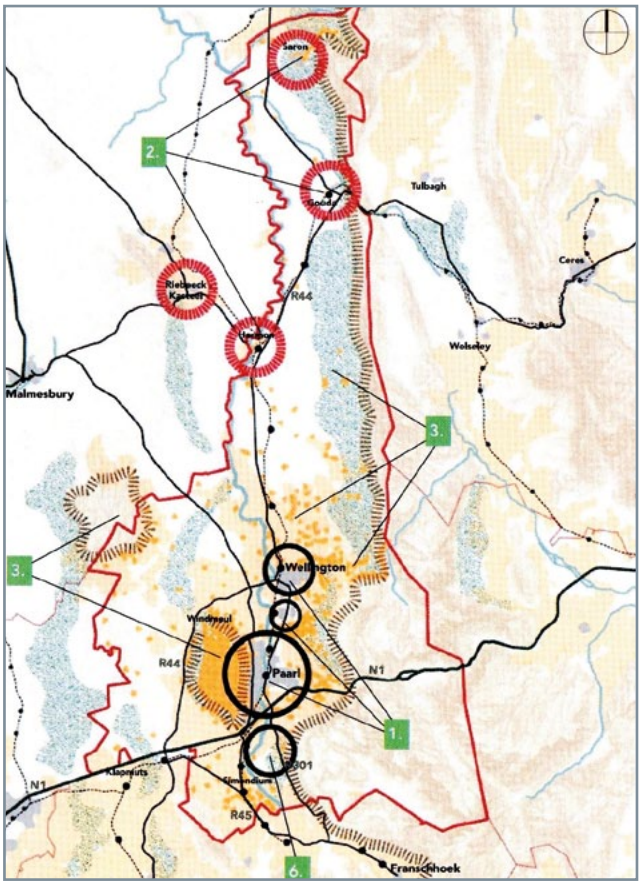
Metros in South Africa	Major town
Buffalo City	East London
Nelson Mandela Bay	Port Elizabeth
Mangaung	Bloemfontein
City of Johannesburg	Johannesburg
Ekurhuleni	Germiston/Alberton/Kempton
Tshwane	Pretoria
Ethekwini	Durban
Cape Town	Cape Town

Drakenstein

> "THE TWO MAIN AREAS OF DEVELOPMENTAL GROWTH PRESSURES ARE FOR THE DEVELOPMENT OF GATED DEVELOPMENTS AND INFORMAL HOUSING. POLITICS ARE OF COURSE HERE INTERTWINED WITH DEVELOPMENT APPLICATIONS."

Drakenstein (Paarl) was colonised in the latter part of the 1600s, whereas Wellington was established much later, in the 1840s. In 2001, Drakenstein was not incorporated into the Cape Town metro because of its rural nature. It is within 50 kilometres of the metro, on the N1 and with good access to Cape Town International Airport.

The Paarl-Wellington urban conurbation is spatially defined and segregated by a river (Berg River), a national highway (N1) and a town's boundaries. To the west of the river lies the predominantly former whites-only part of Paarl, which is mostly well-off and contains the CBD, a regional mall, the KWV and some wine farms. The psyche is strongly based on tradition and heritage, and your social status is largely determined by which highly sought-after model C school you went to, Paarl Boys High or Paarl Gymnasium. *Inkommers* (in-migrants) are not easily assimilated into the broader community and are frowned upon. To the east are the former coloured and black residential areas that include Mbekweni, a predominantly lower/middle-income area with pockets of middle-income earners. The psyche is mainly based on survival.



The area south of the N1 is characterised by urban sprawl and contains three major gated developments (Boschenmeer Golf Estate, Val de Vie Winelands Lifestyle Estate and the Pearl Valley Golf Estate and Spa) that are spatially separated from the rest of Paarl by the N1. Wellington is a very close-knit community into which *inkommers* also find it extremely difficult to be assimilated.

The municipality's spatial plans aim to contain the urban edge, to protect farmland and revive the CBD. Despite some sprawl, the municipality has been fairly successful in managing the urban edge, as shown by the increase in population density since 2001. However, the granting of permission to develop a decentralised mall (Paarl Mall) has had detrimental impacts on the CBD (Venema, 2016).

Key themes of the SDF

- Environmental management
- Agriculture, agrarian reform and rural development
- Heritage and cultural landscapes
- Connectivity and green logistics
- Sports and education
- Settlement and communities

The SDF emphasises the importance of the urban edge, higher densities, preventing urban sprawl, improving public transport, shifting jobs to high-density township areas, ensuring the open-space system, and protecting biodiversity and high-value agricultural land. The planning tools used include development corridors and spines, mixed-use nodes, protection of the urban boundary, densification and urban renewal. However, the SDF shows little evidence of focusing on reducing travel times, developing inclusive housing, preventing housing in marginal areas, coordinating transport systems, creating safe or resilient settlements, and developing nodes and economic development zones. It does not feature any advanced spatial-transformation planning, such as inclusionary housing (mixed-income housing combined with mixed use) and does not consider the impact of global warming.

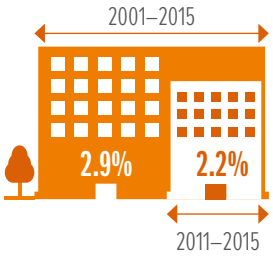
A major stumbling block is politics and capital. Council makes some spatial planning decisions that are counter to the creation of a sustainable, equitable and transformed city. Private developers easily persuade councillors (and by implication politics) to allow developments that are contradictory to sustainable planning principles.

MAIN URBAN CENTRE: PAARL (established early 1600s)

DRAKENSTEIN
MUNISIPALITEIT • MUNICIPALITY • UMASIPALE WASE

THE ECONOMY

Economic growth per annum



Main economic function

Regional service centre
(but integrated into the Cape Town Metro)

Economic drivers

- Part of Cape Town functional economy
- Agricultural economy and associated industries (manufacturing and tourism)
- Educational niche

THE MUNICIPALITY

Governing party

DA

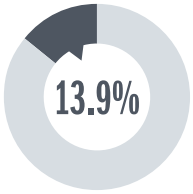
Size of municipal area

Municipal expenditure (approx.)

R1.6-billion per annum

No. of employees

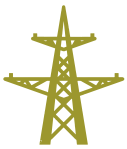
Property taxes as % of own income



Audit outcomes

2014	2015	2016
Clean	Clean	Clean

HOUSEHOLD INFRASTRUCTURE ACCESS (2011)

Households with indoor water	Households with flush toilets	Households with electricity	Households living in informal structures
			
80.0%	93.7%	95.0%	13.4%

SPATIAL CHANGE

Total population

of which 85% live in urban areas

Population growth (1996–2011)

2.6% per annum (2001–2011)

Total size of dense settlements (urban)

Urban land growth (1990–2014)

SPATIAL TRANSFORMATION CHALLENGES

Low- and high-income sprawl and lack of inclusivity

- Urban sprawl (high-income gated communities and informal land invasions)
- Retention of agricultural sense of place (containing urban edge)
- Revival of the CBD
- Lack of strategic locations for low-income housing in the area

KSD

> "THE BIGGEST STUMBLING BLOCK IS THAT TRADITIONAL LEADERS ARE NOT YET BUYING INTO THE PLANS. AS A RESULT, WHEREVER TRADITIONAL LEADERS ARE CUSTODIANS OF THE LAND, THERE IS A LOT OF RESISTANCE IN TERMS OF ALLOWING IMPLEMENTATION OF THE SPATIAL PLANS"

KSD is in rural Eastern Cape, home to the isiXhosa-speaking population of South Africa for centuries. In 1883, what started as a military post for the British colonial forces became a town (Mthatha). Through the years, the town played an important administrative and regional service role in the Eastern Cape hinterland. In the mid-1970s, when the apartheid government introduced its homeland policy, Mthatha became the capital of the Transkei and was renames Umtata. In 2001, the KSD Municipality was established and in 2004, the city's name was changed back to Mthatha. Prominent politicians who originate from this area include Nelson Mandela (whose retirement home at Qunu is within the current municipal boundaries), Walter Sisulu and Bantu Holomisa. KSD is on the N1 and has an air link to Johannesburg.

KSD contains a large area of traditional land within the municipal boundaries but has no agreement with traditional leaders about servicing and developing the land. The urban sprawl is largely associated with settlement on traditional land on the fringes of the formally proclaimed town, in areas that the SDF considers unsuitable for development.

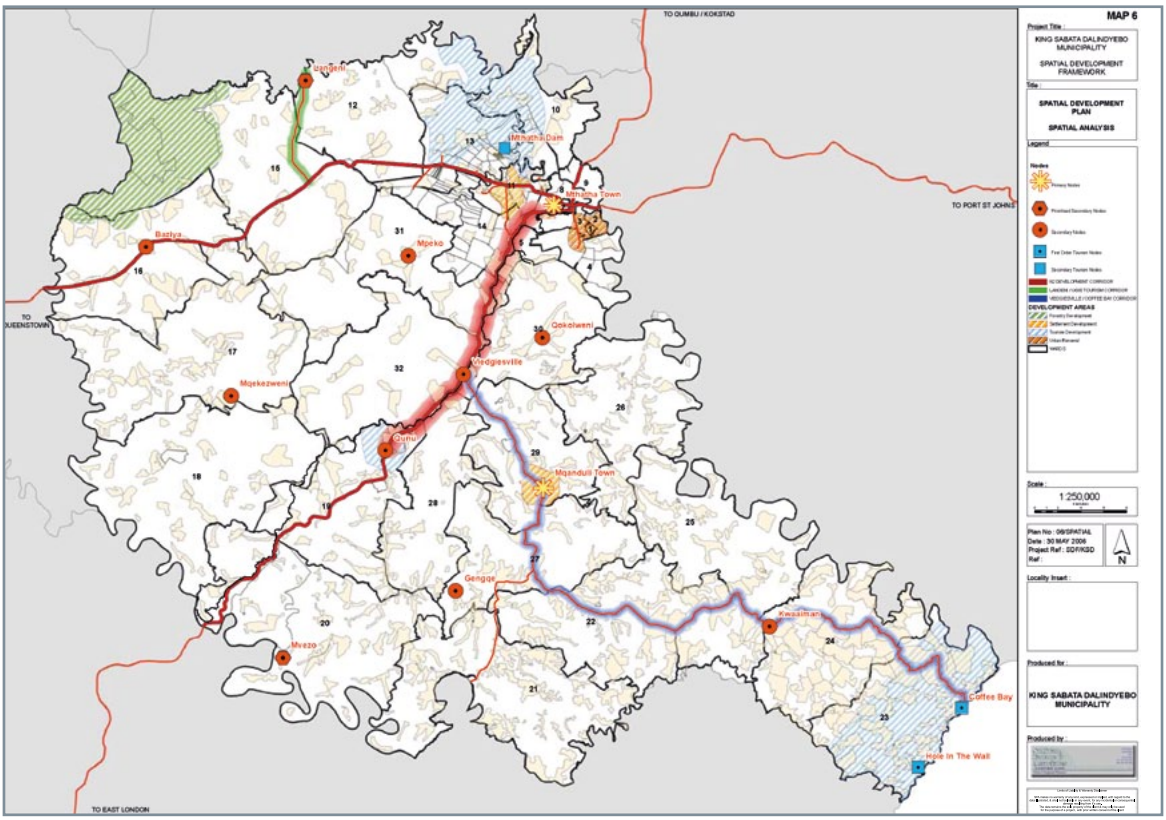
Key themes of the SDF

- Promoting the Municipality's economic generation potential
- Improving accessibility
- Maximising opportunities for the poor
- Minimising the cost of physical expansion
- Promoting a sustainable environment

The SDF provides for increased densities; mentions sustainability, reliance and inclusivity; refers to assuring the integration of modes of transport; and includes ways of reducing settlement development in marginal locations. It uses planning tools including the N2 Transport Corridor, although this transport corridor is likely to became a toll road once completed, which will negatively affect commuters and may discourage smaller companies from using the route.

However, the SDF does not provide concrete strategies for preventing sprawl, ensuring shorter travel times or improving public transport (despite talk of introducing a BRT system), nor does it mention taking job opportunities to high-density township areas or creating safe settlements as a priority area

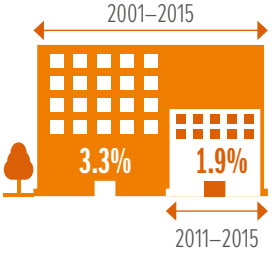
The municipality has had much success in achieving integration in the municipal housing scheme, with development in former coloured areas attracting members of all races. In addition, considerable infrastructure development (through national government and the Presidential Intervention Project) has taken place in the development zones identified in the SDF, but implementation of developments driven by local and district-level government is slow.



MAIN URBAN CENTRE: MTHATHA (established 1883)

THE ECONOMY

Economic growth per annum



Main economic function

Regional service centre

Economic drivers

- Regional services role (capital of former Transkei)
- Home to main campus of Walter Sisulu University of Technology and Science
- Business linkages thanks to N2 passing through city

THE MUNICIPALITY

Governing party

ANC

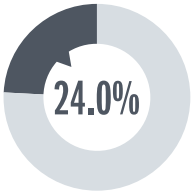
Size of municipal area

Municipal expenditure (approx.)

R1-billion per annum

No. of employees

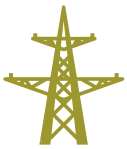
Property taxes as % of own income



Audit outcomes

2014	2015	2016
Qualified	Qualified	Qualified

HOUSEHOLD INFRASTRUCTURE ACCESS (2011)

Households with indoor water	Households with flush toilets	Households with electricity	Households living in informal structures
			
19.1%	33.8%	73.2%	2.0%

SPATIAL CHANGE

Total population

of which 35% live in urban areas

Population growth (1996–2011)

0.8% per annum (2001–2011)

Total size of dense settlements (urban)

Urban land growth (1990–2014)

SPATIAL TRANSFORMATION CHALLENGES

Low density sprawl in Mthatha and traditional land

- Limited land available for urban development
- Illegal settlements (informal land invasions)
- Lack of bulk infrastructure services

> "THE MUNICIPALITY FINDS IT DIFFICULT TO ENGAGE WITH THE MINING COMPANY AND WITH ESKOM."

Lephalale

Indigenous populations settled in the area four or five centuries ago, and colonial farm settlements date back to the mid-19th century. However, urban settlement in Lephalale is a fairly recent phenomenon: Ellisras was only formally established in the 1960s, initially as a bus stop and a regional service centre. In the mid-1970s, ISCOR decided to mine coal actively in the area. Soon after the opening of the Grootgeluk Mine in 1981, Eskom built the Matimba Power Station (in 1989). While the high-grade coal from Grootgeluk is used in iron and steel production, lower-grade coal is used in energy production. The recently completed Medupi Power Station has brought added pressure to bear on the town's mineral-energy complex.

As the town was established after 1948, planning rigidly followed the apartheid planning regime. Marapong, the former black township, was established some distance from Ellisras but close to the mines and the power stations. Some hostels were created for Eskom workers. The tribal land is nearly 60 km away from Ellisras, and a substantial portion of the population also still lives on commercial farms. Lephalale is situated in rural Limpopo and on the main route between Gauteng and Botswana.

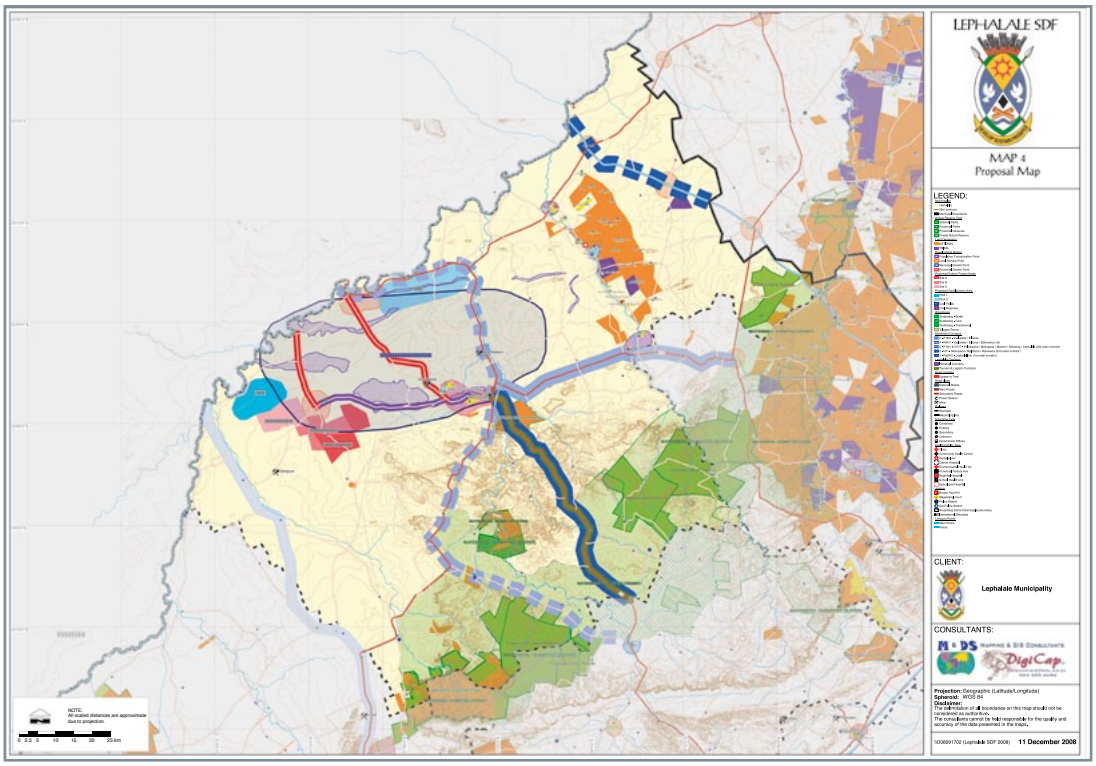
The expansion of mining and the construction of Medupi resulted in a considerable influx of people, with land expansion and urban sprawl becoming the norm. Two processes of urban sprawl are evident: formal land expansion to accommodate large numbers of people, and informal land invasions associated with mine employment and contract workers at Medupi (including those flocking to the area in the hope of finding employment). There is also evidence of some sprawl on traditional land in Lephalale.

Key themes of the SDF

- To provide stable and predictable conditions for investment that is sequenced for optimal impact
- To provide clarity to every sphere of government and every sector regarding the investment requirements to maximise the opportunities for transforming people's lives for the better
- To create an efficient development approval process so as to facilitate economic development
- To accelerate spatial transformation so as to reverse the undesirable settlement patterns that have emanated from past practices

The SDF provides for higher densities, states that sprawl and travel time should be reduced and refers to resilience, mixed-income development and preventing housing being developed in marginal areas (but does not state which areas are considered marginal).

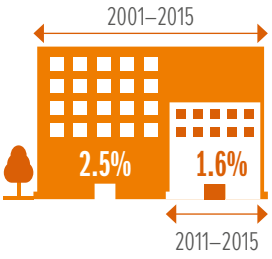
However, the SDF does not refer to public transport or the mixing of public transport nodes and does not consider sustainability, safety and taking jobs to high-density township areas. There is also little evidence that planning tools are to be used to support SDF outcomes.



MAIN URBAN CENTRE: ELLISRAS (established 1960)

THE ECONOMY

Economic growth per annum



Main economic function

Coal mining and energy creation

Economic drivers

- Mining
- Energy creation
- Location on main route linking Gauteng and Botswana

THE MUNICIPALITY

Governing party

ANC

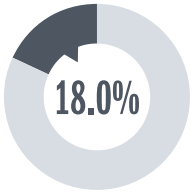
Size of municipal area

Municipal expenditure (approx.)

R410-million per annum

No. of employees

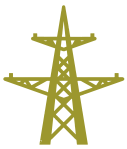
Property taxes as % of own income



Audit outcomes

2014	2015	2016
Unqualified with findings	Unqualified with findings	Unqualified with findings

HOUSEHOLD INFRASTRUCTURE ACCESS (2011)

Households with indoor water	Households with flush toilets	Households with electricity	Households living in informal structures
			
31.4%	46.3%	85.0%	15.2%

SPATIAL CHANGE

Total population

of which 40% live in urban areas

Population growth (1996–2011)

3.1% per annum (2001–2011)

Total size of dense settlements (urban)

Urban land growth (1990–2014)

SPATIAL TRANSFORMATION CHALLENGES

Impact of urban growth related to mining and energy creation

- Spatially fragmented development (perpetuated by mining)
- Need to bring urban and traditional areas on par in terms of access to basic services
- Lack of densification and mixed land use
- Increased informality (caused by high property prices)

Mahikeng

> "MUCH OF THE MUNICIPALITY IS UNDER TRADITIONAL AUTHORITY WITH A FORMAL AREA 'CITY' AS AN ENCLAVE IN THE MIDST OF THE TRIBAL LAND. THE MUNICIPALITY HAS LITTLE CONTROL OVER DEVELOPMENT IN THESE AREAS."

Historically, the Batswana people constructed settlements wherever permanent watercourses could provide for people, cattle and crops. The arrival of the missionaries (the London Missionary Society and the Hermannsburg Mission Society) who promoted the development of a permanent and settled agricultural economy, led to the introduction of new crop techniques and irrigation (Drummond and Parnell, 1999). By the 1880s, the mission station had became a beacon of agricultural innovation and increased production to satisfy the demand from a growing Kimberley. Mafeking (as it was then known) served as the centre of British colonial rule in Bechuanaland, until Botswana's political independence in 1966 and the construction of Gabarone. In 1977, the Bophuthatswana Bantustan attained "independence", and a new capital (Mmabatho) was built six kilometres north of Mafeking. The white inhabitants of Mafeking agitated to join Bophuthatswana, led by the business community anxious to restore the prosperity of the former colonial era. In 1980 the town was incorporated in Bophuthatswana and renamed Mafikeng. In 2010, the town was again renamed as Mahikeng. Informally developed areas under traditional authority surround most of the urban area, except for the Mahikeng Nature Reserve to the south-east. Mahikeng is in the west of the North West Province and has an air link to Johannesburg.

The municipality must balance a large, rural, traditional component with growing urban needs. It must generate income from the small urban area but spend a large portion of the municipal budget on basic services in the rural area. It wants to densify and pursue an efficient and viable urban spatial form but also has to provide for demands for large houses, near the periphery of the urban area, and the needs of the majority of its residents within the tribal areas.

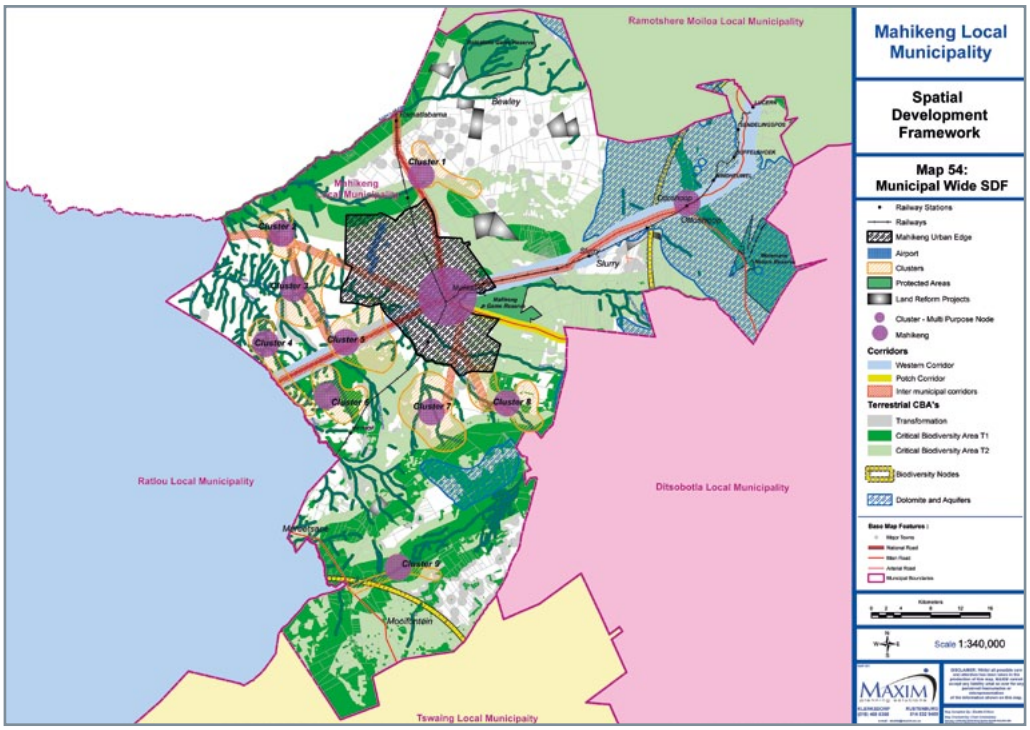
Key themes of the SDF

- An emphasis on sustainable development
- Densification of tribal land
- Viable service delivery
- Protection of bio-diversity, agricultural land and aquifers

The SDF proposes higher densities and the prevention of sprawl; refers to improving sustainability through improved environmental planning, securing biodiversity and incrementally increasing densities in the urban area and rural nodes; proposes corridors to reduce travel time and improve public transport; and mentions developing housing in marginal areas.

However, proposals cannot be implemented without enforcement by tribal authorities, and traditional land cannot be serviced without an agreement with traditional leaders. The SDF acknowledges that the municipality has limited control over areas under traditional leadership where longstanding customs dictate low densities and a reluctance to move.

Despite being a relatively good plan, the SDF is not firmly embedded in the municipality and the status quo (land under traditional authority rule) does not help in planning a better functional urban form.



MAIN URBAN CENTRE: MAFIKENG (established 1884)

MAHIKENG

THE ECONOMY

Economic growth per annum

2001–2015

3.8%

2.3%

2011–2015

Main economic function

Provincial capital

Economic drivers

- Capital city (historically of Botswana and Bophuthatswana and today of North West Province)
- Home to one of the campuses of the North West University
- Close to Botswana

THE MUNICIPALITY

Governing party

ANC

Size of municipal area

3698 km²

Municipal expenditure (approx.)

R742-million per annum

No. of employees

850

Property taxes as % of own income

42.0%

Audit outcomes

2014	2015	2016
Qualified	Disclaimer	Disclaimer

HOUSEHOLD INFRASTRUCTURE ACCESS (2011)

Households with indoor water	Households with flush toilets	Households with electricity	Households living in informal structures
30.9%	32.8%	84.5%	10.4%

SPATIAL CHANGE

Total population

310 000

of which 17% live in urban areas

Population growth (1996–2011)

20.3%

1.2% per annum (2001–2011)

Total size of dense settlements (urban)

21 870 ha

Urban land growth (1990–2014)

4.9%

SPATIAL TRANSFORMATION CHALLENGES

Functionally urban population residing on traditional land

- Spatial structure and low density sprawl
- Large areas under tribal authority (contribute to sprawl)
- Lack of municipal control over development

> "A MAJOR WEAKNESS OF THE 2013 SDF IS THAT IT ASSUMED THE MUNICIPALITY WOULD GROW AT THE AVERAGE GROWTH RATE OF SOUTH AFRICA."

Matjhabeng

Pockets of Sesotho-speaking people lived in the area before colonial settlement in the middle of the 19th century. Ventersburg was established prior to 1902, while Theunissen, Henneman and Odendaalsrus were added after 1902, and Welkom, Virginia and Allanridge developed in the early 1940s, after the discovery of gold. In 1972, South Africa left the gold standard and gold mining was in decline. But within a year, the price of gold shot up from below $50 to well over $200 per fine ounce, reaching $600 in 1980, at the height of the boom. Marginal mines became profitable, new shafts were sunk, and city fathers shelved plans developed in the mid-1960s to diversify the economy. Gold mining was the only future for the Free State Goldfields (Marais and Nel, 2016). Then, from the late 1980s, the gold price plummeted, mines were no longer profitable and deeper mining raised accident levels. In the 1990s, Anglo-American sold their mines, in part due to the rise of labour unions. The decline in mining was far more serious than predicted in planning scenarios (Marais, 2013). Today, only 10 of the original 52 shafts are operational. The apartheid geography is still discernible, as the different towns still have their former black townships: e.g. near Welkom are Bronville (coloured population) and Thabong (black population). Matjhabeng is located in the central Free State. Eastern Mpumalanga. On N4 (Gauteng-Maputo corridor).

Urban sprawl is a major concern and driven by:

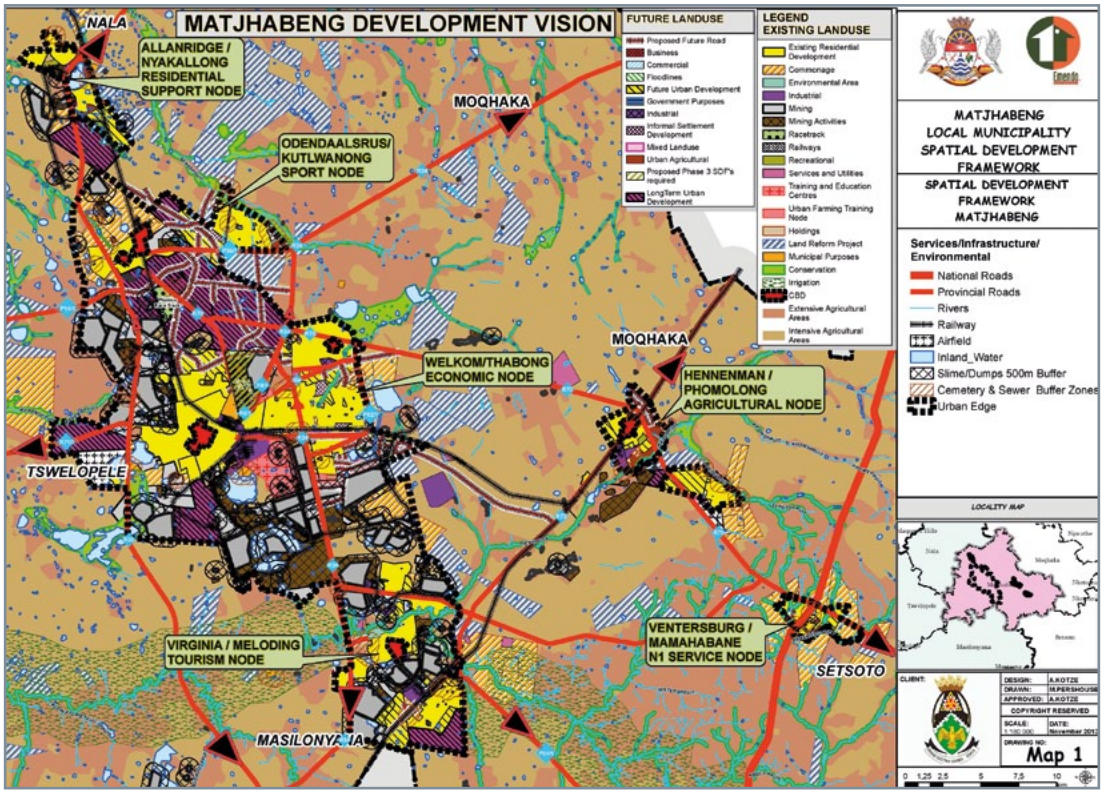
- Mine closure and the changing labour regime and housing policies
- The Strategy on the Revitalisation of Distressed Mining Towns and government-funded, low-income housing that extended Thabong's eastern boundary
- Derelict mining sites, which prevent the achievement of higher densities and spatial integration
- Retail developments. E.g. Boitumelo Junction, a R250-million 21 000m^2 mall development near Thabong

Despite continued sprawl, the SDF seeks to increase densities and prevent sprawl.

Key themes of the SDF

- Integrate historically advantaged and disadvantaged communities
- Maximise the vacant land to benefit the community
- Encourage residential densification within CBDs
- Minimise the impact of mining activities on future development areas
- Establish integrated housing projects with options for different income levels
- Address imbalances by establishing complementary land uses in historically disadvantaged areas
- Encourage informal settlements upgrading
- Promote urban and rural linkages

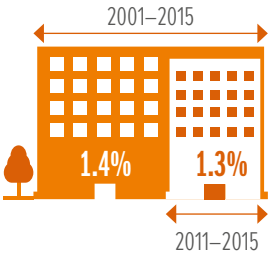
The municipality is generally struggling to execute its SDF's objectives.



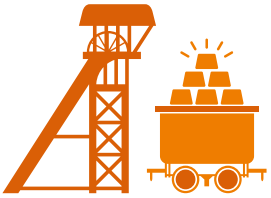
MAIN URBAN CENTRE: WELKOM (established 1947)

THE ECONOMY

Economic growth per annum



Main economic function



Depleted gold mining

Economic drivers

- Gold deep mining, which is in decline (40% of economy dependent on the mining industry)

THE MUNICIPALITY

Governing party

ANC

Size of municipal area

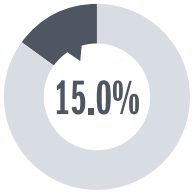
Municipal expenditure (approx.)

R2.1-billion per annum

No. of employees

2400

Property taxes as % of own income



Audit outcomes

2014	2015	2016
Disclaimer	Disclaimer	Not available

HOUSEHOLD INFRASTRUCTURE ACCESS (2011)

Households with indoor water	Households with flush toilets	Households with electricity	Households living in informal structures
54.8%	82.0%	91.1%	19.7%

SPATIAL CHANGE

Total population

of which 98% live in urban areas

Population growth (1996–2011)

-0.14%

-0.2% per annum (2001–2011)

Total size of dense settlements (urban)

Urban land growth (1990–2014)

SPATIAL TRANSFORMATION CHALLENGES

The spatial consequences of mine decline

- Oversupply of residential units (negative impact on housing market)
- Urban sprawl (formalisation of low-income areas)
- Lack of density and spatial integration (made worse by derelict mining sites)
- Retail development and lack of economic diversification

Mbombela

> "In order to achieve its constitutional mandate, the local municipality and the traditional authorities have to accept one another's edicts to provide services and to manage these communities."

In the 1400s, an Nguni migration arrived from the north with herds of cattle and built stone-walled houses for their settlements in the area. The Swazi nation of today originated at the time of King Ngwane, and so this area was called KaNgwane. In 1873, the discovery of gold about 80 km north of Nelspruit (the current Mbombela), brought many prospectors to this area that was then ruled by the Zuid-Afrikaansche Republiek (ZAR) – also referred to as the Transvaal Republic. A railway line was built to connect the goldfields in the land-locked Transvaal to the port of Delagoa Bay (later renamed Lourenço Marques, now Maputo) in neighbouring Mozambique. The decision to run the railway line through this area resulted in the birth of a village that was to become the capital (Mbombela) of the Mpumalanga Province more than a century later.

Nelspruit never had a black township relatively close to the former white suburbs. The former black townships (Kabokweni, Kanyamazane and Matsulu) of Nelspruit were effectively placed behind the homeland boundaries 30 km east of Nelspruit. Urban sprawl is largely associated with settlements near Nelspruit and on traditional land. Mbombela is located in Eastern Mpumalanga on the N4, the Gauteng–Maputo corridor).

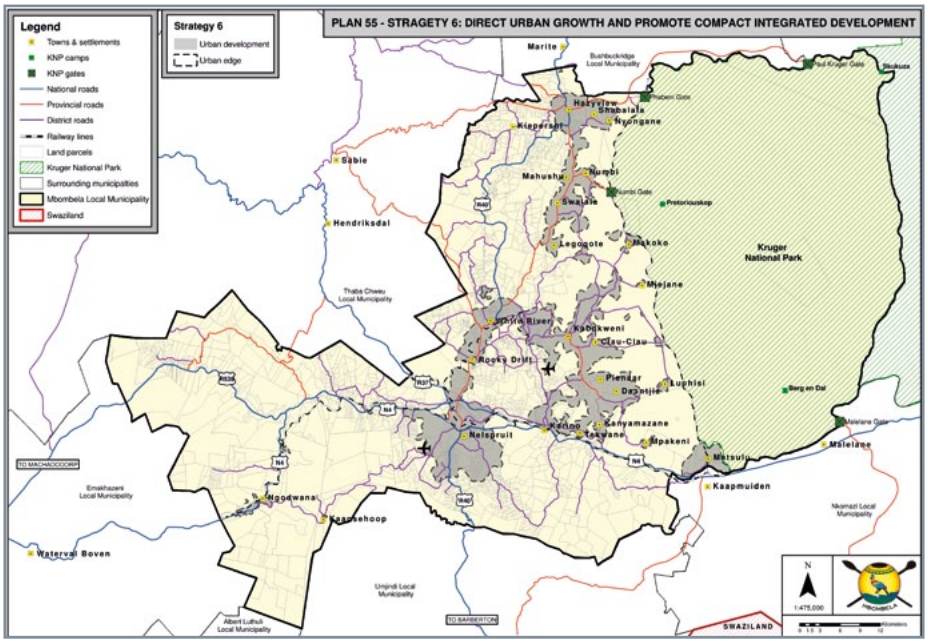
The population living on urban land is generally small, with the majority of people living on traditional areas. The interface between the municipality and the traditional authorities has not been conducive to persuading the municipality to provide services to those living on traditional land. This situation remains one of the key constraints and resolving it will require effort from both national and local government.

Key themes of the SDF

- The provision of a clear and logical framework for private and public sector investment
- The promotion of sustainable development in terms of both the natural and the built environment
- The provision of a framework for dealing with key issues such as natural resource management, land reform and land use management
- Guiding and informing directions of growth and major movement routes
- The facilitation of the development of an aesthetic urban form and landscape

The SDF plans to reduce travel times and travel distances, increase urban densities through infilling, contain the urban edge, improve public transport and integrate transport modes, and create inclusive settlements. It contains some evidence of resilience and sustainability, and speaks about preventing the erection of housing in marginal places (though the concept currently lacks clear definition) and safety within the settlement environment.

Planning tools include the implementation of the Urban Edge Policy and the Residential Development Policy. Economic opportunity zones identified are the Nsikazi Activity Corridor and the Nelspruit/White River Activity Corridor, while mixed-use developments are proposed in the Mataffin Precinct. The effects of interventions are monitored to determine their influence on job creation, applications for new businesses, infrastructure upgrading and for increases or decreases in the numbers of national and international tourists visiting the area. The increase in the number of approved building plans – from 328 in 2011 to 828 in 2015 – attests to the positive impact of such initiatives.

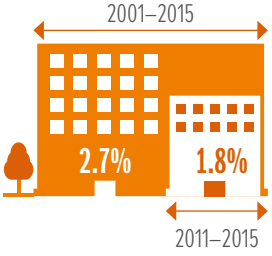


MAIN URBAN CENTRE: NELSPRUIT (established 1873)

CITY OF MBOMBELA
THE ULTIMATE DESTINATION

THE ECONOMY

Economic growth per annum



Main economic function

Regional service capital and provincial capital

Economic drivers

- Historical role as regional service centre
- Capital status in the Mpumalanga Province
- Leisure tourism (close to Kruger National Park and private game reserves)
- Business tourism (located in the Maputo Corridor)

THE MUNICIPALITY

Governing party

ANC

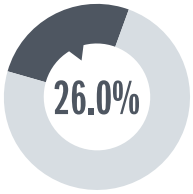
Size of municipal area

Municipal expenditure (approx.)

R2.1-billion per annum

No. of employees

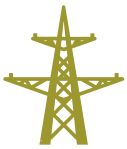
Property taxes as % of own income



Audit outcomes

2014	2015	2016
Unqualified with findings	Unqualified with findings	Not available

HOUSEHOLD INFRASTRUCTURE ACCESS (2011)

Households with indoor water	Households with flush toilets	Households with electricity	Households living in informal structures
			
37.1%	33.8%	90.2%	4.8%

SPATIAL CHANGE

Total population

of which 13% live in urban areas

Population growth (1996–2011)

2.1% per annum (2001–2011)

Total size of dense settlements (urban)

Urban land growth (1990–2014)

SPATIAL TRANSFORMATION CHALLENGES

Traditional land and conflict between traditional authorities and municipality

- Low densities because of historical fragementation and separation
- Long travelling times from area under traditional authorities (make access to job opportunities difficult)
- Topography (not all areas suitable for infill development)
- Large areas of land under traditional rule

> "THE MUNICIPALITY DOES NOT WANT TO DISTURB THE UPPER MIDDLE CLASSES BY BRINGING DEVELOPMENT CLOSER TO THEIR AREA, LEST THEY DISTURB THE TAX BASE."

Msunduzi

Msunduzi dates back to colonial settlement by the Voortrekkers who were attempting to establish an independent republic with Pietermaritzburg as its capital in 1838. Although the independent Republic of Natalia was short-lived and was replaced by the colony of Natal, Pietermaritzburg remained the capital. It also became the provincial capital of Natal after the unification of South Africa (1910) and the provincial capital of KwaZulu-Natal in the post-apartheid era (at times sharing some of these functions with Ulundi and Durban). The segregated geography that developed over many years of colonial and apartheid planning focused mainly on excluding the indigenous population and the Indian settlers who had arrived by the late 1860s (Willis, 1991). The promulgation of the Group Areas Act in 1950 led to the resettlement of the black population from Pietermaritzburg to peripheral locations. A range of settlements was created with Pietermaritzburg as the economic hub. Township areas that were created under apartheid planning include Edendale, Inadi Mpumuza and Mafunze. Msunduzi is located on the NW, the Durban–Gauteng corridor.

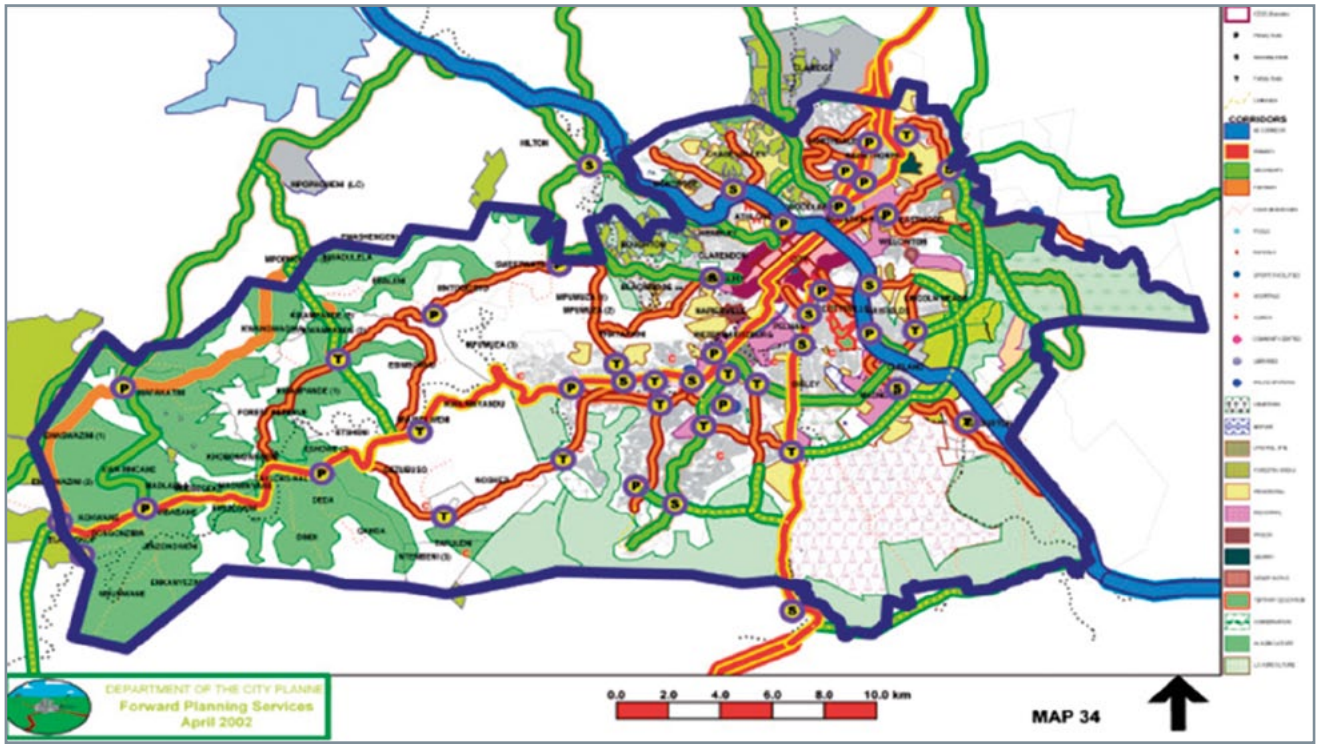
In Msunduzi, obstacles to spatial restructuring include the topography and the largely intact apartheid urban structure, and the municipality's fear of disturbing its tax base by bringing development closer to the centre and upsetting upper/middle class residents. The lack of spatial and racial integration is an important spatial concern. Furthermore, 26% of the population lives on communal land (Vulindlela), complicating the provision of infrastructure and services.

Key themes of the SDF

- Spatial transformation
- Equity and equality
- Spatial restructuring
- Recycling and upcycling
- Reinventing and public space making

The SDF sets specific targets for bringing people closer to work (although achieving the 30-minute target may require a BRT system), refers to minimising the development of housing in marginal areas (a spatial plan is being developed for the Vulindlela area), provides for higher densities and attempts to prevent sprawl. It proposes shifting jobs to high-density township areas, improving public transport, increasing the coordination of transport modes and creating safe and sustainable settlements (but resilience is not mentioned). The plan furnishes evidence of the importance of inclusive housing and makes provision for thinking up to 2050, listing a number of strategic projects.

However, the municipality is not able to hold its own in pursuing spatial transformation and is struggling to implement its SDF. Political interference in the daily management of the city is rife, and municipal staff do not value the SDF as an appropriate planning document. The business sector is largely dissatisfied with municipal governance and leadership and unspent funds are symptoms of deeper capacity and leadership issues within the municipality, which in turn affect project implementation. Furthermore, some concern was raised regarding the consultants who were responsible for compiling the SDF.



MAIN URBAN CENTRE: PIETERMARITZBERG (established 1838)

THE ECONOMY

Economic growth per annum

2001–2015

3.6%

1.8%

2011–2015

Main economic function

Regional service capital and provincial capital

Economic drivers

- Proximity to eThekwini and location on N3 (links eThekwini and Gauteng)
- Capital status
- Public university and public/private boarding schools
- Role as a service centre for surrounding agricultural industry

THE MUNICIPALITY

Governing party

ANC

Size of municipal area

634 km²

Municipal expenditure (approx.)

R4.2-billion per annum

No. of employees

5000

Property taxes as % of own income

21.0%

Audit outcomes

2014	2015	2016
Unqualified with findings	Clean	Qualified

HOUSEHOLD INFRASTRUCTURE ACCESS (2011)

Households with indoor water	Households with flush toilets	Households with electricity	Households living in informal structures
47.9%	60.2%	91.9%	8.2%

SPATIAL CHANGE

Total population

680 000

of which 75% live in urban areas

Population growth (1996–2011)

17.9%

1.1% per annum (2001–2011)

Total size of dense settlements (urban)

23 421 ha

Urban land growth (1990–2014)

6.4%

SPATIAL TRANSFORMATION CHALLENGES

Power of existing land owners and private developers who determine land expansion

- Lack of spatial and racial integration (apartheid spatial patterns largely intact)
- Very little evidence that the SDF is being implemented
- Unspent municipal budgets
- The Vulindlela traditional land complicates the provision of infrastructure and services

Polokwane

> "THE FACT THAT THE SDF IS NOT PROPERLY INTEGRATED INTO ALL MUNICIPAL DEPARTMENTS MEANS IT IS NOT REALLY PROMINENT AND NOT REALLY USED TO GUIDE DEVELOPMENT — DEVELOPMENT CAN THEREFORE BE INFLUENCED AS MUCH BY A PRIVATE DEVELOPER'S INTERESTS OR POLITICAL INTEREST."

Polokwane dates back to the latter part of the 1800s, when it was established as a regional service centre for colonial settlers in the former ZAR (Ntema & Venter, 2016). Apartheid planning developed the segregated geography, including the creation of Seshego and Mankweng (where the University of Limpopo is located). The homeland of Lebowa (for the Northern Sotho people) was declared a self-governing area in 1972, with Seshego as the temporary capital. A typical R293 town largely governed by South Africa, Seshego played the role of both township and extended town behind the homeland boundary (Cloete & Massey, 2017). In addition to Seshego and Mankweng, the municipality contains 170 smaller settlements on land managed by traditional authorities. In recent times (partly because of an embargo on land development), middle- and higher-income people have also settled in these small rural settlements.

The core node (Polokwane-Seshego) remains fragmented, despite some infilling in the past 25 years, and Mankweng is far away and not integrated. One of the best examples of infill development is found between Seshego and Polokwane City. Polokwane is the capital of Limpopo and located on the N1, the Gauteng–Zimbabwe route.

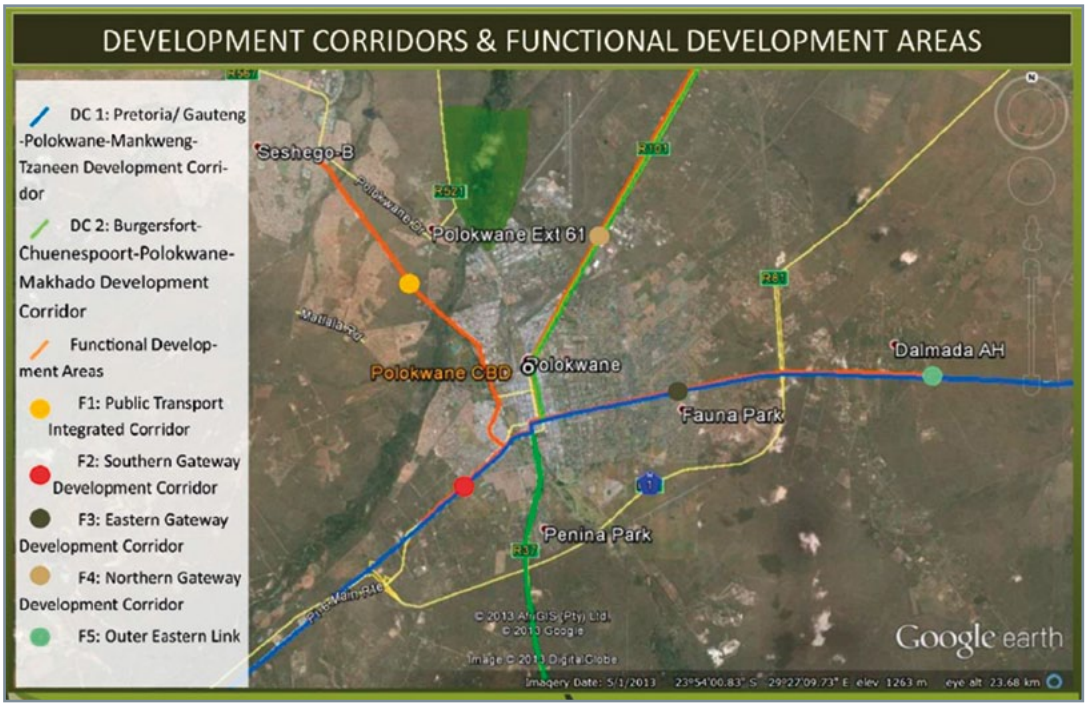
The municipality must balance a large rural, traditional component with growing urban needs, generating income from the urban areas but spending large budgets in rural areas. It wants to densify and pursue an efficient and equitable urban spatial form but also has to cater to demand for extensive lifestyle estates, gated communities and townhouse complexes near the peripheries of the urban areas.

Key themes of the SDF

- Guide growth in a sustainable way
- Promote economic growth and address unemployment
- Promote investment through industrial development
- Improve public transport and integrate sustainable human settlements
- Invest in infrastructure in priority areas
- Open up strategic land for economic development and attract investors
- Protect and preserve sensitive environmental areas

The SDF plans to reduce travel time and distances (introduce a BRT system), increase urban densities, fix the urban edge to prevent sprawl and create inclusive settlements through infilling. It mentions resilience and sustainability, but is silent on safety within settlements. The SDF says all the right things about spatial tools (e.g. corridor and nodal developments) but neglects basics (infrastructure maintenance and upgrading) necessary for attracting industries and businesses. It does not identify any restructuring zones but proposes developments around, for example, the Peter Mokaba Stadium.

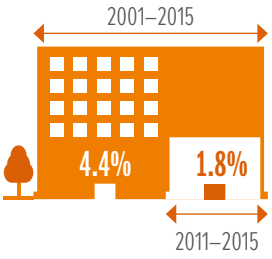
The municipality's SDF appears to be a "compromise" that is politically acceptable and spreads some development to all areas rather than through economic focal points. (In discussions, spatial planners noted their difficulty in designing an SDF that met with everyone's approval.)



MAIN URBAN CENTRE: POLOKWANE CITY (established 1886)

THE ECONOMY

Economic growth per annum



Main economic function

Regional services capital and provincial capital

Economic drivers

- Historical role as a regional service centre (+ decentralised industrial subsidies during apartheid)
- Creation of a university in 1959
- Provincial capital after 1994
- Attracts buyers from Zimbabwe (in economic decline)

THE MUNICIPALITY

Governing party

ANC

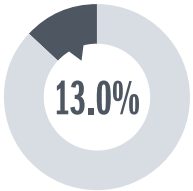
Size of municipal area

Municipal expenditure (approx.)

R1.6-billion per annum

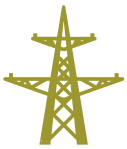
No. of employees

Property taxes as % of own income



Audit outcomes

HOUSEHOLD INFRASTRUCTURE ACCESS (2011)

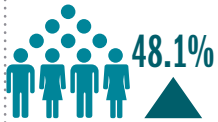
Households with indoor water	Households with flush toilets	Households with electricity	Households living in informal structures
			
37.1%	33.8%	90.2%	4.8%

SPATIAL CHANGE

Total population

of which 39% live in urban areas

Population growth (1996–2011)



2.2% per annum (2001–2011)

Total size of dense settlements (urban)

Urban land growth (1990–2014)

SPATIAL TRANSFORMATION CHALLENGES

Functionally urban population residing on traditional land

- Dispersed settlement pattern (fragmented core node and many smaller settlements on traditional land)
- Small urban area supporting a large rural hinterland
- Not capitalising on good spatial location of Polokwane City
- Spreading development across the municipality rather than focusing in growth areas

Rustenburg

> "At times, disagreement and differences in opinion between the municipality and tribal authorities lead to delay or stalled spatial development."

The Bafokeng communities lived in the area long before colonial settlement, when in 1851 the Boer communities established the town of Rustenburg, at the foot of the Magaliesberg, as a regional service centre. Today, the Bafokeng live on land that was "bought" from the colonial settlers. Many of the mines have been developed on traditional land and, in some cases, the Bafokeng have a specific royalties' agreement with the mining companies. Platinum mining around Rustenburg started as early as the 1920s but only expanded (massively) in the late 1980s and, in so doing, changed the face of the town. Overnight, Rustenburg became the headquarters of platinum mining in the country, and people flocked to the town. Apartheid planning created separate settlements for Indians, coloureds and black people, and forced relocations were central to creating the apartheid town structure. Between the 1990s and early 2000s Rustenburg had one of the fastest-growing urban economies in the country, and platinum replaced the historical importance of gold mining in South Africa. Located in the North West Province, Rustenberg is the heart of the platinum industry in South Africa.

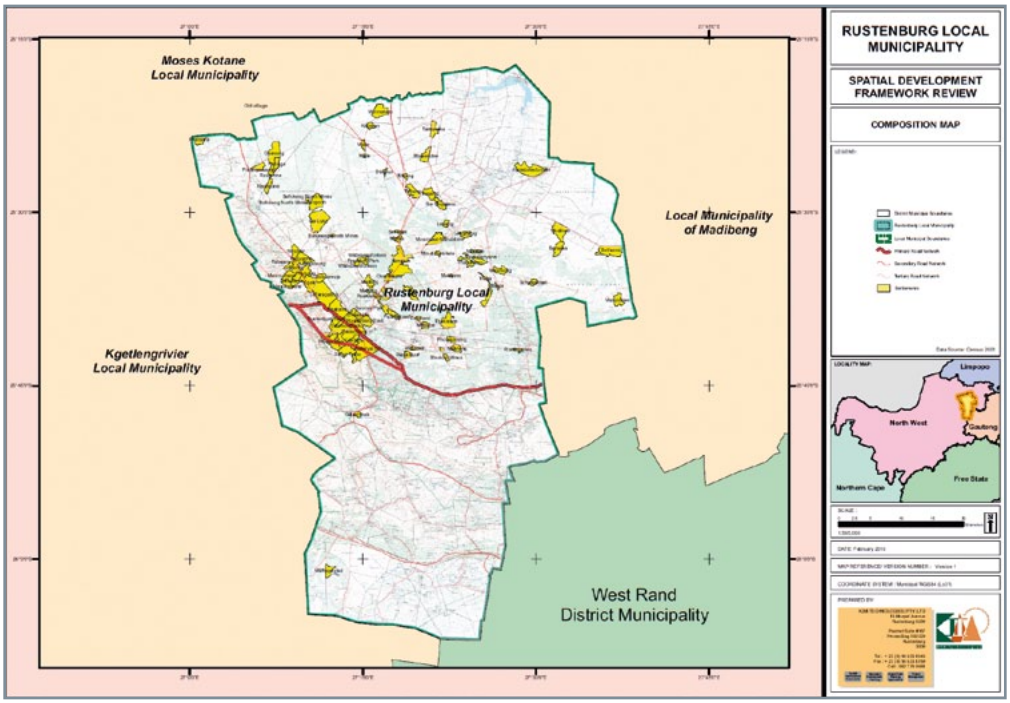
The sprawl on traditional land largely comprises informal settlement development near mining shafts (Rubin and Harrison, 2016) that followed changes in the labour and housing regimes for mineworkers. Shift work replaced migrant-labour practices and, despite migrant labour no longer being legally prescribed, a substantial number of lower-paid mineworkers continue to migrate. However, the transformation of compounds into single-unit accommodation, coupled with the introduction of living-out allowances, led to many people being displaced to informal structures on traditional land.

Key themes of the SDF

- Achieving integrated spatial development that is supported by the required bulk infrastructure development
- Integrating land utilisation and transport development.
- Creating sustainable settlements by providing access to appropriate housing and social amenities
- Developing a spatial logic that guides private sector investment
- Establishing priorities for public sector development and investments

The SDF promotes higher densities (to ensure efficient provision of bulk and internal services) and ways to reduce sprawl and travel time (advocating investment in an integrated rapid public transport system for Rustenburg). Such a system would benefit in particular residents of Phokeng and Boitekong who currently have to take at least two taxis and travel for between 45 and 60 minutes to get to work or the shopping malls. The plan features improving public transport and mixing the modes of transport, mixed-income developments and sustainability.

However, the SDF makes little reference to safe and resilient settlements, or to shifting jobs to high-density township areas. Overall, little emphasis is given to using planning tools in the implementation of the SDF. The municipality also lacks the necessary human and financial capacity to formulate concrete and viable plans for attaining the identified spatial and economic opportunities, and to implement development projects.



MAIN URBAN CENTRE: RUSTENBURG (established 1851)

Rustenburg Local Municipality

THE ECONOMY

Economic growth per annum

2001–2015

3.1%

-1.6%

2011–2015

Main economic function

Platinum mining, originally a regional service centre

Economic drivers

- Mining (in decline and downscaling)
- Motor-vehicle manufacturing (hard hit by 2008 financial meltdown)

THE MUNICIPALITY

Governing party

ANC

Size of municipal area

3423 km²

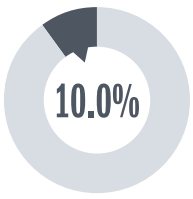
Municipal expenditure (approx.)

R3.5-billion per annum

No. of employees

4000

Property taxes as % of own income



Audit outcomes

2014	2015	2016
Qualified	Unqualified with findings	Not available

HOUSEHOLD INFRASTRUCTURE ACCESS (2011)

Households with indoor water	Households with flush toilets	Households with electricity	Households living in informal structures
35.8%	57.5%	83.0%	31.5%

SPATIAL CHANGE

Total population

620 000

of which 68% live in urban areas

Population growth (1996–2011)

76.3%

3.6% per annum (2001–2011)

Total size of dense settlements (urban)

16 784 ha

Urban land growth (1990–2014)

35.3%

SPATIAL TRANSFORMATION CHALLENGES

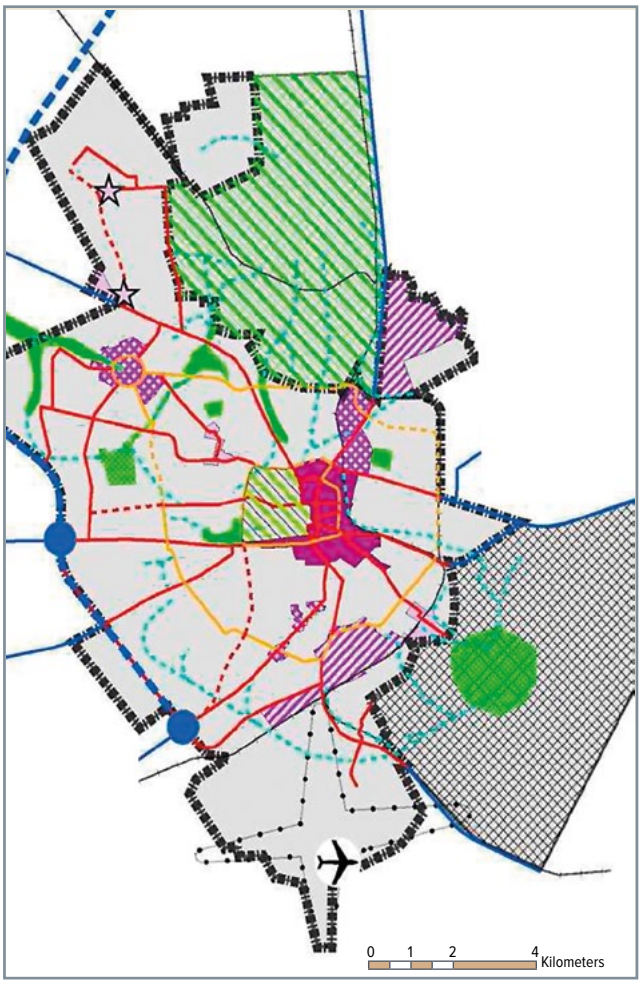
Impact of growth and decline in the platinum industry

- Lack of densification and mixed-use developments
- Uncontrolled development within and beyond the urban edge
- Spatially fragmented development (the municipality does not own much of the land where new developments are happening)

> "PLANS ARE DEVELOPED LARGELY WITHOUT POTENTIAL INVESTOR INPUT WHILE INVESTMENT IN NEW DEVELOPMENTS HAPPENS TO BE BASED LARGELY ON MARKET FORCES THAT ARE NOT NECESSARILY ALIGNED WITH MUNICIPAL PLANS."

Sol Plaatje

Kimberley's origins are closely associated with diamond mining, with the discovery of diamonds at the Colesberg Kopje in 1871. Established in 1888, De Beers was for a long time the world's largest mining company and had its head office at 27 Stockdale Street, Kimberly until the mid-1990s. By mid-2015, De Beers had sold all its mining rights in Kimberley to Petra Mining. Mining still contributes about 10% of GVA, the lowest percentage since the founding of the city. Kimberley also had the first examples of enclosed settlements for black workers, which became the prototype for the design of the compound system in the rest of South Africa (Phirie, 1991). In 2001, the Municipality was renamed the Sol Plaatje Local Municipality, in honour of one of the founding members of the African National Congress. During apartheid, Galeshewe was created for black residents (named after Kgosi Galeshewe of the Tlhaping community), while Homevale and Roodepan were created for coloured residents. Sol Plaatje is located on the eastern boundary of the Northern Cape and is on the N8, which links Kimberley with Mangaung and Lesotho.



The spatial planning in the city needs to take into account several mine dumps, as well as the land adjacent to the mine dumps that is owned by the mining companies.

Key themes of the SDF

- A precinct focus
- Focusing on releasing existing municipal land in line with the SDF
- Ensuring that the SDF receives adequate budgets
- Developing an infrastructure master plan
- Revitalising the inner city

The SDF makes provision for reducing travel time (through a ring-road system designed to ease inner-city traffic and enhance access to the city from the suburbs), increasing urban densities (especially in the CBD) and introducing some form of BRT system. Other plans include reducing sprawl, improving transport systems, shifting jobs to high-density townships and ensuring mixed-income developments.

However, the plan does not make enough reference to integrating different transport modes or to ensuring safe and resilient settlements, and pays only lip service to sustainability. Infrastructure development is planned through the provision of bulk services, with a strong focus on residential development at the lower end of the market. Most of the social infrastructure has been applied in response to emergencies rather than proactively, and tends to serve immediate political aims such as elections.

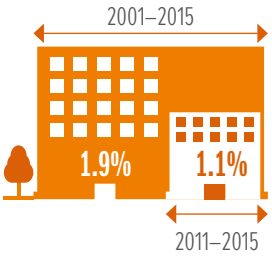
The SDF seems to overemphasise control and planning, with strict measures to enforce compliance with all the legal requirements. Yet other tiers of government do not adhere to the vision and these plans. For example, a new provincial hospital was developed on land owned by the national government regardless of the lack of bulk services.

Development control measures are used, but the approach is "compliance and plan alignment" rather than inviting participation and investment, and no development incentives are offered. Incentives in the form of tax breaks may succeed in luring private investors to develop and invest in the desired locations, as would less cumbersome rezoning processes and costs.

MAIN URBAN CENTRE: KIMBERLEY (established 1871)

THE ECONOMY

Economic growth per annum



Main economic function

Historically diamond mining, currently provincial capital

Economic drivers

- Capital city of Northern Cape Province
- Two new universities
- Tourism (the Big Hole recently upgraded by De Beers)

THE MUNICIPALITY

Governing party

ANC

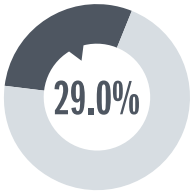
Size of municipal area

Municipal expenditure (approx.)

R1.7-billion per annum

No. of employees

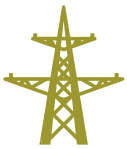
Property taxes as % of own income



Audit outcomes

2014	2015	2016
Qualified	Unqualified with findings	Unqualified with findings

HOUSEHOLD INFRASTRUCTURE ACCESS (2011)

Households with indoor water	Households with flush toilets	Households with electricity	Households living in informal structures
			
61.9%	84.8%	84.9%	17.2%

SPATIAL CHANGE

Total population

of which 99% live in urban areas

Population growth (1996–2011)

2.1% per annum (2001–2011)

Total size of dense settlements (urban)

Urban land growth (1990–2014)

SPATIAL TRANSFORMATION CHALLENGES

Long-term consequences of diamond mining

- Interspersed vacant mine-owned land fragmenting the city (similar to Matjhabeng)
- Fragmented nature of city makes providing bulk services difficult and expensive
- Lack of capacity in the municipality and councils
- Lack of planning capacity and coordination

Stellenbosch

> "This case study revealed a surprising lack of awareness and lack of application of the IUDF as a policy to drive spatial transformation."

The origins of Stellenbosch date back to the latter part of the 1600s, when colonial settlers established the town. For a long time, the coloured population formed an integral part of the community and were prominent landowners in central Stellenbosch (today largely owned by the University of Stellenbosch). Only in the early 1970s did the apartheid government manage to remove the coloured population forcibly from central Stellenbosch to Cloetesville (Gilliomee, 2007). Kayamandi was created for the blacks. The presence of Stellenbosch University has enabled the town to develop a position in the South African knowledge economy. Stellenbosch is also home to several South African (mostly Afrikaner) entrepreneurs and has substantially more head offices than one would expect to find in a city of this size (Adendorf and Donaldson, 2012). Located within 50 km of the Cape Town metro, Stellenbosch is close to the N1 and N2 and has good access to Cape Town International Airport.

The town's substantial densification is mainly due to the increase in student numbers. While the municipality attempts to manage the urban edge urban sprawl is evident, in the form of both high-income gated developments and informal housing structures.

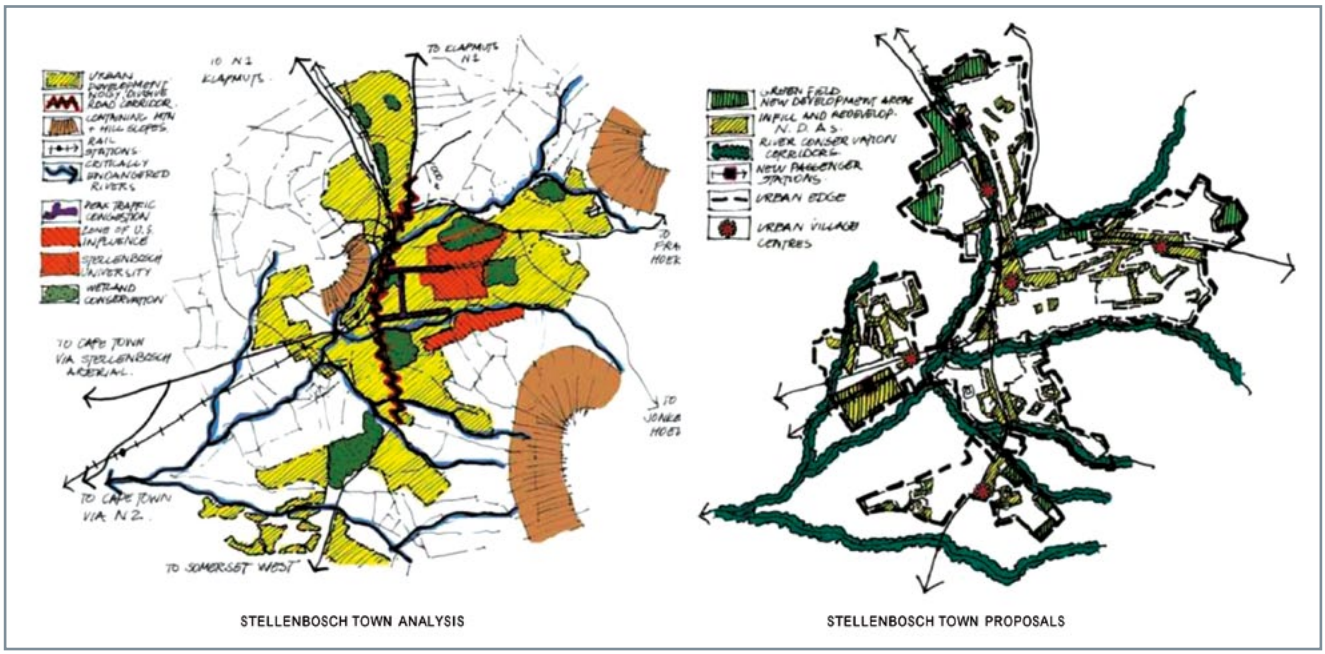
The SDF is developed within the context of the economy, tourism, infrastructure and Stellenbosch University. The protection of Stellenbosh's cultural heritage is particularly high on the agenda and is being successfully pursued.

Key themes of the SDF

- Interconnected nodes
- Safe and sustainable transport
- Inclusive economic growth
- Optimal land use
- Resource custodianship
- Food and agriculture
- Heritage

The SDF emphasises the importance of the urban edge, higher densities, preventing urban sprawl, improving public transport and resource custodianship. Less emphasis is placed on coordinating transport modes, shifting jobs to high-density township areas and ensuring safe settlements. Planning tools used include protecting the urban edge, identifying new development areas, river conservation corridors, urban agriculture areas, traffic calming and pedestrian safety, and developing scenic routes.

Despite being fairly well-articulated, the SDF lacks a clear implementation plan and proposals with sufficient scale and level of detail. There is a surprising lack of awareness of the IUDF as a policy to drive spatial transformation; in fact, spatial transformation is not a central theme. The implementation of the SDF seems to have created few opportunities for middle- and lower-end income households to afford property in Stellenbosch.



STELLENBOSCH TOWN ANALYSIS

STELLENBOSCH TOWN PROPOSALS

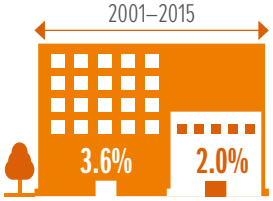
MAIN URBAN CENTRE: STELLENBOSCH (established late 1600s)

STELLENBOSCH
STELLENBOSCH • PNIEL • FRANSCHHOEK
MUNISIPALITEIT • UMASIPALA • MUNICIPALITY
INNOVATION CAPITAL
ISIXEKO ESIZA NENGUQU
INNOVASIESTAD

THE ECONOMY

Economic growth per annum

2001–2015



2011–2015

Main economic function

Regional service centre, university city

Economic drivers

- Part of Cape Town functional economy
- Heritage
- Agricultural economy and associated industries (manufacturing and tourism)
- Economy associated with Stellenbosch University (students, innovation projects)

THE MUNICIPALITY

Governing party

DA

Size of municipal area

831 km²

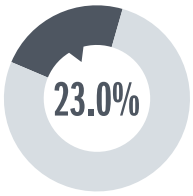
Municipal expenditure (approx.)

R1.25-billion per annum

No. of employees

1200

Property taxes as % of own income



Audit outcomes

2014	2015	2016
Unqualified with findings	Clean	Clean

HOUSEHOLD INFRASTRUCTURE ACCESS (2011)

Households with indoor water	Households with flush toilets	Households with electricity	Households living in informal structures
72.4%	91.7%	92.9%	22.9%

SPATIAL CHANGE

Total population

175 000

of which **91%** live in urban areas

Population growth (1996–2011)

49.7%

2.8% per annum (2001–2011)

Total size of dense settlements (urban)

2 810 ha

Urban land growth (1990–2014)

5.7%

SPATIAL TRANSFORMATION CHALLENGES

Low-income sprawl and lack of inclusivity

- Balancing the need for new development with maintaining the unique rural and historical heritage character
- Managing the growth associated with increased student numbers at Stellenbosch University
- Protection and conservation of key natural resources , eco-systems and public open spaces
- Expanding the capacity of bulk infrastructure to accommodate new developments
- The lack of a broad mis of housing types close to economic opportunities

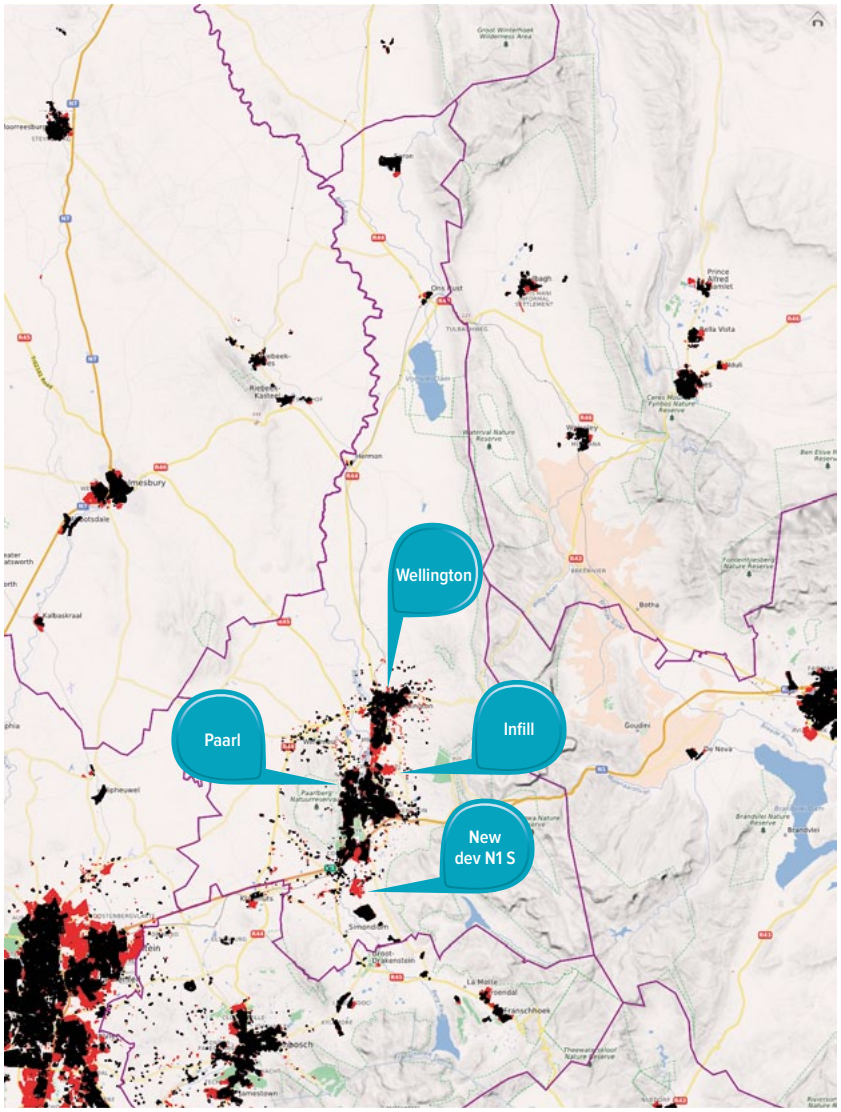
PART 3

Understanding Spatial Change in Intermediate Cities

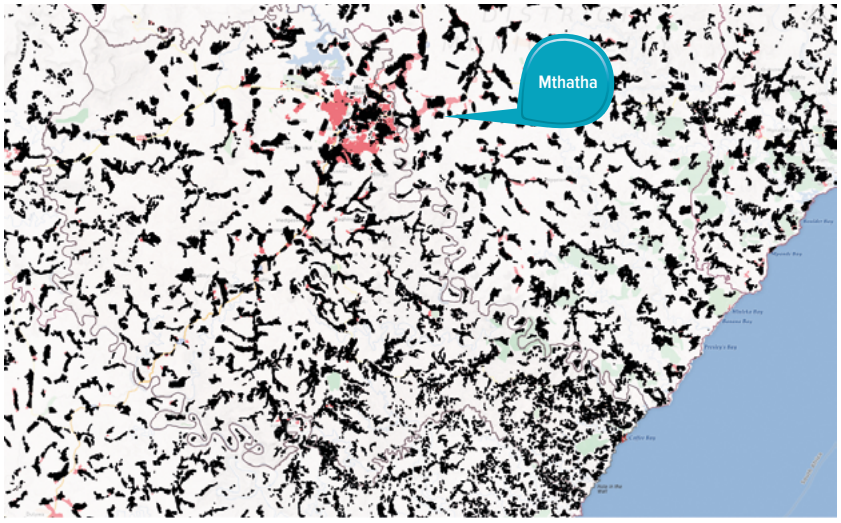
Central to a new vision for urban space is preventing sprawl and improving densities. Achieving this requires understanding the nature of spatial change. Spatial marginalisation, the legacy of apartheid planning, continues to be a feature of urban centres in South Africa, including intermediate cities. For instance, in Mbombela and Lephalale, people are still settling "behind the homeland boundaries", far from the main urban areas, which means that communities remain dislocated from the main economies. After presenting the spatial reality of the 11 case studies, this section explores the factors that contribute to spatial change and sprawl within intermediate cities.

The urban spatial change reality (the "what is")

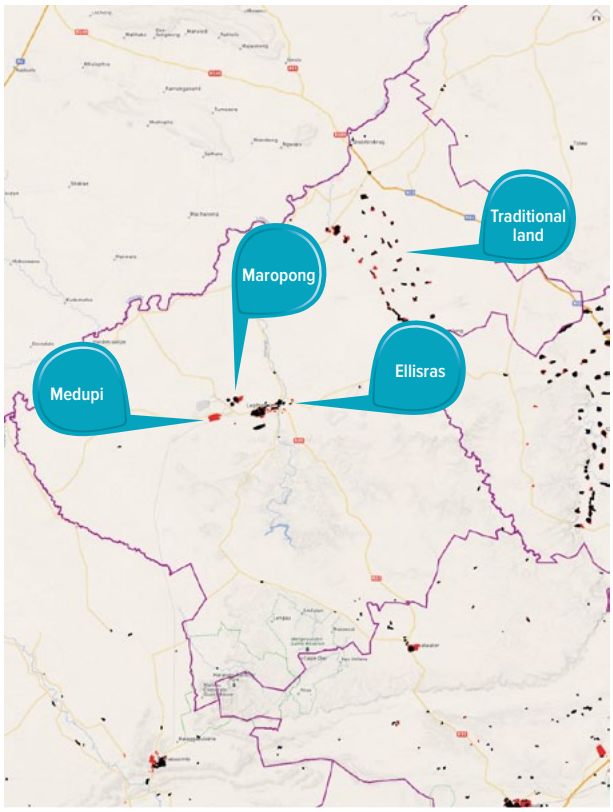
The reality of urban spatial change is revealed through comparing settlement patterns in 1990 with those in 2014. In Maps 1–11, the 1990 settlement patterns are in black, while the settlements established between 1990 and 2014 are in red.



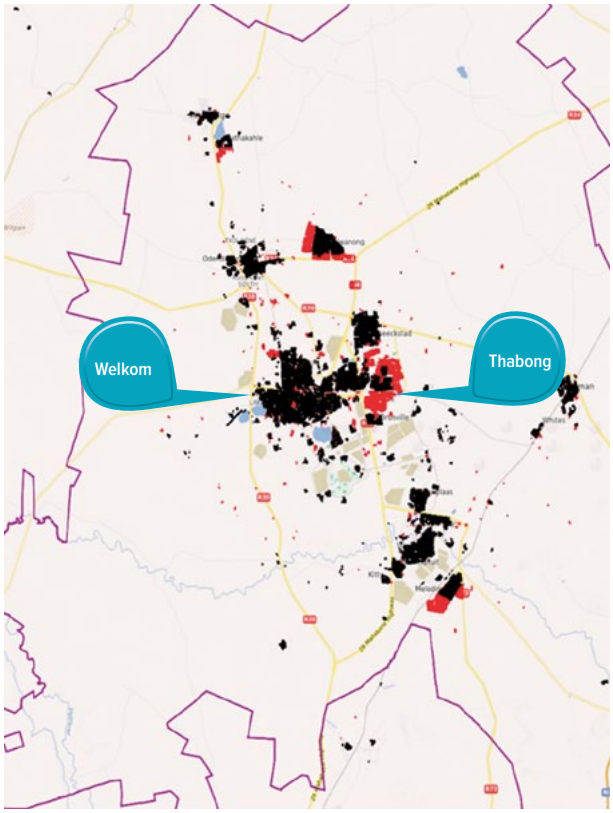
Map 1: Drakenstein settlement patterns (1990–2014)



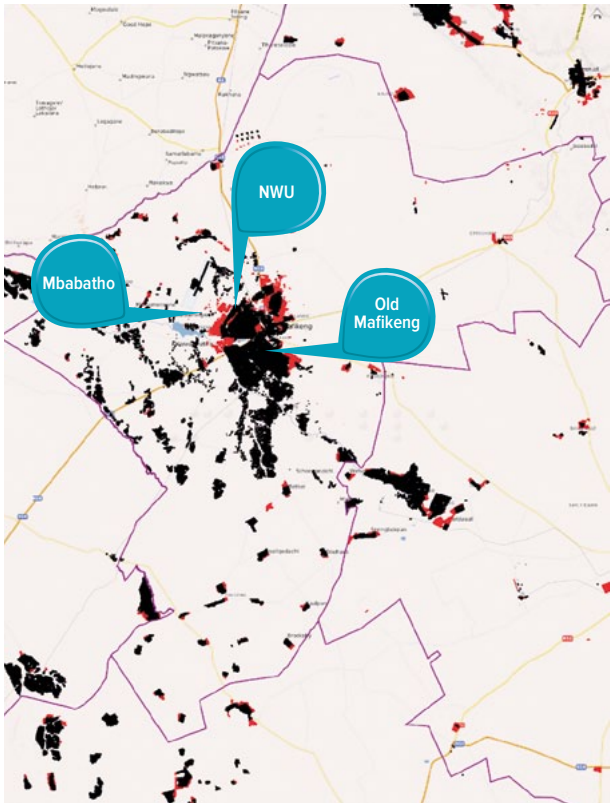
Map 2: King Sabata Dalindyebo settlement patterns (1990–2014)



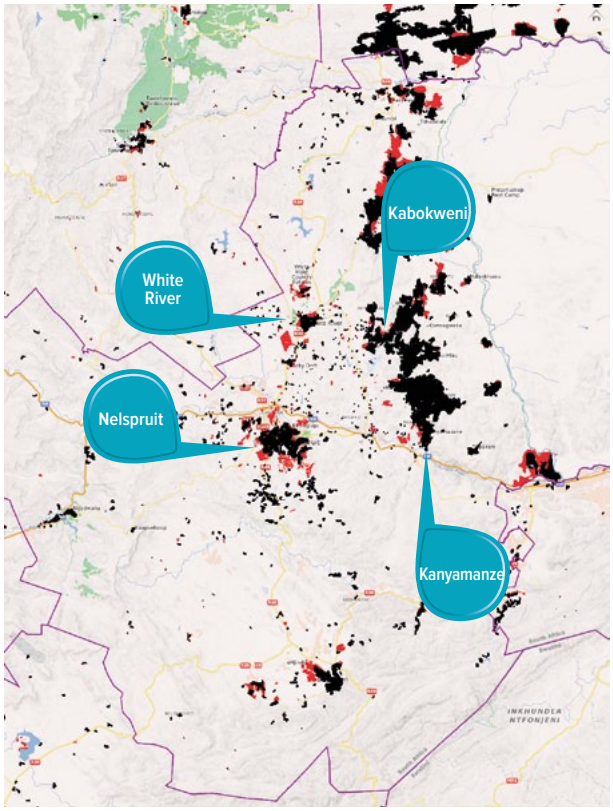
Map 3: Lephalale settlement patterns (1990–2014)



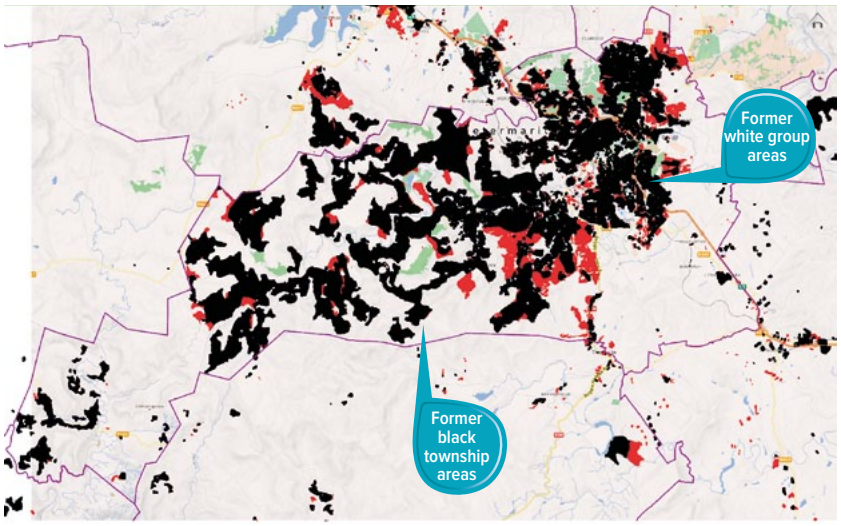
Map 4: Matjhabeng settlement patterns (1990–2014)



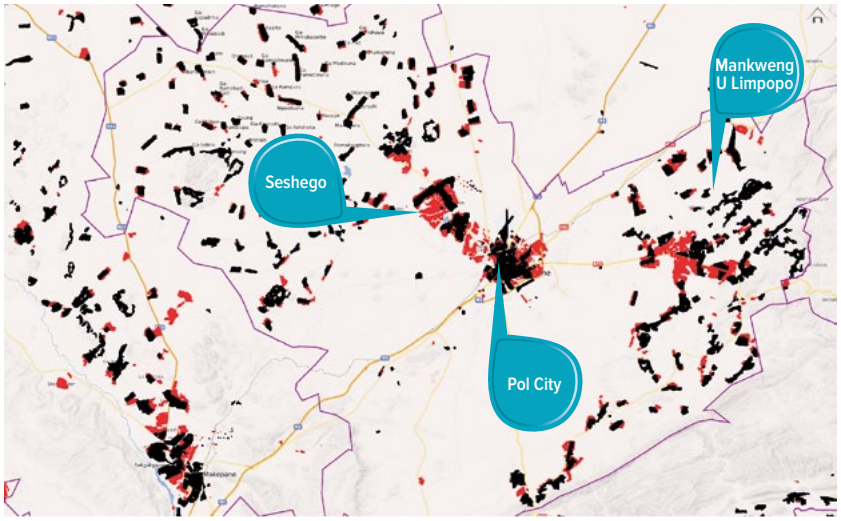
Map 5: Mahikeng settlement patterns (1990–2014)



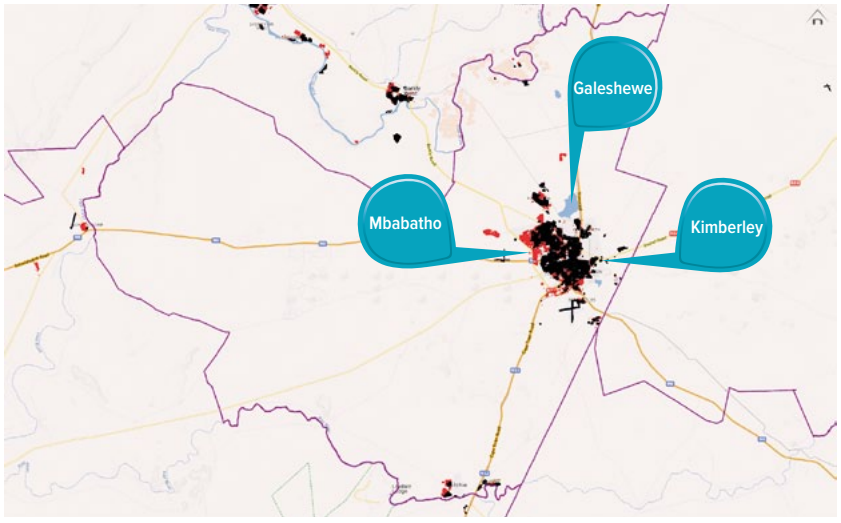
Map 6: Mbombela settlement patterns (1990–2014)



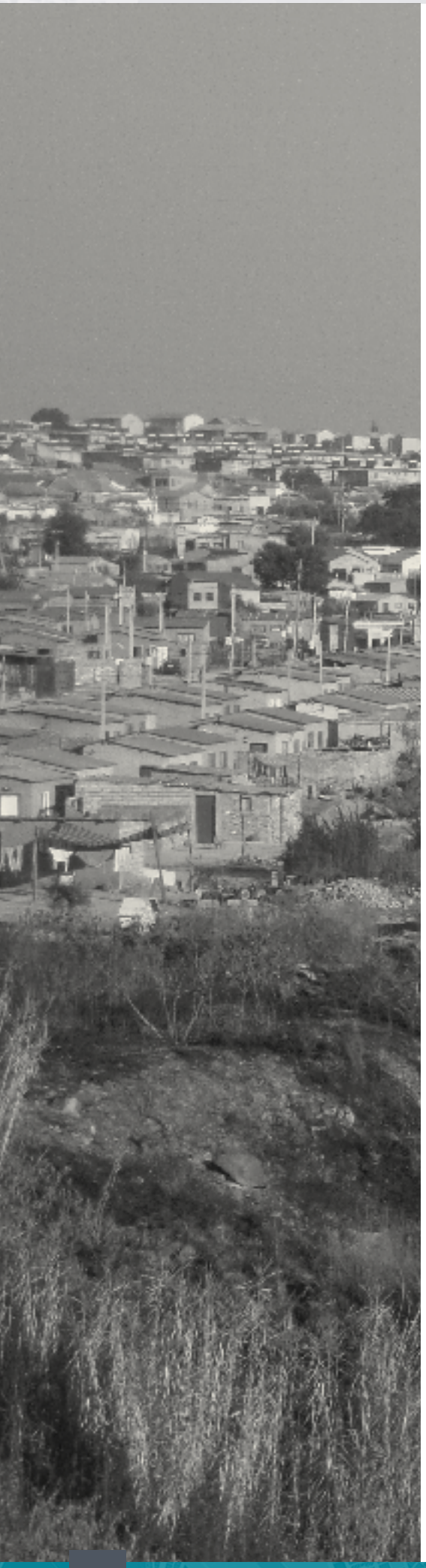
Map 7: Msunduzi settlement patterns (1990–2014)

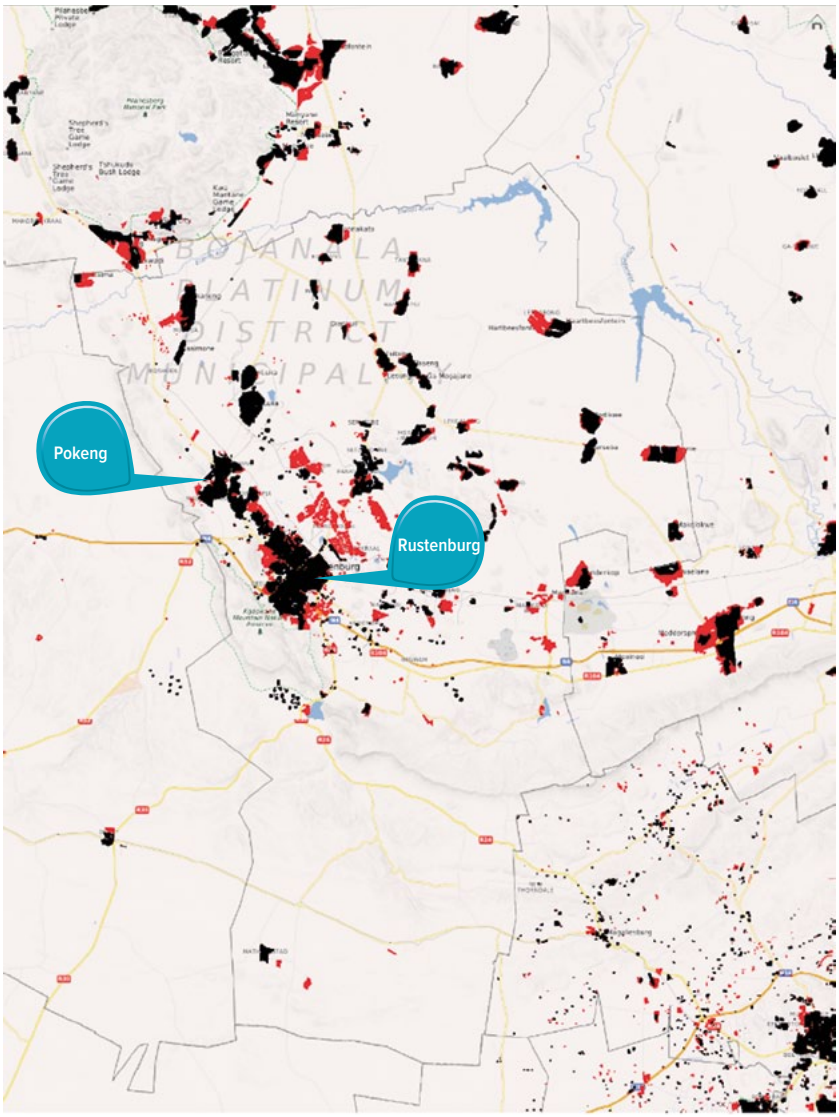


Map 8: Polokwane settlement patterns (1990–2014)

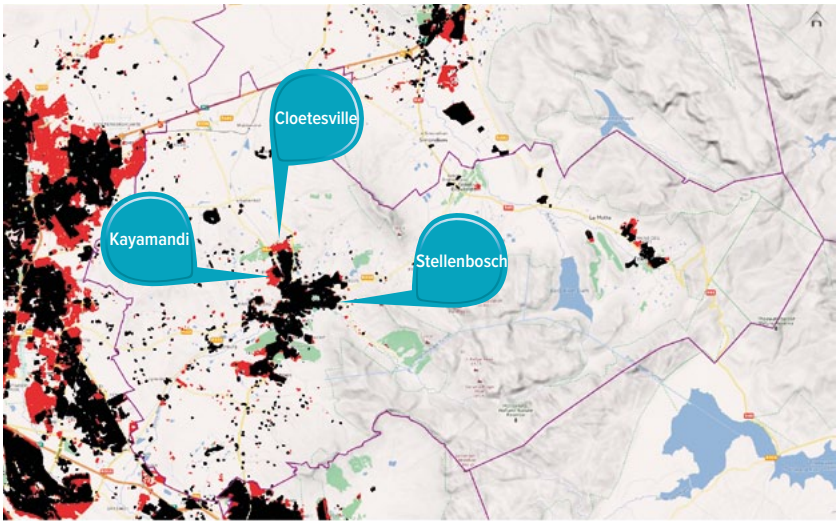


Map 9: Sol Plaatje settlement patterns (1990–2014)





Map 10: Rustenburg settlement patterns (1990–2014)

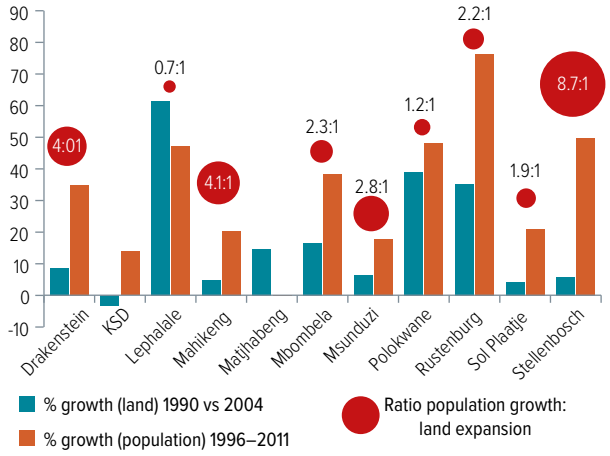


Map 11: Stellenbosch settlement patterns (1990–2014)

Sprawl and densification

Figure 2 presents the data from the maps as the growth in land area (measured in hectares) between 1990 and 2014 compared to the growth in population between 1996 and 2011, to produce a ratio of population growth:land expansion for each city. While this methodology is not the only means of measuring spatial change, the maps and figures provide a clear picture of the outcomes of spatial changes since the early 1990s.

Figure 2: Sprawl and densification in the 11 intermediate cities



- All the cities (except for KSD) cover a larger geographical area in 2014 than in 1990, which is an indication of urban sprawl.
- Urban densities increased in nine of the 11 cities, as the growth in population outstripped the growth in settlement land. Stellenbosch had the largest increase (8.7:1), followed by Sol Plaatje (4.9:1), Drakenstein (4:01) and Mahikeng (4.1:1).
- Urban sprawl increased in Lephalale and Matjhabeng, as urban-settlement growth outstripped population growth. The urban sprawl is driven by the decline of mining (after losing their jobs, mineworkers settled in informal settlements), the changing housing arrangements (such as living-out allowances) and the development of low-income housing by government (for example the Strategy for the Revitalisation of Distressed Mining Areas).

High-income vs. low-income sprawl

Cities can suffer from high-income and low-income sprawl, as shown in the maps. High-income sprawl is often in the form of gated communities and is apparent in Drakenstein (Map 1, south of N1), in parts of Msunduzi, and in Polokwane, Stellenbosch and Rustenburg (Maps 8, 10 and 11). This type of sprawl results in increased travel time and cost for low-income workers working in these areas.

Low-income sprawl also occurs in most of the case-study areas, even those with a negative (Matjhabeng) or low population growth (KSD experienced a decline in overall settlement space but a substantial growth in land near Mthatha – Map 2). Low-income sprawl is a feature of Mahikeng, Msunduzi, Polokwane and Stellenbosch (Maps 5, 7, 9 and 10). It is driven by informal land invasions, the government's low-income housing programme, the Strategy on the Revitalisation of Distressed Mining Areas (that focuses on delivering houses) and the presence of traditional land.

Spatial infilling and racial desegregation

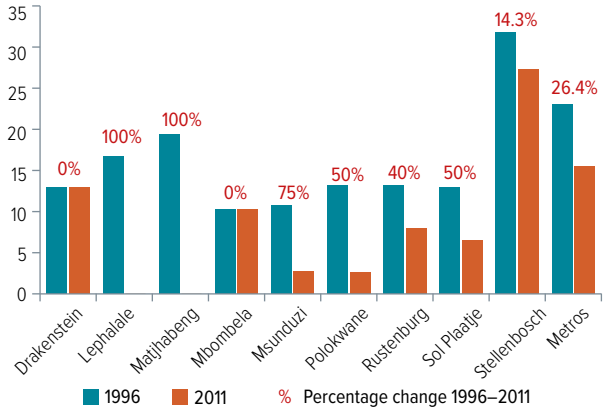
Examples of infill development can be found in the former black townships of Paarl and Wellington (Drakenstein), as well as in Rustenburg and Matjhabeng (more specifically between Odendaalsrus and Khutlwanong). The infill between Seshego and Polokwane City is the best example of filling the buffer strips between former black townships and the former white suburbs (SACN, 2016a).

Previous research alludes to racial desegregation in Polokwane (Donaldson and Kotze, 2006) and Matjhabeng (Marais, 2013). As part of the research, respondents from metropolitan municipalities and intermediate cities were asked which planning tool or planning approach had assisted in bringing about spatial transformation. In response, the metros highlighted the role of bus rapid transit (BRT) systems, while the intermediate cities pointed to the importance of racial desegregation through spatial infilling. In general, the black middle class can find well-located housing units more easily in intermediate cities than in metropolitan areas.

Changes in racial desegregation were measured by comparing the percentage of wards with 50% of its population classified as white in 1996 and in 2001. As Figure 3 shows, residential desegregation is substantially higher in intermediate cities than in the metropolitan areas of South Africa. While lower than average house prices in intermediate cities were likely responsible for this pattern, city cultures and environments on their own could facilitate or inhibit these processes. Racial desegregation is a powerful tool of spatial transformation in many intermediate cities. It makes it easier for a substantial portion of the population to access job opportunities, businesses and social amenities such as

schools and medical facilities. Furthermore, it provides the foundation for the development of a non-racial middle class.

Figure 3: Wards with more than 50% of people classified as white (1996 and 2011)



Note: *No data available for KSD and Mahikeng*

The unintended consequences of mining

> "The mines probably hold as much power over the spatial form of the municipality as the officials and the councillors do."

Mining plays a major role in spatial change, and the relationship between mining and urban sprawl is complex: in some cases (Lephalale and Rustenburg), planning struggles to keep up with the mineworker influx, while in others (Mathjabeng) the decline in mining results in sprawl.

Some impacts are a direct result of mining activities. During the growth phase of mining, new housing and land are required to accommodate increased numbers of mineworkers (e.g. Lephalale). However, as municipalities are unable to plan for this increase, the result is often the development of informal settlements. Then, when mining is in decline, the presence of old mine dumps and mine-owned land virtually precludes infill development and compactness necessary to achieve higher densities (e.g. Sol Plaatje and Matjhabeng).

Other impacts are more indirect and the consequence of changes in the labour regime or in mine housing policies.

The changing labour regime in the mining industry

Over the past 25 years, two changes have had consequences for local authorities and spatial change.

- The move to shift work, which has led to longer shifts, 24-hour production cycles and longer periods off (a four-day work week and then three days off is not an uncommon arrangement). Ironically, shift work and longer time off have supported the continued use of migrant labour, despite it not being legally enforced anymore. These migrant labourers are largely rock-drillers (in the platinum and gold mines). Migrant labour is more prominent among lower-paid underground workers (Matjhabeng and Rustenburg) than among those working in open-shaft, mechanised mine settings (Lephalale).
- Outsourcing, which means that contractors and not the mining companies are responsible for workers. In South Africa, outsourcing accounts for nearly 30% of the workforce in some mines and has led to lower salaries for contract workers,

fewer workplace benefits and lower levels of union membership (Burger and Geldenhuys, 2018). The result is that contract workers often live in informal settlements that create the sprawl (e.g. Rustenburg and Lephalale).

Changes in mine housing policies

These changes have contributed to the sprawl in three of the four mining cities studied. Historically, black mineworkers were housed in compounds. Although compound living is inhumane and associated with institutionalised migrant labour, it is also a form of high-density living. When the compounds were dismantled, through conversion to single or family units or demolition, large numbers of people had to find housing elsewhere, usually in informal settlements, which contributed to urban sprawl. In Rustenburg, the sprawl on traditional land largely comprises informal settlement development near mining shafts (Rubin and Harrison, 2016). At the same time, living-out allowances became more widespread, further increasing informal settlement development.

National and provincial policies

The emphasis on housing in the Strategy on the Revitalisation of Distressed Mining Towns and the provision of government-subsidised housing, through the Housing Subsidy Programme, has created some of the sprawl in these settlements (Matjhabeng, Stellenbosch and Msunduzi) but has also contributed to the infill development (between Seshego and Polokwane City). In Sol Plaatje, the provincial government's role in land development has brought increased pressure to bear on the municipality's ability to provide bulk infrastructure.

Social and labour plans

When mines expand or start up, some form of urban expansion is required. However, despite substantial changes in mining legislation and practice, seldom do the authorities or the mines consider the long-term liabilities associated with mine development. For example, what happens when the mine closes? Who will be responsible for the long-term maintenance? Can the infrastructure be closed down? Sol Plaatje and Matjhabeng are two examples of how vacant mine-owned land fragments the urban space and hampers long-term spatial planning.

In 2002, the promulgation of the Mineral and Petroleum Resource Act changed the mining rights regime in South Africa but also emphasised the importance of local development. Social and labour plans were intended to perform two roles:

- To ensure collaborative planning.
- To generate appropriate local investment (outside mining) and to be linked to municipalities' integrated development planning (strategic planning).

Yet there are only a few examples of collaborative planning and very little evidence that social and labour plans have contributed positively to either development or spatial transformation in intermediate cities where mining dominates. Exacerbating the problem is the fact that social and labour plans are part of contracts and therefore not public documents.

Nevertheless, the dovetailing of social and labour plans and integrated development plans could be an important instrument for dealing with the spatial consequences of mining.

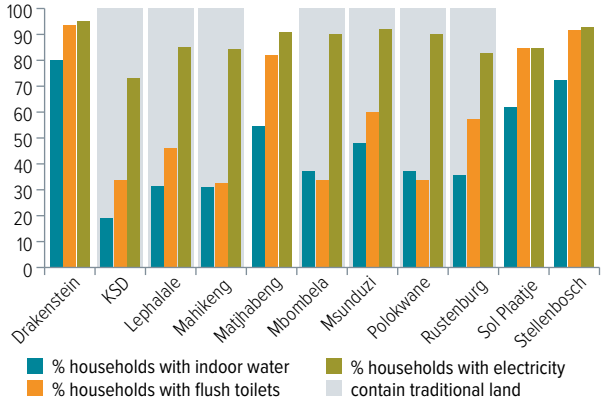
The dominance of traditional authorities

Intermediate cities are not the only places to contain land that falls under the jurisdiction of traditional authorities. However, they are often unable to bridge the power relations associated with tribal land, and an urban bias tends to dominate councils and conceptual thinking.

Seven of the 11 cities (KSD, Lephalale, Mbombela, Mahikeng, Msunduzi, Polokwane and Rustenburg) contain traditional land, which is a driver of sprawl in most cases, although Mahikeng is an example of higher densities occurring on traditional land. In Rustenburg, the sprawl is closely associated with mine development, while large-scale sprawl is found on land adjacent to Mthatha (KSD) and in the rural villages surrounding Polokwane. In Mahikeng and KSD, the limited urban land available has led to middle-income and higher-income households moving to traditional land. Other reasons for these households settling on traditional land include development embargoes in other areas of the cities and the avoidance of paying municipal property tax.

An important component of spatial transformation is that of providing services to areas historically excluded as a result of the racial planning principles of apartheid. However, traditional land also inhibits access to basic services – in Mahikeng there is no service delivery on traditional land. Those municipalities with large chunks of traditionally owned land have the highest service-level backlogs. And where municipal services are provided on traditional land (e.g. Polokwane), it is often to the detriment of municipal finances.

Figure 4: Sanitation and electricity services (2011)



As Figure 4 illustrates, intermediate cities with large urban populations have much better access to services. The correlation between the percentages of urban land in a municipality and the percentage of people with flush toilets is 0.93 at a 0.1 confidence level. This shows that providing services on traditional land is difficult and usually rudimentary when it does occur.

Responding to the issue of traditional land

In some cities, traditional land acts as a safety net for low-income households, while in other cities (e.g. Mahikeng and KSD), traditional land is home to substantial numbers of middle-class people living on large tracts of functionally urban areas. For the sake of these intermediate cities, the issue of traditional land requires appropriate national and local responses. What is absent from existing plans is a municipal articulation of the long-term consequences of the existing tenure arrangements on land under traditional rule or the long-term consequences should these areas of land be formalised.

The power of capital

Power is most often apparent in the tension between land developers and municipalities, especially in Drakenstein and Msunduzi. Part of the problem is the pressure on municipal finances, which in many intermediate cities are often not sufficiently sound to stand up to private capital and private interests. Often, new land developments that are not in alignment with the planning requirements in the SDF are used as a financial incentive to Council but without considering the long-term implications.

Other forms of power are also at play in these municipalities. Stellenbosch and Drakenstein have to contend with interest groups concerned with heritage, as well as rurality and protecting farm land. Although heritage and rural matters have economic value for society at large, in some cases, the power of these interests contributes to social and spatial exclusion.

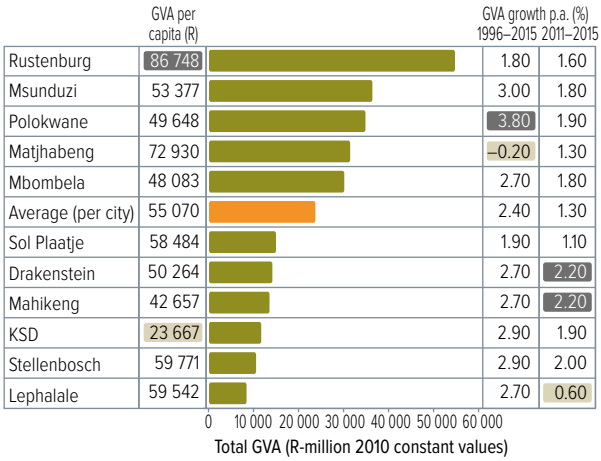
Ratepayers are another interest group that may influence spatial transformation both directly and indirectly. Directly, ratepayers are currently resisting models of more inclusive human-settlement development and, indirectly, financially struggling municipalities cannot risk losing income from their existing ratepayers (e.g. Msunduzi).

Other power dynamics, which have already been mentioned, play out between municipalities and tribal authorities and mining companies. As dominant drivers of the economy, mines outpower most municipalities, despite collaborative planning being prominent in the development of social and labour plans.

The vulnerability of economies

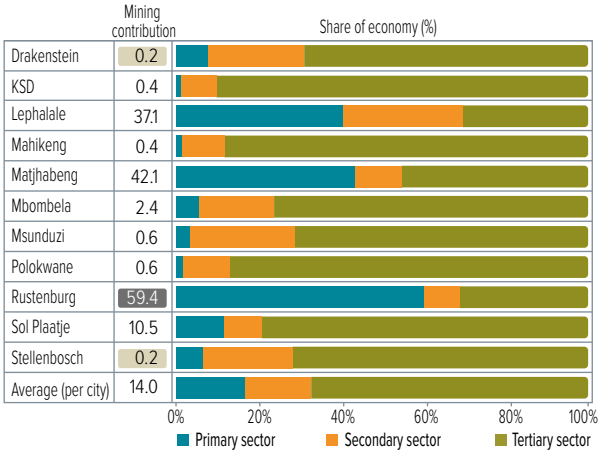
Municipal space is closely related to the municipal economy. Figures 5 and 6 confirm the vulnerability of intermediate cities in South Africa (Marais et al., 2016). Economic growth in intermediate cities is substantially lower than in the metropolitan areas (ibid), while the economic structure of many intermediate cities is often, either directly or indirectly, linked to the primary sector or a single sector.

Figure 5: Size of economy and economy growth (1996–2015)



- The dependence on a single sector, especially mining, is associated with economic vulnerability (e.g. Lephalale, Matjhabeng, Rustenburg, Sol Plaatjie).
- Being close to larger metropolitan areas reduces the vulnerability of intermediate cities (e.g. Drakenstein and Stellenbosch are within 50 km of Cape Town, while Msunduzi is 80 km from eThekwini).
- Being a provincial capital also reduces economic vulnerability: Mahikeng, Mbombela, and Polokwane are all provincial capitals, while historically KSD enjoyed capital status in the former Transkei.

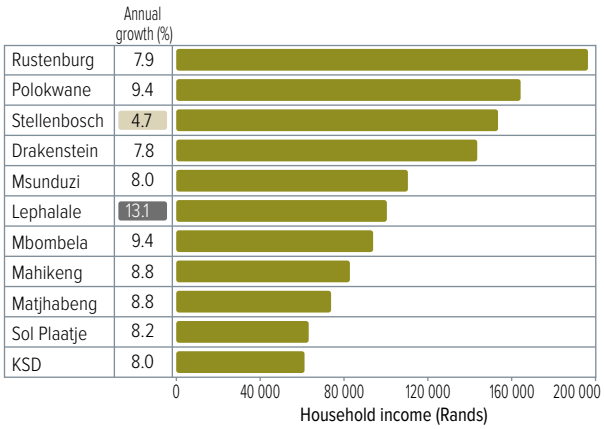
Figure 6: Structure of economy (2015)



- Mining contributes more than 10% to the economy of four intermediate cities: Rustenburg (59%), Matjhabeng (42%), Lephalale (37%) and Sol Plaatje (12%).
- Over the last 20 years (1996–2015), the growth rates of these four municipalities are the lowest and include the three cases of negative economic growth (Rustenburg, Matjhabeng and Lephalale).
- Lephalale and Rustenburg also had periods of very high growth rates, demonstrating the fact that high periods of economic growth followed by periods of decline are common in the mining-dependent cities.
- Lephalale may be the most vulnerable, as nearly 80% of its economy is associated with mining (coal) and electricity generation, and so the obvious long-term risk is cheaper alternative energy technology.
- Interestingly, despite having the lowest economic growth over the period 1996–2015, Matjhabeng and Rustenburg boast the highest per capita gross value add (GVA). Underlying this is the fact that gold and platinum are high-value goods, and so the inherent value of production remains high despite the overall decline.

The economic vulnerability of these cities is reflected in their household incomes and employment figures (figures 7 and 8).

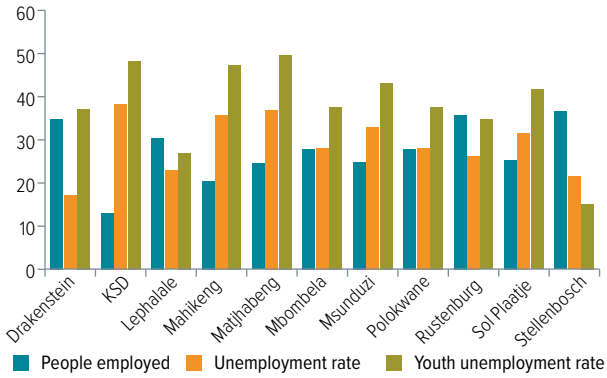
Figure 7: Annual household income (2011) and annual growth in household income (2011–2011)



- Over the period 2001–2011, household incomes in all of the intermediate cities except for Stellenbosch grew above the Consumer Price Index of 5.9% per annum.
- While Stellenbosch experienced lower growth in household income during this period, the city still had the third highest average household income. High student numbers contribute to this situation.

- Rustenburg has the highest household income, despite the vulnerability associated with mining. This is in part because of the substantial increases in salaries of mineworkers at the lower end (specifically rock drillers) over the past five years.

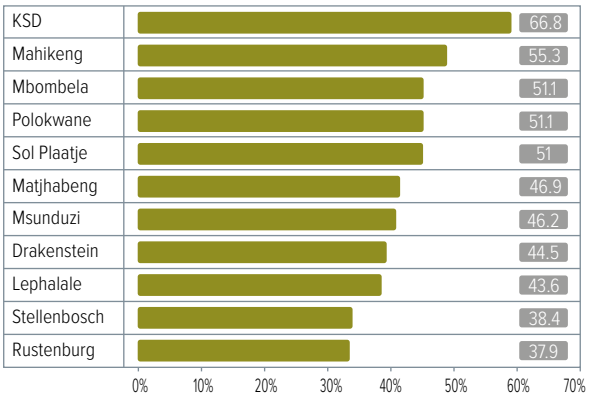
Figure 8: Employment, unemployment and youth unemployment (2011)



The highest percentage of people working were found in Drakenstein and Stellenbosch, which are both within 50 kms of Cape Town, while the largest unemployment and youth unemployment figures are in KSD and Matjhabeng.

The dependency ratio measures the size of the "dependent" population in relation to the economically active population who theoretically provide social and economic support. It is used to measure the pressure on the productive population and is a useful indicator of future economic and social health.

Figure 9: Dependency ratio (2011)



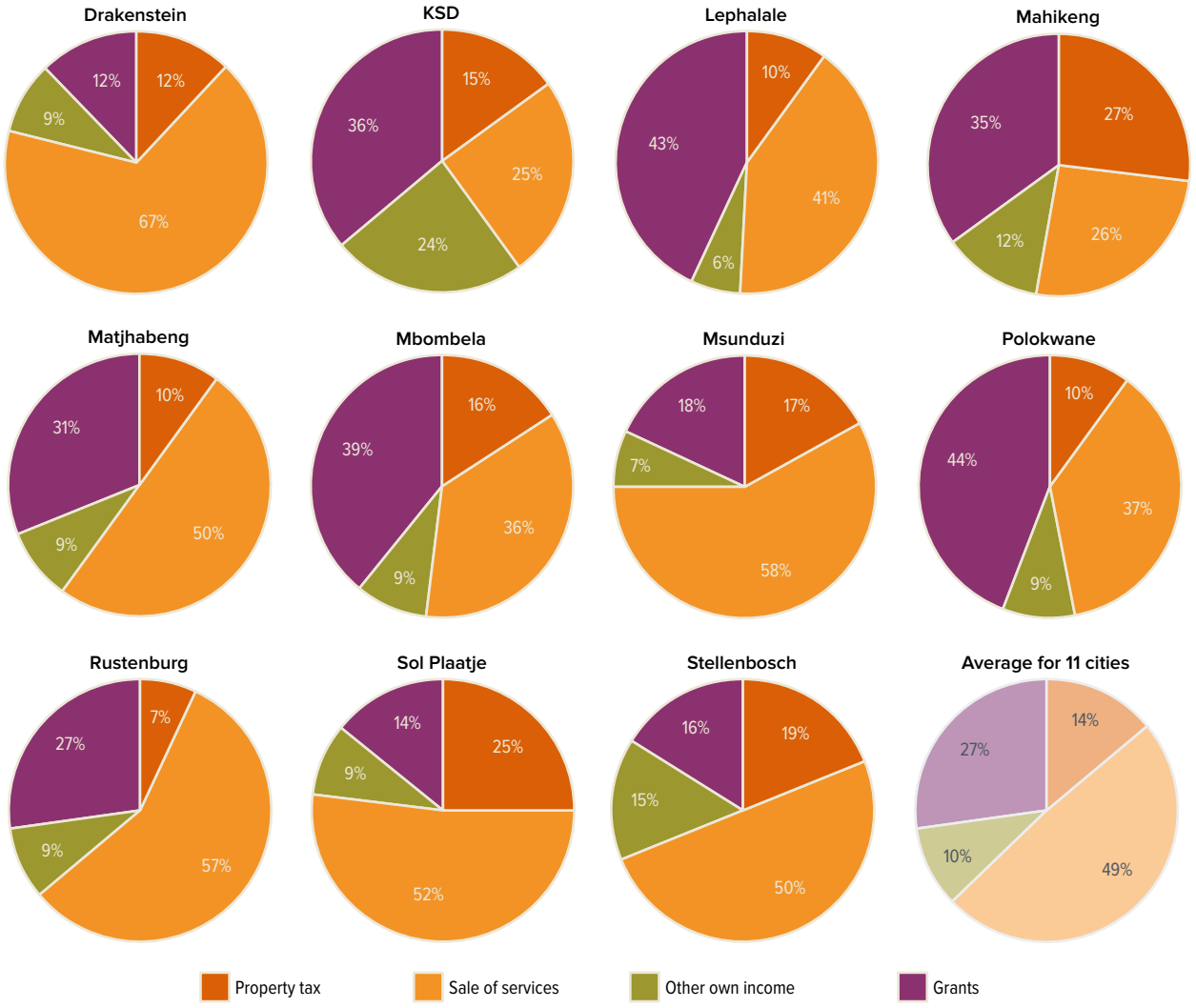
The low dependency ratios for Rustenburg and Stellenbosch is due to their fairly large migrant populations, of either students (Stellenbosch) or mineworkers (Rustenburg), which means that their dependency is located elsewhere. However, the spatial outcomes are very different in the two cities: in Stellenbosch, the urban edge is protected and students are housed in high-density housing, while in Rustenburg, the dismantling of compounds (high-density housing) has resulted in informal settlement sprawl on traditional land over which the municipality exercises very little control.

The influence of municipal finances

Municipal finances influence spatial change in various ways. For instance, struggling municipalities could be tempted to allow developments that fall outside the SDF, so that they can receive income (rates and taxes). Municipalities might also be more committed to spatial transformation if they invested municipal own revenues (if available) into spatial transformation projects.

Municipal finances in South Africa are derived from own income generated through property taxes, the selling of utility services and a range of other self-generated sources of income; intergovernmental grants, including the local government equitable grant and conditional grants; and finance raised in the debt market.

Figure 10: City income (2015/2016)



As Figure 10 shows, conditional grants constitute a fairly high proportion of the incomes of most intermediate cities. The exceptions are Msunduzi (18%), Stellenbosch (16%), Sol Plaatje (14%) and Drakenstein (12%). Perhaps an important point to consider here is the extent to which conditional grants, which constitute a fairly high proportion of the incomes, truly contribute to achieving spatial transformation and creating efficient and just cities. One example is that of the housing subsidy programme, which does not promote spatial transformation.

Table 3: Property tax income and urban-rural ratio

City	Total property tax (Rands)	Property tax as % of own income	Property tax levied per resident per annum (Rands)	Property tax: service fees ratio	Urban: rural ratio	Nature of rural land
Drakenstein	193 848 747	13.9%	692	1:5.5	85:15	Commercial agriculture
KSD	166 333 200	24.1%	339	1:1.6	35:65	Traditional land
Lephalale	41 948 076	18.4%	300	1:3.9	40:60	Commercial agriculture and traditional land
Mahikeng	142 189 789	42.0%	451	1:0.9	22:78	Traditional land
Matjhabeng	192 549 129	14.9%	448	1:4.9	98:2	Commercial agriculture
Mbombela	335 673 587	25.5%	537	1:2.3	28:72	Commercial agriculture and traditional land
Msunduzi	742 052 098	21.1%	1 091	1:3.3	75:25	Commercial agriculture and traditional land
Polokwane	256 187 487	18.3%	366	1:3.6	41:59	Commercial agriculture and traditional land
Rustenburg	264 534 000	9.8%	420	1:7.9	68:32	Commercial agriculture and traditional land
Sol Plaatje	484 397 277	28.9%	1 900	1:2.1	99:1	Commercial agriculture
Stellenbosch	270 378 662	22.8%	1 545	2:2.6	87:13	Commercial agriculture
Average	280 917 459	21.8%	735	1:3.4		

Although a more thorough assessment is called for, Table 3 suggests that much more can be done to improve property tax incomes.

- With the exception of Sol Plaatje, the property tax levied per resident for the three other mining cities (Lephalale, Matjhabeng and Rustenburg) is substantially lower than the average for the 11 case studies.
- The levying of property tax is negatively influenced by the fact that a high percentage of people reside on land managed by traditional authorities (for example, KSD).
- In general, cities with higher urban:rural ratios have higher municipal income.
- It also seems that, in some cases, this element of municipal finance is not properly managed. Cities like Drakenstein and Rustenburg would do well to improve their portion of own income derived from property tax.

Two aspects that indicate relatively poor municipal financial and income systems are municipal expenditure per capita and expenditure on maintenance. Low maintenance expenditure can also indicate cashflow problems.

Figure 11: Municipal expenditure (2015/16)

	Expenditure (R) per employee	Expenditure (R) per resident	Expenditure (%) on maintenance	Expenditure (%) on personnel
Msunduzi	858 784	6 243	3.6	22.2
Rustenburg	931 715	5 549	3.2	15.2
Matjhabeng	911 135	5 030	1.2	25.4
Mbombela	n.a.	3 382	8.7	24.6
Polokwane	681 200	2 413	7.1	20.0
Sol Plaatje	681 200	6 623	7.1	24.8
Drakenstein	852 844	5 779	4.5	25.5
Stellenbosch	1 068 934	7 166	4.4	29.3
KSD	509 750	2 073	1.3	30.6
Mahikeng	876 664	2 353	3.6	27.3
Lephalale	794 221	2 921	3.4	27.5

- Although Rustenburg has the highest household income, it only lies in the middle for municipal expenditure per capita.
- Most of the cities spend 4.5% or less of their budget on maintenance, which is far below National Treasury's recommendation to spend 8–10%. Only Mbombela falls within this range.
- Two cities spend less than 2% of their budget on maintenance: Matjhabeng (1.3%) and KSD (1.4%).

According to the National Treasury Circular 71, remuneration costs normally make up between 25% and 40% of operating expenditure, with the variation related to the capacity and function of the municipality (SACN, 2016c). All the intermediate cities studies fall within this range.

Finally, in only one instance (Polokwane) did a municipality contribute some of its own funding to capital investment. The use of own revenue to fund capital investment appears to be the exception rather than the rule, and yet municipalities that spend their own money are likely to be more responsive.

Clean audits are the exception: Of the 30 audit outcomes represented in Table 4, only six were clean or unqualified audits. Approximately 40% of the outcomes were either disclaimer or qualified audit outcomes. In two of the municipalities, audits had not been completed for the most recent financial year. However, the overall trends, show improvement.

Table 4: Audit outcomes (2014, 2015, 2016)

CITY	2014	2015	2016
Drakenstein	**clean**	**clean**	**clean**
KSD	Qualified	Qualified	Qualified
Lephalale	Unqualified with findings	Unqualified with findings	Unqualified with findings
Mahikeng	Qualified	Disclaimer	Disclaimer
Matjhabeng	Disclaimer	Disclaimer	not available
Mbombela	not available	not available	not available
Msunduzi	Unqualified with findings	**clean**	Qualified
Polokwane	Qualified	Unqualified with findings	Unqualified with findings
Rustenburg	Qualified	Unqualified with findings	not available
Sol Plaatje	Qualified	Unqualified with findings	Unqualified with findings
Stellenbosch	Unqualified with findings	**clean**	**clean**

PART 4

Spatial Development Frameworks

An assessment was made of the quality of the cities' SDFs and the extent to which they would contribute to realising spatial transformation.

Are the plans good and implementable?

Despite some concerns regarding the plans, the most serious problem is the overall buy-in by the council and the responsible officials. Outside consultants had compiled most of the municipal SDFs, which appeared in many cases have been drafted purely for the sake of compliance.

The quality issues were varied, but general concerns emerged related to their implementation. The case-study writers were asked to rate the implementation of each of the 70 SDF objectives as low, moderate or high. Just over 10% (8 objectives) were rated "high", 45% were rated "low". The top reasons put forward for the limited implementation were:

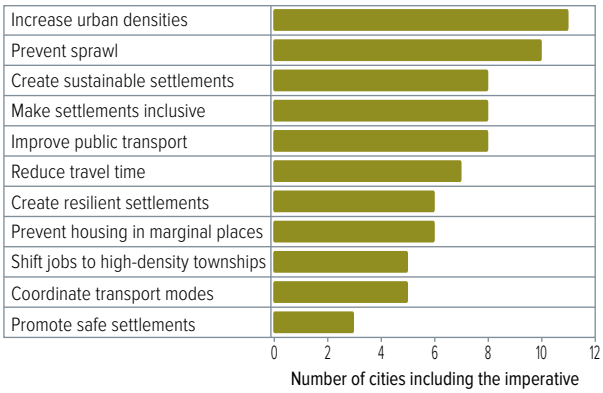
- The dominance of private sector interests (x5)
- Little ownership of SDFs within municipalities, which is further hampered by capacity constraints (x4)
- The inhibiting role of traditional authorities as regards land (x3)
- The infrastructure limitations of some of the cities (x2)
- The lack of implementation plans (x2)
- Power play and politics (x2)

Other reasons given were private transport systems, unrealistic assumptions about economic and population growth, the apartheid history, the interests of the upper-middle-class residents, poor planning by the consultants, inadequate articulation of projects and municipal cash flow problems, and the role of provincial or national departments in fostering land developments beyond the parameters set by the SDF.

Do the SDFs use the IUDF's 11 ways of achieving spatial transformation?

The IUDF provides a good example of how spatial transformation can be achieved or what the outcomes should be (although spatial transformation goes beyond the 11 aspects included in the IUDF). Therefore, the case-study writers were asked to indicate the extent to which the 11 ways of ensuring spatial transformation have been used in the SDFs of their individual case studies (Figure 12).

Figure 12: Level of application in cities' SDFs of the 11 IUDF spatial transformation imperatives



All the SDFs emphasised increasing urban densities, and 10 of the SDFs emphasised preventing sprawl. This perhaps shows that the notions of densification and the prevention of urban sprawl, which both rose to prominence in the mid-1990s are firmly established in planning terminology and planning practice. While some cities show positive results, the question remains why sprawl is still occurring in Matjhabeng, Lephalale, KSD and Rustenburg). What does appear to be a prerequisite for increasing densities and preventing urban sprawl is to have a well-defined and well-policed urban edge.

The next three important concepts, which were found in 8 of the SDFs were:

- The creation of sustainable settlements: a concept that rose to prominence with the adoption of the Breaking New Ground (BNG) policy.
- Inclusive settlements: another concept that emerged from the adoption of the BNG.
- Improving public transport: a concept included in the City Support Programme and focused on the introduction of BRTs.

The reality is that, while the first two concepts generally lack definition and application, they sound appropriate to include in spatial planning documents. As mentioned earlier, metropolitan municipalities consider BRTs to be the main mechanism with which to link places of work and residence, but this opinion featured less prominently among the intermediate cities.

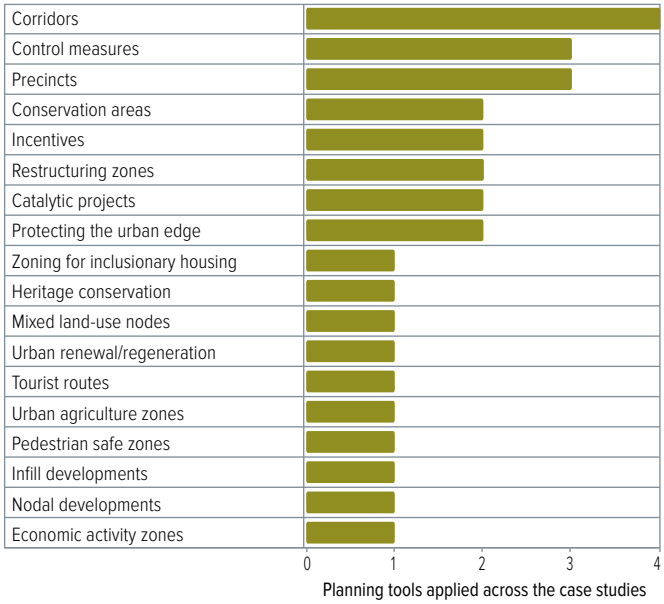
About half of the SDFs included the concept of reducing travel time (7/11) and preventing housing in marginal areas (6/11), but they did not explain what is meant by marginal areas. Settlements in Mbombela and Lephalale that are behind the historical homeland boundary could well be considered as marginal, as could some of the rural villages in Polokwane. Yet the plans seldom define or articulate places, and the politics of ensuring an equitable distribution of resources overshadow logical thinking in this regard.

The three concepts least applied in the SDFs are the promotion of safe settlements (3/11), coordination of transport modes (5/11) and shifting jobs to high-density townships (5/11).

Which planning tools are applied in the SDFs and in practice?

Municipalities can draw on various planning tools, including development control processes, action plans, development incentives, investing in infrastructure to underpin the spatial vision, focused investment in restructuring zones or integration areas, the use of national instruments such as social housing in restructuring zones or tax incentives in urban development zones, inclusionary housing requirements and special spatial restructuring projects. Figure 13 shows the tools that the intermediate cities studied apply in their SDFs and in practice, based on an assessment by the case-study writers.

Figure 13: Planning tools applied across the case studies



The most used planning tools used are corridors and development precincts, while the main control mechanisms are planning control and protecting the urban edge.

Which obvious things are missing in the SDFs?

Rural-urban linkages. Only one (Matjhabeng) of the 11 SDFs refers to urban-rural linkages and their importance for the economy. Stellenbosch and Drakenstein refer to the importance of agriculture in their overall development, but ensuring appropriate rural-urban linkages goes beyond what is contained in their SDFs. An approach that prioritises rural-urban linkages would ensure a high standard of connectivity (mainly roads) between rural and urban areas. In many cases, the rural hinterland stretches beyond the political boundaries of a particular municipality. These intermediate cities play an important role in providing goods and services to their hinterlands and yet, astonishingly, very little is being done to plan rural-urban linkages within the existing SDFs.

Sustainable settlements. Although reference is made to sustainable settlements, the content is rather thin. Biodiversity and ensuring environmental integrity are both mentioned, but the SDFs do not consider ways of reducing energy use or non-motorised transport (with the exception of Stellenbosch), or cleaner environments, nor do they have a long-term focus on the environmental footprint of settlement planning or sprawl.

Inclusionary housing or of mixed-income developments. The plans include references to this type of developments but provide little evidence of practical application.

PART 5

Are Intermediate Cities Different?

Eleven case studies formed part of this research into intermediate cities: King Sabata Dalindyebo (KSD), Lephalale, Matjhabeng, Mbombela, Mahikeng, Msunduzi, Polokwane, Rustenburg, Sol Plaatje and Stellenbosch. The research had three aims:

1. To understand the nature of and influences on spatial changes.
2. To evaluate the quality and ability of SDFs as a policy mechanism to create change.
3. To assess whether intermediate cities require a differentiated approach to spatial transformation.

In response to the first aim, the research revealed that **intermediate cities are both densifying and sprawling, are economically vulnerable and underperform in respect of generating own municipal income**. With regards to land, traditional authorities play a dominant role and the power of capital determines to a large extent where development takes place.

With regards to the second aim, the research found that **spatial plans are not driving development and that, although the quality is generally acceptable, implementation is lacking**. Most SDFs emphasise increased densities and the prevention of sprawl, but are less inclined to deal with safety concerns and with the coordination of transport nodes. Plans generally lack reference to developing and building on rural-urban linkages, promoting sustainability, providing either inclusionary housing or mixed-income developments, and aligning local planning with social and labour plans.

The third aim was to establish whether intermediate cities are so different that they require a differentiated approach to spatial transformation. The research found that **intermediate cities and metropolitan areas are similar in many ways.** They are dealing with the same consequences of apartheid planning and the pressures of managing urbanisation, especially in some of the mining-dependent intermediate cities. And most intermediate cities are dealing with these pressures in largely similar ways to those used in metropolitan areas (Marais and Cloete, 2016). However, **intermediate cities are also different from metropolitan cities.**

The main differences

Urban sprawl spread over smaller geographical areas

The intermediate cities are generally much smaller than metropolitan areas. Therefore, reducing travel time and increasing densities are perhaps not as important in the short term, although travel time has become an issue in some of the larger intermediate cities (Msunduzi and Rustenburg). Nevertheless, allowing sprawl to continue does little to enhance infrastructure efficiencies. Linked to size are multi-nodal developments, which are largely a feature of metropolitan areas. While some intermediate cities contain multi-nodal developments, their scale and nature are very different from those found in metropolitan areas.

Vulnerable economies dependent on one or two sectors

The economic-transformation trajectories of many intermediate cities differ from those of metropolitan areas (Marais, 2016). Many (although not all) intermediate cities have substantial parts of their economies either directly or indirectly linked to the primary sector (mining) or to the secondary sector (manufacturing), whereas metropolitan cities have diversified their economies and do not depend on one or two key sectors. This lack of diversity makes intermediate cities more economically vulnerable than their metropolitan counterparts. The average household incomes in most intermediate cities are also smaller than those in metropolitan cities, although some compare rather well (Marais and Cloete, 2016).

Strong interest groups and power dynamics

In many intermediate cities, the influence of political and business interests in land development is stronger than in metropolitan areas. As a result, many municipalities are unable to stand their ground in respect of their spatial plans. These dynamics are further complicated in cities where large tracts of land belong to traditional authorities, given the power associated with traditional land.

Weak planning, governance and financial capacities

In some intermediate cities, planning capacity is a problem, resulting in the outsourcing of the drafting of SDFs, which become more about compliance and less about planning development, and are not valued highly within the municipality. The weak governance and financial position of intermediate cities also increases the risk of making the wrong spatial decisions for short-term financial gain.

High dependence on mining

The high current and historical dependence on mining differentiates intermediate cities from metropolitan areas. The mine industry's changing labour regime and housing policies have increased pressure on municipalities, whereas the social and labour plans (which are managed by the Department of Mineral Resources) do not address immediate or longer-term development concerns in mining towns – and yet are not public documents because they form part of legal agreements.

Towards a differentiated approach

Although intermediate cities differ from metropolitan areas, they are not sufficiently different to require an alternative framework for spatial transformation. However, they do require differentiated planning. The intent of spatial transformation in intermediate cities should be similar to that in metropolitan municipalities, but the following should be considered in developing differentiated planning.

Respond differently to urban sprawl

Continued urban sprawl should not be the norm, but the current emphasis on BRTs in many of the metropolitan areas might not be the most appropriate response in intermediate cities, given their smaller geographical size. Infill developments offer an opportunity to expand the higher levels of racial desegregation found in intermediate cities, which are in part due to lower property and land prices. A priority for intermediate cities where mining is present should be the creation of high-density rental accommodation. At the same time, the grants (e.g. housing subsidies) that are contributing to sprawl and low densities will need to be reviewed, to ensure that they create productive infrastructure and contribute to spatial transformation.

Diversify the economy

Although the lever of inclusive economic growth is important in both intermediate cities and in metropolitan areas, more can be done to address the inherent vulnerability of intermediate cities. This means dealing with economic diversification and, in mining cities, planning for uncertainty and to avoid the long-term liabilities from growing/declining mining operations. Such planning should ensure that land-use functions can easily be changed.

Manage the power of external role-players

The influence of politics, capital and other interest groups needs to be addressed within intermediate cities. This will require municipalities recognising the importance of SDFs as planning documents and improving municipal finances, through increasing local revenue and better financial management. Urgent attention also needs to be paid to the impact of traditional land management issues on intermediate cities.

Strengthen municipal capacities

Central government will have to prioritise building planning capacity in the intermediate cities, especially as SPLUMA empowers all municipalities to undertake spatial planning. The governance and financial management of intermediate cities need to be strengthened, with the aim of improving their financial position.

Develop a holistic strategy for mining towns

The issue of social and labour plans needs to be reviewed urgently, and funds available through these plans must be appropriately spent to address spatial transformation and short- and long-term local development in mining cities. A holistic strategy of thinking about mining towns is needed, one that goes beyond the simple housing and ownership model embedded in the Strategy for the Revitalisation of Distressed Mining Towns.

Adopt a city-by-city approach

The spatial concerns are somewhat different in each of the 11 case studies. Therefore, although some broad policy and programme guidelines may be possible, a city-by-city approach should be adopted.

Further research

Appropriate planning tools

- Which planning tools could assist in achieving the desired spatial outcomes (e.g. inclusionary housing, mixed-income developments, effective regulation and tax regimes)?

Examine traditional land issue

- Where services have been provided on traditional land, how has this been done, what are the benefits and disadvantages, and the implications for municipal finance?
- Why do people settle on traditional land and does this plays a more equitable role in respect of land access?

Special focus on mining towns

- The current Strategy for the Revitalisation of Distressed Mining Towns is inadequate. Research is needed into the problems facing mining towns, to develop a knowledge base that will underlie a strategy for developing such urban spaces.
- How do social and labour plans contribute to (or inhibit) local development and spatial transformation, and what could municipalities, mines and the Department of Mineral Resources do to ensure better planning outcomes?

Data on intermediate cities

- Collect and collate data that would enable detailed analysis of intermediate cities.
- Such data would provide the basis of a coherent and continuous programme of work that seeks to observe, monitor, analyse and inform research on intermediate cities.

Table 5: Growth of densely settlement land in the intermediate cities (1990 and 2014)

Municipality	1990 (Ha)	2014 (Ha)	Growth in hectares	% growth (land) 1990 vs 2004	% growth (population) 1996-2011%	Population growth: land expansion
Drakenstein	4 087	4 443	356	8.7	34.8	4:01
KSD	52 101	50 448	–1 653	–3.2	13.9	–
Lephalale	3 748	6 055	2 307	61.5	47.1	0.7:1
Mahikeng	20 839	21 870	1 031	4.9	20.3	4.1:1
Matjhabeng	9 289	10 647	1 358	14.6	–0.14	–
Mbombela	24 081	28 054	3 973	16.5	38.2	2.3:1
Msunduzi	22 012	23 421	1 409	6.4	17.9	2.8:1
Polokwane	30 596	42 525	11 929	39	48.1	1.2:1
Rustenburg	12 401	16 784	4 383	35.3	76.3	2.2:1
Sol Plaatje	4 560	4 754	194	4.3	20.9	4.9:1
Stellenbosch	2 658	2 810	152	5.7	49.7	8.7:1

Table 6: A comparison of the intermediate cities and metropolitan areas of South Africa in terms of racial desegregation (1996 and 2011)

City	Total wards	1996 (number of wards with +50% of the people being classified as white by the Census)	2011 (number of wards with +50% of the people being classified as white)	1996 (% of wards with +50% of the people being classified as white by the Census)	2011 (% of wards with +50% of the people being classified as white)	% change between 1996 and 2011
Drakenstein	31	4	4	12.9	12.9	0
KSD	35	0	0	n.a	n.a	n.a
Lephalale	12	2	0	16.7	0	100
Mahikeng	31	0	0	n.a	n.a	n.a
Matjhabeng	36	7	0	19.4	0	100
Mbombela	39	4	4	10.3	10.3	0
Msunduzi	37	4	1	10.8	2.7	75
Polokwane	38	5	1	13.2	2.6	50
Rustenburg	38	5	3	13.2	7.9	40
Sol Plaatje	31	4	2	12.9	6.5	50
Stellenbosch	22	7	6	31.8	27.3	14.3
Average: 11 case studies	284	42	21	14.8	7.4	50.0
Metros	710	163	110	23.0	15.5	26.4

Table 7: Household infrastructure access indicators for intermediate cities (2011)

Intermediate city	% of households with indoor water (2011)	% flush toilet access (2011)	% of households with electricity access (2011)	% of households living in informal structure (2011)	% of population on urban land (2011)
Drakenstein	80	93.7	95.0	13.4	85
KSD	19.1	33.8	73.2	2.0	35
Lephalale	31.4	46.3	85.0	15.2	40
Mahikeng	30.9	32.8	84.5	10.4	22
Matjhabeng	54.8	82	91.1	19.7	98
Mbombela	37.1	33.8	90.2	4.8	28
Msunduzi	47.9	60.2	91.9	8.2	75
Polokwane	37.1	33.8	90.2	4.8	41
Rustenburg	35.8	57.5	83.0	31.5	68
Sol Plaatje	61.9	84.8	84.9	17.2	99
Stellenbosch	72.4	91.7	92.9	22.9	87

Table 8: Economic size, economic growth, economic structure in the intermediate cities (1996–2010)

City	Total GVA (R000 000-2010 constant values)	GVA per capita	GVA growth p.a. 1996-2015	GVA growth 2011-2015	Mining as % of total economy (2015)	Primary sector as % of economy (2015)	Secondary sector as % of economy (2015)
Drakenstein	14 074	50 264	2.7	2.2	0.2	7.6	23.5
KSD	11 597	23 667	2.9	1.9	0.4	1	8.8
Lephalale	8 336	59 542	2.7	–0.6	37.1	40.5	29.1
Mahikeng	13 437	42 657	2.7	2.2	0.4	1.4	10.3
Matjhabeng	31 360	72 930	–0.2	1.3	42.1	43.4	11.4
Mbombela	30 052	48 083	2.7	1.8	2.4	5.4	18.4
Msunduzi	36 297	53 377	3.0	1.8	0.6	3.2	25.5
Polokwane	34 754	49 648	3.8	1.9	0.6	1.5	11.5
Rustenburg	54 650	86 748	1.8	–1.6	59.4	60.1	8.7
Sol Plaatje	14 914	58 484	1.9	1.1	10.5	11.5	9.3
Stellenbosch	10 460	59 771	2.9	2	0.2	6.5	21.7
Average (per city)	**23 630**	**55 070**	**2.4**	**1.3**	**14.0**	**16.6**	**16.2**

Table 9: Employment, household income and dependency in the intermediate cities

City	% of people employed (2011)	Unemployment rate (2011) (%)	Youth unemployment rate (2011) (%)	Annual household income (2011)[1]	Annual growth in household income (2001-2011)[1]	Dependency ratio (2011)
Drakenstein	34.8	17.1	37.1	143 343	7.8	44.5
KSD	13.1	38.3	48.3	61 069	8	66.8
Lephalale	30.5	22.9	26.9	100 496	13.1	43.6
Mahikeng	20.5	35.7	47.3	82 671	8.8	55.3
Matjhabeng	24.5	37	49.7	73 721	8.8	46.9
Mbombela	27.9	28.1	37.6	93 739	9.4	51.1
Msunduzi	24.9	33	43.1	110 302	8	46.2
Polokwane	27.9	28.1	37.6	164 000	9.4	51.1
Rustenburg	35.7	26.3	34.7	196 080	7.9	37.9
Sol Plaatje	25.4	31.6	41.7	63 049	8.2	51
Stellenbosch	36.6	21.5	15.2	153 233	4.7	38.4

Table 10: Municipal expenditure data for intermediate cities

City	Total municipal expenditure (R000 000) (2015/16)	% of budget on maintenance (2015/16)	% expenditure on personnel (2015/16)	Municipal expenditure per employee	Municipal expenditure (2015/16) per resident (2016)	GVA: mun. expenditure (2015/16)	Audit outcome (2014, 2015, 2016)
Drakenstein	1 618	4.5	25.5	852 844	5 779	09:01	CI,CI,CI
KSD	1 016	1.3	30.6	509 750	2 073	11:01	Q,Q,Q
Lephalale	409	3.4	27.5	794 221	2 921	20:01	Uf, Uf, Uf
Mahikeng	742	3.6	27.3	876 664	2 353	18:01	Q, D, D
Matjhabeng	2 163	1.2	25.4	911 135	5 030	15:01	D, D, NF
Mbombela	2 114	8.7	24.6	n.a.	3 382	14:01	No data
Msunduzi	4 245	3.6	22.2	858 784	6 243	09:01	Uf, C, Q
Polokwane	1 689	7.1	20.0	681 200	2 413	21:01	Q, Uf, Uf
Rustenburg	3 496	3.2	15.2	931 715	5 549	06:01	Q, Uf, NF
Sol Plaatje	1 689	7.1	24.8	681 200	6 623	09:01	Q, Uf, Uf
Stellenbosch	1 254	4.4	29.3	1 068 934	7 166	08:01	Uf, CI, CI

Table 11: Municipal income indicators for intermediate cities

City	Total income	Total own income	Property tax levied per resident per annum	Total property tax	Total sale of services	Property tax as % of own income	Property tax: service fees	Grants	Urban: rural ratio	Nature of rural land
Drakenstein	1 586 081 223	1 391 560 269	692	193 848 747	1 058 874 024	13.9	1:5.5	194 520 954	85:15	Commercial agriculture
KSD	1 076 944 109	689 683 907	339	166 333 200	266 761 628	24.1	1:1.6	387 260 202	35:65	Traditional land
Lephalale	400 189 050	227 740 916	300	41 948 076	163 774 408	18.4	1:3.9	172 448 134	40:60	Commercial agriculture and traditional land
Mahikeng	521 385 437	338 848 139	451	142 189 789	133 277 015	42.0	1:0.9	182 537 298	22:78	Traditional land
Matjhabeng	1 876 769 435	1 290 422 063	448	192 549 129	942 577 378	14.9	1:4.9	586 347 372	98:2	Commercial agriculture
Mbombela	2 158 741 341	1 316 741 341	537	335 673 587	786 818 762	25.5	1:2.3	842 000 000	28:72	Commercial agriculture and traditional land
Msunduzi	4 290 125 472	3 520 485 375	1 091	742 052 098	2 468 236 938	21.1	1:3.3	769 640 097	75:25	Commercial agriculture and traditional land
Polokwane	2 505 166 149	1 402 375 838	366	256 187 487	927 228 857	18.3	1:3.6	1 102 790 311	41:59	Commercial agriculture and traditional land
Rustenburg	3 689 590 000	2 687 801 000	420	264 534 000	2 085 080 000	9.8	1:7.9	1 001 789 000	68:32	Commercial agriculture and traditional land
Sol Plaatje	1 949 602 029	1 673 659 024	1 900	484 397 277	1 004 894 715	28.9	1:2.1	275 943 005	99:1	Commercial agriculture
Stellenbosch	1 411 088 371	1 183 820 239	1 545	270 378 662	705 713 720	22.8	1:2.6	227 268 132	87:13	Commercial agriculture
Average	1 951 425 692	1 429 376 192	735	280 917 459	958 476 131	21.8	1:3.5	522 049 500		

1 The CPI in South Africa stood at 5.9% per annum in this period.

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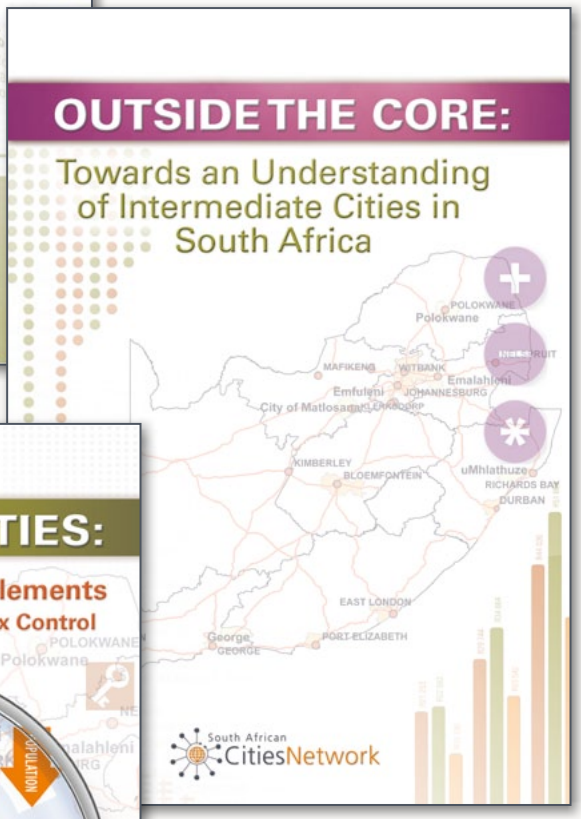

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