



West Rand Industrial Strategy

STATUS QUO REPORT

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MODULE 1: PROJECT DEFINITION AND PROBLEM STATEMENT

The *Project Definition and Problem Statement* module provides background information regarding the nature and requirements of the study as indicated in the project brief. Secondly, the study area is defined for further analysis (the West Rand District and the four local municipalities - Mogale City, Merafong City, Randfontein and Westonaria). Following industrial development is defined and the approach of the study is highlighted.

In the context of the above, this module provides an in-depth assessment of the project definition and problem statement in terms of the following aspects:

- ✓ Introduction
- ✓ Project Description

CHAPTER 1: INTRODUCTION

1.1 BACKGROUND

Demacon Market Studies were commissioned by **The West Rand District Municipality** to compile a comprehensive, specialist site-specific *Industrial Development Strategy* for the West Rand District Municipality and the four local Municipalities located within the District (within the Gauteng Province).

The West Rand District municipality consist of four local municipalities, Mogale City, Merafong City, Randfontein and Weston Area. The West Rand has a strong historic character linked to the mining sector and in turn the industrial sector. The study is focused on establishing the state of the current industrial operation and identifying new industrial development potential. Briefly, there are currently 12 industrial nodes located within the West Rand. These industrial nodes represent stable, fully developed nodes, nodes in need of maintenance and improvements, nodes and corridors that are underdeveloped and the potential for the expansion of some existing nodes and even the establishment of new nodes.

In the context of the above, chapter one provides an overview of the project requirement, as set out in the project brief (provided by the West Rand District Municipality) to inform and guide the study. In addition to the project background, the study area / site delineation is briefly highlighted to focus the study geographically. This chapter concludes with a detailed report outline.

1.2 PROJECT BRIEF

The overall development concept is based on a focused *Industrial Development Strategy for the West Rand*. The project brief alludes to the following **key issues to be addressed** by the Industrial Development Strategy:

- ✓ A **detailed description and analysis of the manufacturing sector** within the **district**, its support structure and the nature of skills it employs to conduct its activities
- ✓ A **value chain analysis** of the **main manufacturing industries** (per growth point) as well as primary sectors within the district, particularly mining – also including gap analysis
- ✓ Global **skills needs analysis** within the district taking into account the future plans of the municipality and **skills profile** of the area, identify gaps and ways of addressing skills needs
- ✓ **Identify industrial growth point / nodes** and the suitable major **industrial clusters** per node and provide for the connectivity between different nodes and clusters
- ✓ Identify and mobilise **public sector support** for industrial development through strategic investments in public goods and **state regulatory regime** that needs to be provided for the implementation of the Implementation Plan
- ✓ Identify suitable **aid and incentives** available to support the investment process and how the district will tap into that
- ✓ Conduct a **cost of labour analysis** within the district
- ✓ Conduct **utilities suitability analysis** which provide information on water and electricity costs, the amount of water and electricity available per plant, connection fees and the waiting period for the connections to be made
- ✓ Develop a **register** with the names, activities and contacts of all manufacturing industries within the district

- ✓ Develop a **Growth Points Analysis Report**, which will include a SWOT analysis of **each growth point** (including agglomeration potential)
- ✓ Develop a framework of activity indicating the efficient market players and the adjustment of those areas, where market is not sufficient enough to be included - **Clarify**
- ✓ Special emphasis on the **reduction of administrative regulation**, attention of the municipality to scientific research and investments thereof
- ✓ Develop an **alignment programme** with **provincial** and **national strategies** and **policies**
- ✓ Develop a **dedicated research and development programme** of all the industries in the West Rand
- ✓ Conduct **strategic product lines** for sustainable growth and support of the West Rand economy
- ✓ Conduct a **comprehensive profile of industrial** trends in the West Rand
- ✓ A market study indicating **current obstacles and / or issues** in the region's industrial market
- ✓ Identify **implementation strategies** (priorities, requirements, negotiations with stakeholders, funding, etc.) in order to address the above
- ✓ Analysis of **local and regional economics**
- ✓ Cognisance should be taken of **transportation corridors and initiatives** in the West Rand
- ✓ A **financial framework** projecting costs and scenarios of most viable projects
- ✓ Identify various incentives in order to attract private investment
- ✓ Put in place **supply-side support measures** at company and cluster level, and programmes aimed at improving technology and productivity
- ✓ Provide accurate and reliable information to industry about **long-term infrastructure investment plans** locally, provincially and nationally.

Demacon's approach is purely market based and we will apply our extensive involvement and recent research in the study area, coupled to market intelligence on the subject matter to complement the market study.

1.3 STUDY AREA / SITE DELINEATION

The West Rand district Municipality is Located within the Gauteng Province and consist of four local municipalities, Randfontein, Mogale City, Merafong City and Westonaria. See map on overleaf.

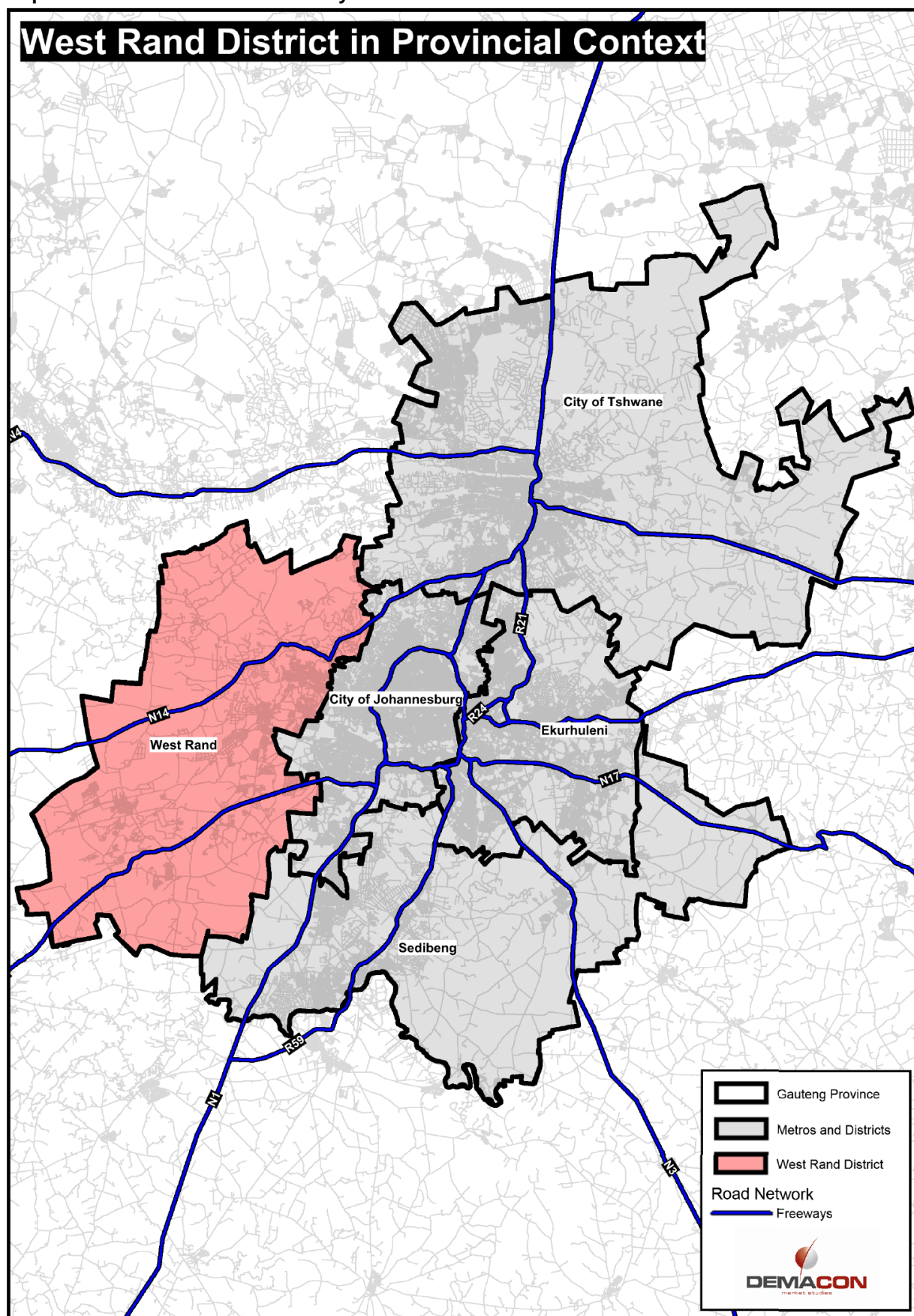
Historically, Gauteng (and the West Rand) has been built on the Gold industry. Mines, mining houses and the related industries thrive in this province. There are approximately 159 mines – of which 44 of them gold mines - in Gauteng that together produce a quarter of South Africa's total mineral production. Most of the mining is for gold - 80% of Gauteng's output.

One of the most important aquifers in South Africa is the dolomitic aquifer of the West Rand and Far West Rand area. Due to the anthropogenic influences from both mining and industrial sources, this aquifer is increasingly under threat of becoming a vast unexploitable reserve of no use as a groundwater resource. The gold-bearing reefs contain an array of minerals such as native gold, uranium oxides, traces of platinum and an array of sulphide minerals with pyrite being the most abundant. Most of the mines have produced uranium as well as gold.

Gold mining is the principle economic activity in the West Rand and Far West Rand regions. This industry is the basis of the economy and socio-economic development of the region. Gold mining on the West Wits Line contains of the biggest and richest mines in the entire

Witwatersrand basin. Unfortunately, associated with all the economic and social benefits arising from gold mining there are several negative impacts on the environment.

Map 1.1: West Rand Industrial Study Area



In order to gain a better understanding of the industrial development in the West Rand, the history behind the development of the area is of utmost importance as this provides a background understanding of how and why this area has developed over the years. Following is a brief historic overview of each of the local municipalities located within the West Rand District.

Merafong City: Merafong's historical development is closely knit with the discovery of rich gold reefs in the early nineteen thirties. The three towns of *Carletonville*, *Fochville* and *Wedela* each developed as individual entities with their own characteristics. *Fochville* is the oldest unit, established by two residents, Messer's Wulfson and Horvitch and was declared a town in 1951. A mine engineer from a gold mining company Gold Fields, Guy Carleton Jones, played a prominent role in the discovery of the so-called West Wits line Gold Reef, of which *Carletonville* forms part. The town Carletonville was named after him. As a result of the strategic location and already developed Oberholzer district, the Gold Fields Mine Group decided in November 1946 to establish a town. Carletonville was proclaimed in 1948 and attained Town Council Status on 1 July 1959. *Wedela* was established as a mining village, many years later in December 1978, by Mr. Harry Oppenheimer. The town is situated between Western Deep Levels and Elandsrand Gold Mine. The town's name is derived from the prefixes of the two mines, namely the Wed of Western Deep Levels and the -ela of Elandsrand. Municipal status was granted to Wedela on 1 January 1990. Attached to Fochville and Carletonville are also the towns of Khutsong, Kokosi and Greenspark, Welverdiend, and Blybank

Mogale City: Mogale City is named after Mogale wa Mogale, who took over the Po Chiefdom following the death of his father in the 1820s at the hands of Mzilikazi's warriors. The Batswana ba Po was one of the original tribes that inhabited the region. They were miners and traders of gold, with links to other peoples across the continent. The contribution made by the chief and his people was long ignored, but in 2001 their status was restored with the renaming of the municipality from Krugersdorp Local Council to Mogale City. Mogale was formerly a mining city founded in 1887 by Marthinus Pretorius and named after Paul Kruger. Apart from gold, manganese, iron, asbestos and lime are also mined in the area. This is the site of the December 1880 gathering at which more than 6,000 men vowed to fight for the Transvaal's independence. When gold was discovered on the Witwatersrand, a need arose for a major town in the west of the reef. The government bought part of the farm Paardekraal and named the new town after the Transvaal President Paul Kruger. The British built a concentration camp here during the Second Boer War to house Boer women and children. In 1952 the West Rand Consolidated Mine was the first in the world to extract uranium as a by-product of the gold refining process. Mogale City includes Krugersdorp, Azaadville, Munsieville, Kagiso, Tarlton, Hekpoort and surrounds, stretching into Magaliesberg.

Randfontein: Randfontein emerged as a gold mining town during the late 1800s. With the Witwatersrand gold rush in full swing, mining financier JB Robinson bought the farm Randfontein and, in 1889, floated the Randfontein Estates Gold Mining Company. The town was established in 1890 to serve the new mine and was administered by Krugersdorp until it became a municipality in 1929. Apart from having the largest stamp mill in the world (used in early paper making for preparing the pulp), Randfontein, like many of the other outlying areas of Johannesburg, is essentially a rural collection of farms and small holdings in a particularly beautiful part of Gauteng. Randfontein includes Mohlakeng and Toekomsrus.

Westonaria: Westonaria was proclaimed in 1938 as a result of all the mining activities that took place in this area since 1910 when the first shaft – Pullinger Shaft was sunk. Venterspost town was proclaimed in 1937; Hillshaven, Glenharvie, Waterpan and Libanon were mainly established as mining residential areas. Westonaria Local Municipality is providing services to these areas. Zuurbekom is mainly earmarked for agricultural purposes.

Bekkersdal was established in 1945 and administered under Westonaria Town Council; Simunye Proper is situated next to the R28 and Simunye Extension 2 (Phases 1 – 4) was developed for the development of the Presidential RDP project. Westonaria is situated amidst gold fields and forms the nucleus of five gold mines. The town is approximately 45 km from Johannesburg and is accessible by road and rail making it convenient for commuters to Johannesburg. The greater Westonaria consists of a number of satellite towns, being –Westonaria, Hillshaven, Glenharvie, Venterspost, Libanon, Waterpan, Bekkersdal and Simunye.

1.4 REPORT OUTLINE

The report is structured in terms of the following main headings:

Module 1: Project Definition and Problem Statement

- Chapter 1: Introduction
- Chapter 2: Project Description

Module 2: Contextual Analysis

- Chapter 3: Location Analysis
- Chapter 4: Policy Framework analysis

Module 3: Recourse Base

- Chapter 5: Economic Sectoral and Production Profile by Area
- Chapter 6: West Rand District Consumer Demand Base – Consumer Profile
- Chapter 7: Labour Force Profile
- Chapter 8: Sector Competitiveness Analysis
- Chapter 9: Mining Recourses and Operations on the West Rand
- Chapter 10: Industrial Operations on the West Rand

CHAPTER 2: PROJECT DESCRIPTION

2.1 INTRODUCTION

Demacon Market Studies were commissioned by the **West Rand District Municipality** to compile a comprehensive, specialist node-specific industrial development strategy situated in the **West Rand District Municipality** (within the Gauteng Province). This chapter firstly defines industrial development, as this is the main theme of the study. Secondly the development approach to be followed is unpacked and lastly the location theory and behaviour which have a direct influence on industrial development is briefly discussed.

2.2 PROJECT DEVELOPMENT – INDUSTRIAL DEVELOPMENT

Following is the Standard Industrial Classification (SIC) definition of manufacturing.

Section C: Manufacturing

Manufacturing includes the physical or chemical transformation of materials, substances, or components into new products, although this cannot be used as the single universal criterion for defining manufacturing (see remark on processing of waste below). The materials, substances, or components transformed are raw materials that are products of agriculture, forestry, fishing, mining or quarrying as well as products of other manufacturing activities. Substantial alteration, renovation or reconstruction of goods is generally considered to be manufacturing.

Units engaged in manufacturing are often described as plants, factories or mills and characteristically use power-driven machines and materials-handling equipment. However, units that transform materials or substances into new products by hand or in the worker's home and those engaged in selling to the general public of products made on the same premises from which they are sold, such as bakeries and custom tailors, are also included in this section. Manufacturing units may process materials or may contract with other units to process their materials for them. Both types of units are included in manufacturing.

The output of a manufacturing process may be finished in the sense that it is ready for utilization or consumption, or it may be semi-finished in the sense that it is to become an input for further manufacturing. For example, the output of alumina refining is the input used in the primary production of aluminium; primary aluminium is the input to aluminium wire drawing; and aluminium wire is the input for the manufacture of fabricated wire products.

Manufacture of *specialized* components and parts of, and accessories and attachments to, machinery and equipment is, as a general rule, classified in the same class as the manufacture of the machinery and equipment for which the parts and accessories are intended. Manufacture of *unspecialized* components and parts of machinery and equipment, e.g. engines, pistons, electric motors, electrical assemblies, valves, gears, roller bearings, is classified in the appropriate class of manufacturing, without regard to the machinery and equipment in which these items may be included. Assembly of the component parts of manufactured products is considered manufacturing.

Following are the respective manufacturing divisions and the corresponding sub-manufacturing.

Division 10 Manufacture of food products

- ✓ 101 Processing and preserving on of meat
- ✓ 102 Processing and preserving of fish, crustaceans and molluscs
- ✓ 103 Processing and preserving of fruit and vegetables
- ✓ 104 Manufacture of vegetable and animal oils and fats
- ✓ 105 Manufacture of dairy products
- ✓ 106 Manufacture of grain mill products, starches and starch products
- ✓ 107 Manufacture of other food products
- ✓ 108 Manufacture of prepared animal feeds

Division 11 Manufacture of beverages

- ✓ 110 Manufacture of beverages

Division 12 Manufacture of tobacco products

- ✓ 120 Manufacture of tobacco products

Division 13 Manufacture of textiles

- ✓ 131 Spinning, weaving and finishing of textiles
- ✓ 139 Manufacture of other textiles

Division 14 Manufacture of wearing apparel

- ✓ 141 Manufacture of wearing apparel, except fur apparel
- ✓ 142 Manufacture of articles of fur
- ✓ 143 Manufacture of knitted and crocheted apparel

Division 15 Manufacture of leather and related products

- ✓ 151 Tanning and dressing of leather; manufacture of luggage, handbags, saddlery and harness; dressing and dyeing of fur
- ✓ 152 Manufacture of footwear

Division 16 Manufacture of wood and of products of wood and cork, except furniture; Manufacture of articles of straw and plaiting materials

- ✓ 161 Sawmilling and planning of wood
- ✓ 162 Manufacture of products of wood, cork, straw and plaiting materials

Division 17 Manufacture of paper and paper products

- ✓ 170 Manufacture of paper and paper products

Division 18 Printing and reproduction of recorded media

- ✓ 181 Printing and service activities related to printing
- ✓ 182 Reproduction of recorded media

Division 19 Manufacture of coke and refined petroleum products

- ✓ 191 Manufacture of coke oven products
- ✓ 192 Manufacture of refined petroleum products

Division 20 Manufacture of chemicals and chemical products

- ✓ 201 Manufacture of basic chemicals, fertilizers and nitrogen compounds, plastics and synthetic rubber in primary forms
- ✓ 202 Manufacture of other chemical products
- ✓ 203 Manufacture of man-made fibres

Division 21 Manufacture of basic pharmaceutical products and pharmaceutical preparations

- ✓ 210 Manufacture of pharmaceuticals, medicinal chemical and botanical products

Division 22 Manufacture of rubber and plastics products

- ✓ 221 Manufacture of rubber products
- ✓ 222 Manufacture of plastic products

Division 23 Manufacture of other non-metallic mineral products

- ✓ 231 Manufacture of glass and glass products
- ✓ 239 Manufacture of non-metallic mineral products n.e.c.

Division 24 Manufacture of basic metals

- ✓ 241 Manufacture of basic iron and steel
- ✓ 242 Manufacture of basic precious and other non-ferrous metals
- ✓ 243 Casting of metals

Division 25 Manufacture of fabricated metal products, except machinery and equipment

- ✓ 251 Manufacture of structural metal products, tanks, reservoirs and steam generators
- ✓ 252 Manufacture of weapons and ammunition
- ✓ 259 Manufacture of other fabricated metal products; metalworking service activities

Division 26 Manufacture of computer, electronic and optical products

- ✓ 261 Manufacture of electronic components and boards
- ✓ 262 Manufacture of computers and peripheral equipment
- ✓ 263 Manufacture of communication equipment
- ✓ 264 Manufacture of consumer electronics
- ✓ 265 Manufacture of measuring, testing, navigating and control equipment; watches and clocks
- ✓ 266 Manufacture of irradiation, electromedical and electrotherapeutic equipment
- ✓ 267 Manufacture of optical instruments and photographic equipment
- ✓ 268 Manufacture of magnetic and optical media

Division 27 Manufacture of electrical equipment

- ✓ 271 Manufacture of electric motors, generators, transformers and electricity distribution and control apparatus
- ✓ 272 Manufacture of batteries and accumulators
- ✓ 273 Manufacture of wiring and wiring devices
- ✓ 274 Manufacture of electric lighting equipment
- ✓ 275 Manufacture of domestic appliances
- ✓ 279 Manufacture of other electrical equipment

Division 28 Manufacture of machinery and equipment n.e.c.

- ✓ 281 Manufacture of general-purpose machinery
- ✓ 282 Manufacture of special-purpose machinery

Division 29 Manufacture of motor vehicles, trailers and semi-trailers

- ✓ 291 Manufacture of motor vehicles
- ✓ 292 Manufacture of bodies (coachwork) for motor vehicles; manufacture of trailers and semi-trailers
- ✓ 293 Manufacture of parts and accessories for motor vehicles

Division 30 Manufacture of other transport equipment

- ✓ 301 Building of ships and boats
- ✓ 302 Manufacture of railway locomotives and rolling stock
- ✓ 303 Manufacture of air and spacecraft and related machinery
- ✓ 304 Manufacture of military fighting vehicles
- ✓ 309 Manufacture of transport equipment n.e.c.

Division 31 Manufacture of furniture

- ✓ 310 Manufacture of furniture

Division 32 Other manufacturing

- ✓ 321 Manufacture of jewellery, bijouterie and related articles
- ✓ 322 Manufacture of musical instruments
- ✓ 323 Manufacture of sports goods
- ✓ 324 Manufacture of games and toys
- ✓ 325 Manufacture of medical and dental instruments and supplies
- ✓ 329 Other manufacturing n.e.c.

Division 33 Repair and installation of machinery and equipment

- ✓ 331 Repair of fabricated metal products, machinery and equipment

Following the analysis approach is discussed.

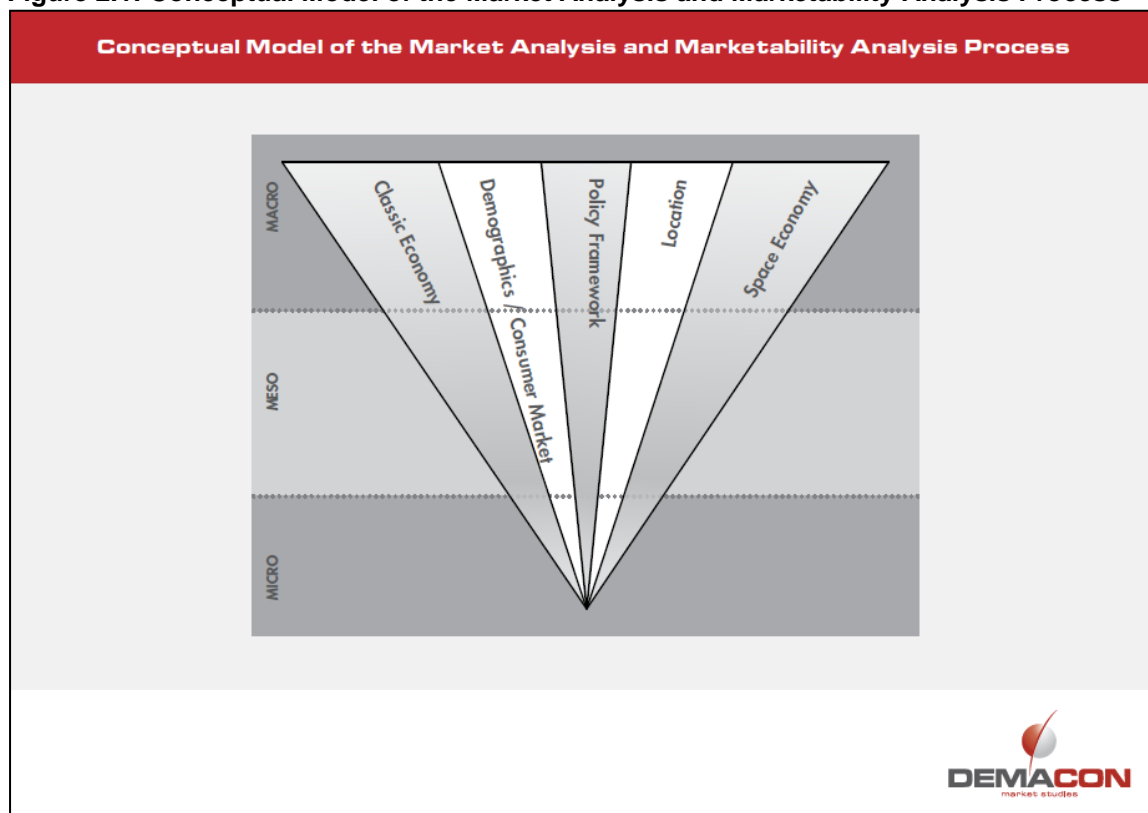
2.3 APPROACH

In the context of the project brief and subsequent discussion, a multi-sectoral market study is required to provide **market based status quo data and forward looking strategy guidance** as input to a focused West Rand Industrial Development Strategy and Business Plans. Therefore, the *Conceptual Model of the Market Analysis and Marketability Analysis* approach will be applied.

The *conceptual Model of the Market Analysis and Marketability Analysis* approach allow for detailed analysis on a macro, meso and micro level of the five cross cutting elements. These elements include classic economy, demographics / consumer market, policy framework, location and space economy. The subsequent chapters (elements for analysis) is therefore approached accordingly.

Figure 2.1 is a graphical illustration of the *Conceptual Model of the Market Analysis and Marketability Analysis* with the relevant cross cutting elements and levels of analysis.

Figure 2.1: Conceptual Model of the Market Analysis and Marketability Analysis Process



2.4 LOCATION THEORY AND BEHAVIOUR

Most of the available industrial development land within the West Rand is undermined or dolomitic in nature and poses some challenges in terms of development intensity. Different land uses therefore compete for available land for development and / or expansion. In the case of industrial land within the West Rand, we find the following:

- ✓ Some industrial nodes stagnate and are in need of revitalization
- ✓ Some industrial nodes are fully developed and in need of upgrading and refurbishment
- ✓ Some industrial nodes and corridors are underdeveloped
- ✓ Some nodes are located in close proximity to large labour potential with limited expansion potential
- ✓ Unique location requirements for industrial space at low / competitive rates in decentralized locations with lesser requirements in terms of centrality and sight value are needed.

In order to understand the locational theory and behaviour of different urban property markets the city land use model and rent bid functions are employed.

CITY LAND USE MODEL

To illustrate how land values change from area, to area a simple model is used. This model is based on two assumptions:

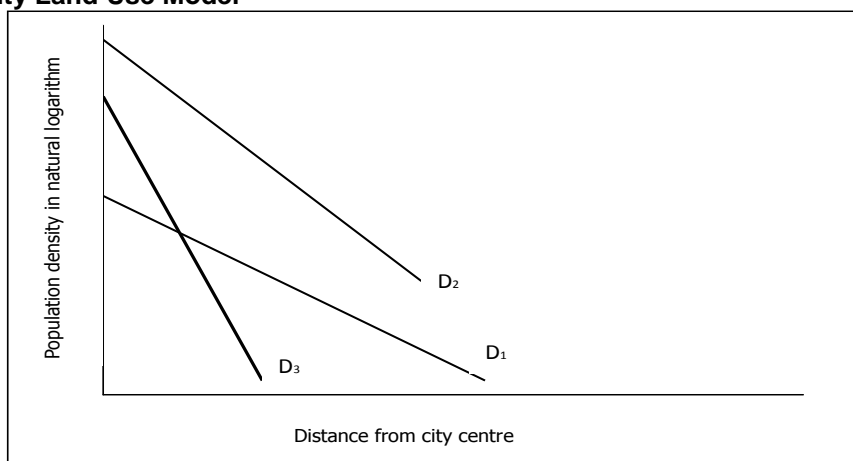
- ✓ Cities are multi-nodal and economic activities are concentrated at various centres across the urban fabric.
- ✓ Urban land is not allocated exclusively to residential use. Cities are characterised by competition between various land uses.

This model illustrates the process of dispersal that takes place in cities. This model focuses on urban functions. It is generally accepted that population density as well as urban land values decline from a city's centre to its periphery. This is reflected by the negative exponential density function¹ and has widely been used to measure density in relation to the distance from the city centre.

The curves in Figure 2.1 illustrate how a change in the population, income, commuter costs, and a taste for land uses impact on the pattern of urban population density. If population density is originally measured at D₁, it can be expected that density will be highest at the centre.

With the increase in transport costs and a shift in tastes toward higher density living (with population and income held constant) population density increases as land values in the city centre were bid up. D₁ will twist to D₂ and eventually to D₃. Rent gradients for urban areas also tend to decline at a decreasing rate from the city centre. The more intensely land is used, the higher the land value and *vice versa*.

Figure 2.1: City Land Use Model



Source: Neeman, 1981

Note: This model reflects the reality of European Design where land is relatively scarce and commercial development predominantly dictated by a monarchy. South African reality reflects that land is not a scarce resource (merely approximately 15% of land is taken up by urban development) and development trends are much more disperse. However, in terms of land values a similar trend is advocated.

The 'big picture' land value distribution illustrates why there has thus far not been a justifiable economic / financial imperative for higher rise mixed use developments in peripheral second economy environments.

COMPETITION FOR LAND AND THE MARKET MECHANISMS

However, what must be borne in mind is that different land uses compete for land in the same urban areas. This is where the concept of **highest and best use** plays a role. In a free-market society, on-going competition between different land uses is regulated by the market mechanism. Every site in the urban system has a highest and best economic use and equilibrium in the market will only be reached when the highest and best uses are allocated to the site.

¹ This can be written as $D(s) = De^{-ys}$

D(s) = population density s miles from centre

D = population density at centre

E = base of natural logarithm

Y = measure of rate at which density declines at distance from centre

This highest and best economic use is a function of physical and economic factors. Physical factors refer to the location of the site, the size thereof, visibility etc. Economic factors mainly refer to the productivity of the land use, including the return on investment and site rent achievable.

Each of the different urban markets, retail, office, industrial and residential, has different locational requirements, which are subsequently discussed.

Industrial and warehouse market - The decision to locate an industry in a specific geographic area is influenced by the following location factors:

- ✓ Needs to be in proximity to sufficient labour force with necessary skills and training.
- ✓ It must be accessible, referring to the forward and backward transportation of products and the accessibility of the labour force as well as the visibility of the site.
- ✓ Production factors relate to the availability and locality of input suppliers as well as the availability and location of the market for the final product
- ✓ Land availability referring to land market value and the lease value of the buildings
- ✓ Sufficient infrastructure services and communication systems form the basis of successful location of industrial uses.
- ✓ Agglomeration advantages provided by the site. Agglomeration advantages refer to the advantages experienced by economic activities having linkages with other economic activities within a geographical area. Linkages refer to the contact and flows between at least two agents, of various commodities, including products, services, information and goods.

Office market - The location factors influencing the establishment of offices in a specific area are inter alia, the following:

- ✓ Accessibility to the higher LSM labour force as well as clients
- ✓ Location of clients – office developments cannot be located in isolated areas far away from existing and potential clients
- ✓ Office clustering creates an environment which attracts new office developments to an area. Office clustering also encourages other economic activities due to the linkages between office and other economic activities.
- ✓ Adequate and quality infrastructural services (water, electricity, sewage etc.) and communication systems (telephone, email etc.) are critical for successful development
- ✓ Proximity to a labour force with the necessary professional qualification is an important aspect in the location of office developments
- ✓ Availability of land - referring to the land market values and the lease value of the building for the purpose of office development
- ✓ The image of the specific area is important. An area with a prestigious office image is generally a popular destination for new office developments.
- ✓ Office developments in general have linkages with other economic activities in various commodities such as services, information and goods.

Retail market - The location factors influencing the establishment of retail in a specific area are inter alia, the following:

- ✓ There needs to be sufficient buying power referring to disposable income per household in the catchment area of a retail facility

- ✓ Competition plays an important role due to sustainability and viability of a facility is higher with no competition in area
- ✓ Competitive shopping refers to the location of similar retail facilities in close proximity of each other, result in lower prices and improvement of services and products to the benefit of the customer
- ✓ Accessibility of the site is very important factor – with reference to the local labour force and consumer market.
- ✓ Land availability referring to land value and the lease value of structures. Lower values provide better development opportunities.
- ✓ Retail facilities in a given geographical area are ranked in a hierarchy that services a given portion of the consumer population.
- ✓ Stable investment environment
- ✓ Risk mitigation and land control also represent critical location factors – investors want to manage what happens around investments – especially in areas where demand thresholds are thin.

Residential Market - The residential market is not classified in the same economic market category as the preceding urban markets. The residential market is a complimentary urban market to various economic activities. For this reason residential development will not take place in the activity spine/core of a node/corridor but rather around the core.

To ensure successful residential development it is important that the location factors, which are considered by prospective home owners, are addressed by the development.

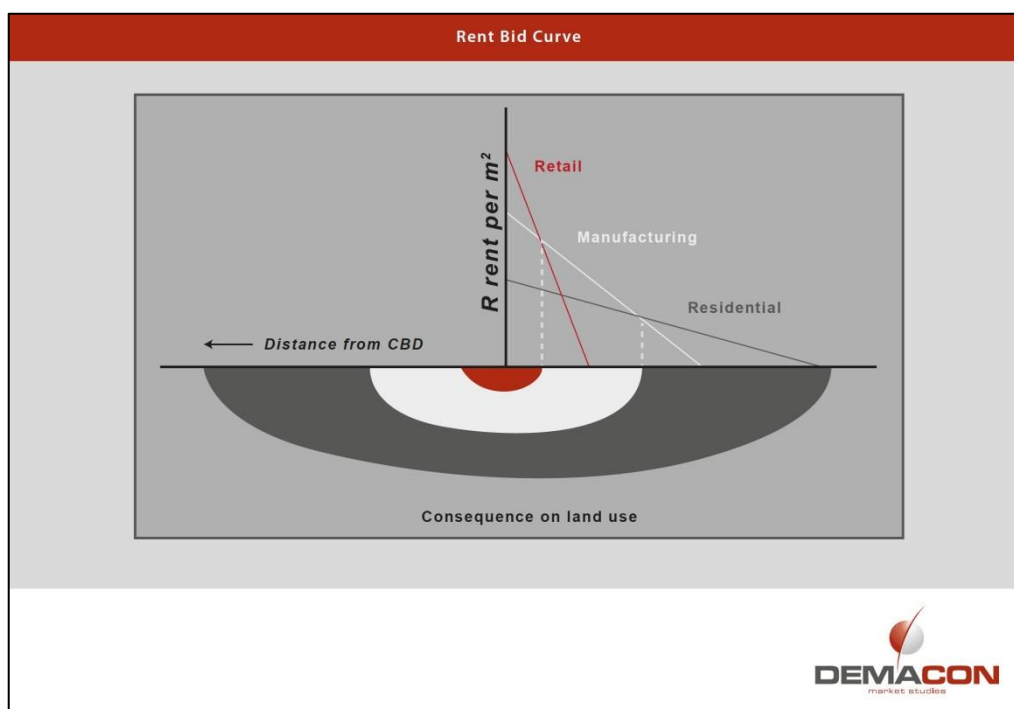
The location factors which are important for home owners include:

- ✓ Affordability and quality of housing
- ✓ Investment potential
- ✓ Safety and Security
- ✓ Proximity to the workplace
- ✓ Accessibility to educational and social facilities
- ✓ Proximity to retail facilities
- ✓ Socio-economic clustering.

Evidently, the **best-located land** will be offered to the land use with the **greatest potential site rent**. Land that is most accessible and visible will be offered for retail, office and industrial/warehousing uses due to the ability of these markets to pay higher rents for well-located land. Higher profit can be obtained when land is allocated to the optimum economic use.

The free market mechanism will continuously adjust land uses on a specific site until equilibrium is achieved. This equilibrium is reached when the **highest and best use** is assigned to a **specific site**. This will also indicate that the site is optimally used. This concept is illustrated in terms of the Rent-Bid Curve (Refer to Figure 6.2).

Figure 2.2: Rent Bid Functions for Urban Land Uses



Source: Neeman, 1981

Figure 2.2 illustrates the highest land rent that would be bid by each of these economic activities at various distances from the CBD. An equilibrium land use pattern emerges from the above and land will be devoted to the land use that provides the highest rent and in which its productivity is the highest.

From this it is evident that suitable well-located land is, in most cases, not allocated to housing developments: in terms of economic value and returns of investment, residential land is relatively unproductive. Retail, offices and industrial uses represent more productive uses for valuable land.

DEVELOPMENT IMPLICATIONS

During the location decision process of the development – careful consideration should be afforded in order to ensure the assignment of the highest and best use of available land. It is evident that more productive uses require prime locations, whereas less productive uses such as housing can be accommodated on less prime locations.

2.5 SYNTHESIS

The West Rand Industrial Strategy will focus on the industrial nodes per Local Municipality and identify possible future development potential per node and some overall development opportunities for the West Rand.

MODULE 2: CONTEXTUAL ANALYSIS

The *Contextual Analysis Module* geographically analyse the West Rand in term of location factors pertaining to industrial development within the West Rand. Secondly, the policy framework that informs and guide future development in terms of industrial development is analysed on a macro, meso and micro level to ensure proper alignment.

In the context of the above, this module provides an in-depth assessment of the project location factors and analyse policy documentation informing future development in terms of the following aspects:

- ✓ Location Analysis
- ✓ Policy Framework Analysis

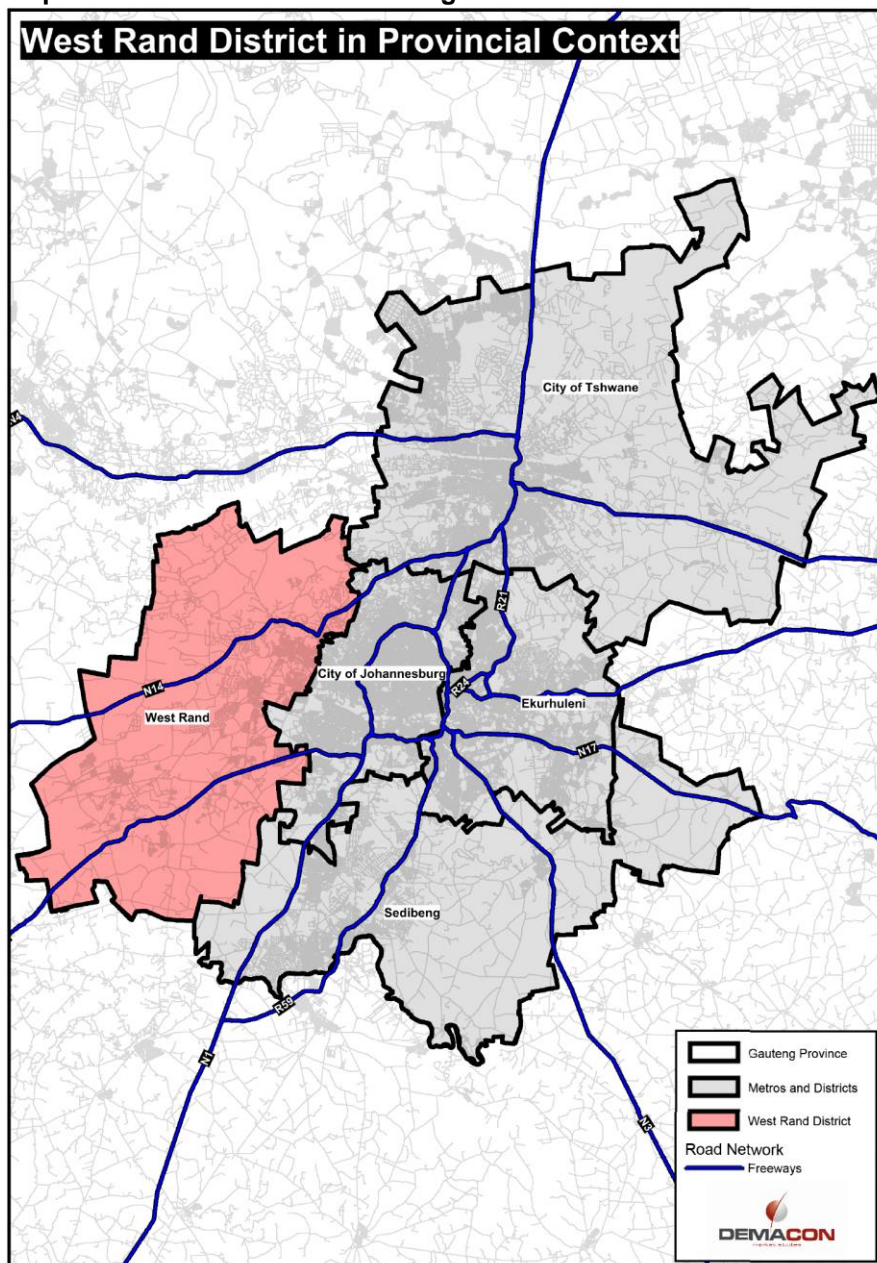
CHAPTER 3: LOCATION ANALYSIS

3.1 INTRODUCTION

The purpose of this chapter is to conduct a location analysis of the study area, thereby locating and analysing the site geospatially. It therefore entails an assessment of the study area on a macro, meso and micro level. In addition, a detailed assessment of the study area (industrial nodes) within the municipal context is provided. Map 3.1 indicates the West Rand District Municipality within the Gauteng context.

Market potential is not merely influenced by consumer demand but also influenced by; *inter alia*, the characteristics of the node to be developed. Certain types of developments each have specific location requirements and should subsequently be assessed in terms of selected location criteria. To this effect, the site evaluation model is utilised.

Map 3.1: West Rand within Gauteng Context

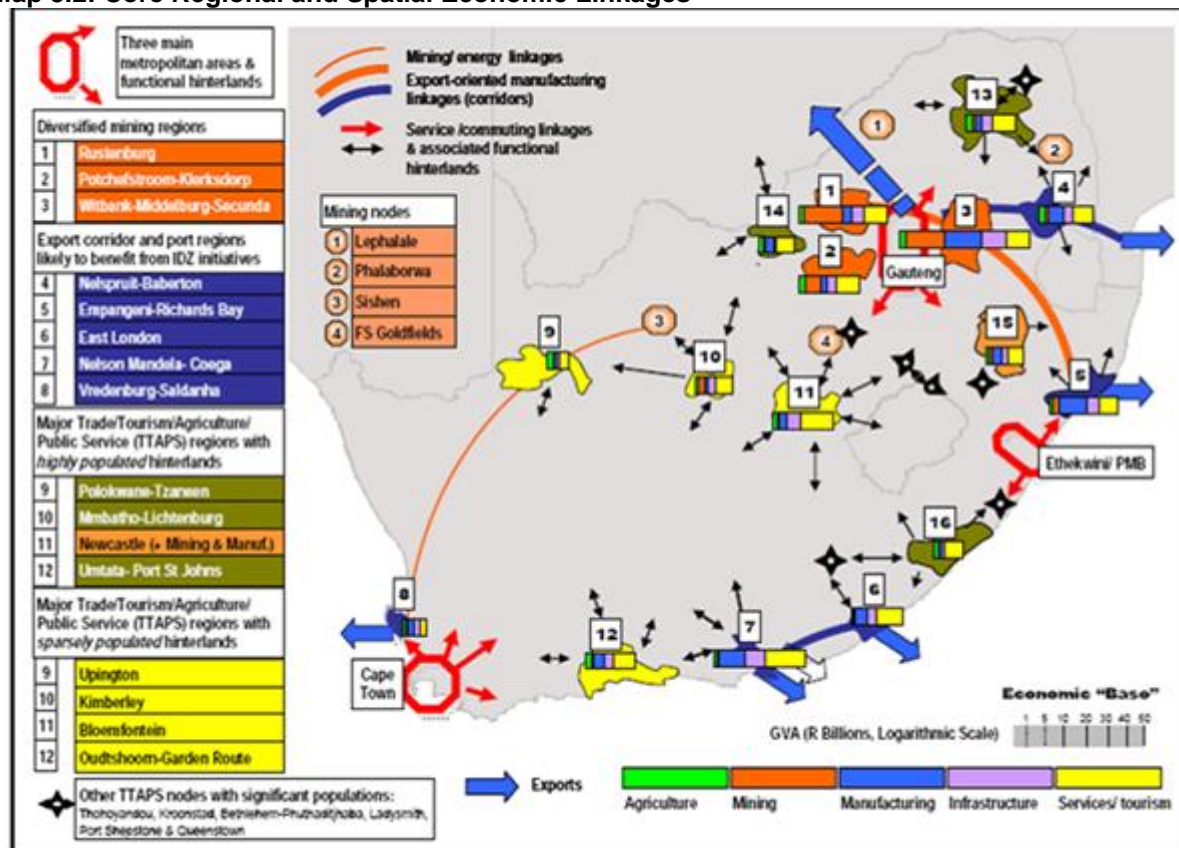


MACRO LEVEL

3.2 REGIONAL FIT

Manufacturing and industrial activities are located across South Africa with numerous railway and road linkages for import and export purposes. The map below illustrates the interrelated and connectedness of the manufacturing and industrial sectors.

Map 3.2: Core Regional and Spatial Economic Linkages



MESO LEVEL

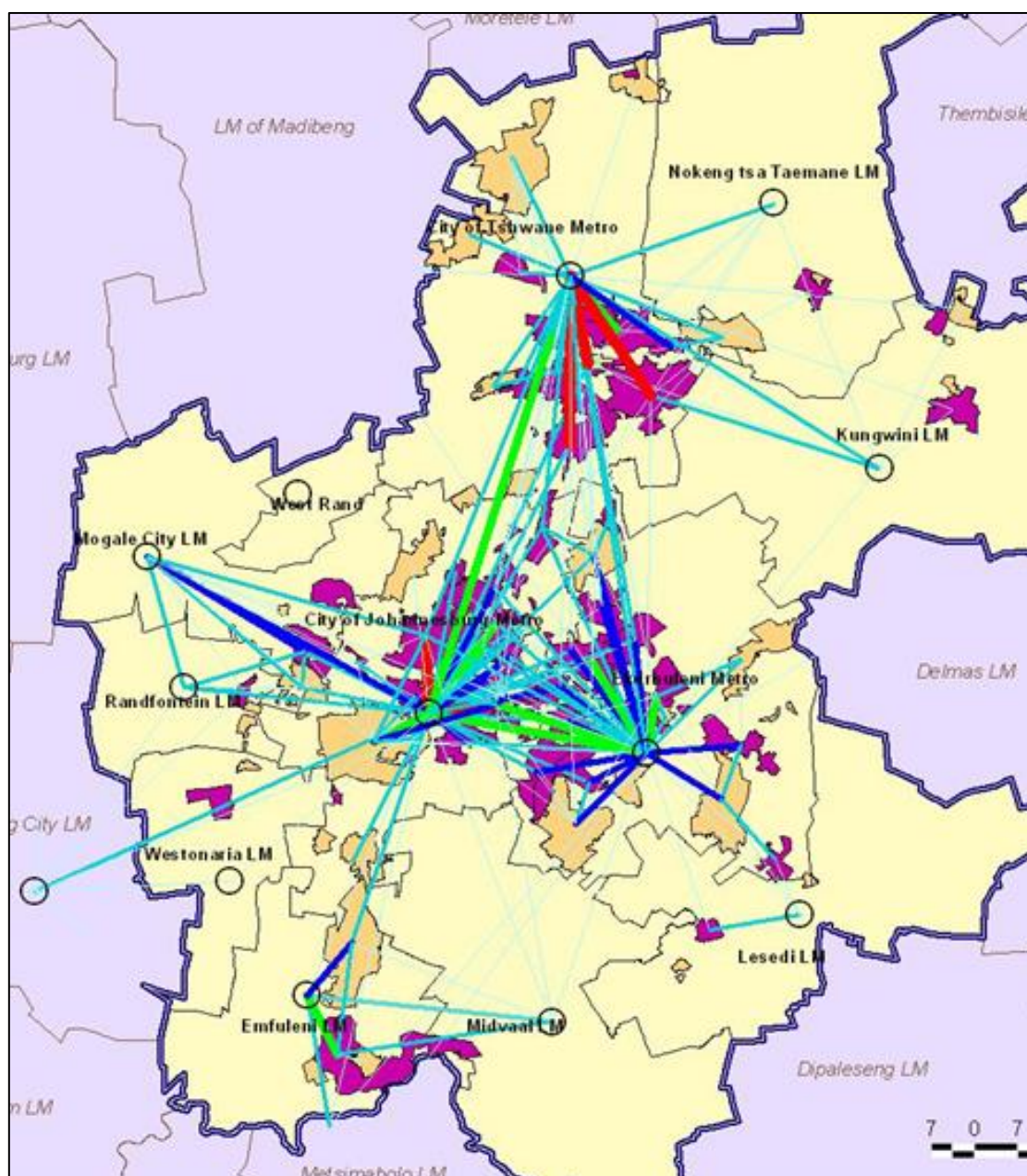
3.3 REGIONAL ROLE AND FUNCTION

Movement and Flow in Gauteng

Strong flows between economic activity areas and mainly residential areas in the areas of Johannesburg, Tshwane and Ekurhuleni. A fairly strong link also exists between the Greater Mogale City and Greater Johannesburg area with relatively much less significant links between the central area and Vereeniging / Vanderbijlpark in the south. The points indicated by circles on the map represent the rest of municipal area.

Functional integration of activities across the provincial space, and especially the more central areas is confirmed by the intensity and patterns of current flows within and beyond the province. The more central areas of economic activity exhibit the most intensive levels of current interaction.

Map 3.3: Flow in Gauteng Province



The flow patterns and volumes of Gauteng correlate with the preceding section which highlighted the various economic centres of Gauteng. From the flow in Gauteng it is reflected that the strongest linkages exist between Pretoria, Johannesburg, Boksburg / Benoni and to a lesser extent Mogale City. Peripheral / peri-urban areas such as Vereeniging and Bronkhorstspuit are accessed less frequently. These trends will impact the pattern and direction of new growth in the province.

Geospatial Layout

The Gauteng Spatial Development Perspective (GSDP) relies on demonstrated need and concentration of economic activity to map economic potential. The economic activity in the geospatial tourism destinations in Gauteng is not concentrated spatially and is therefore reflected separately. Leisure tourism for holidays and visiting friends and relatives constitutes 52.7% of foreign and 81% of domestic tourism.

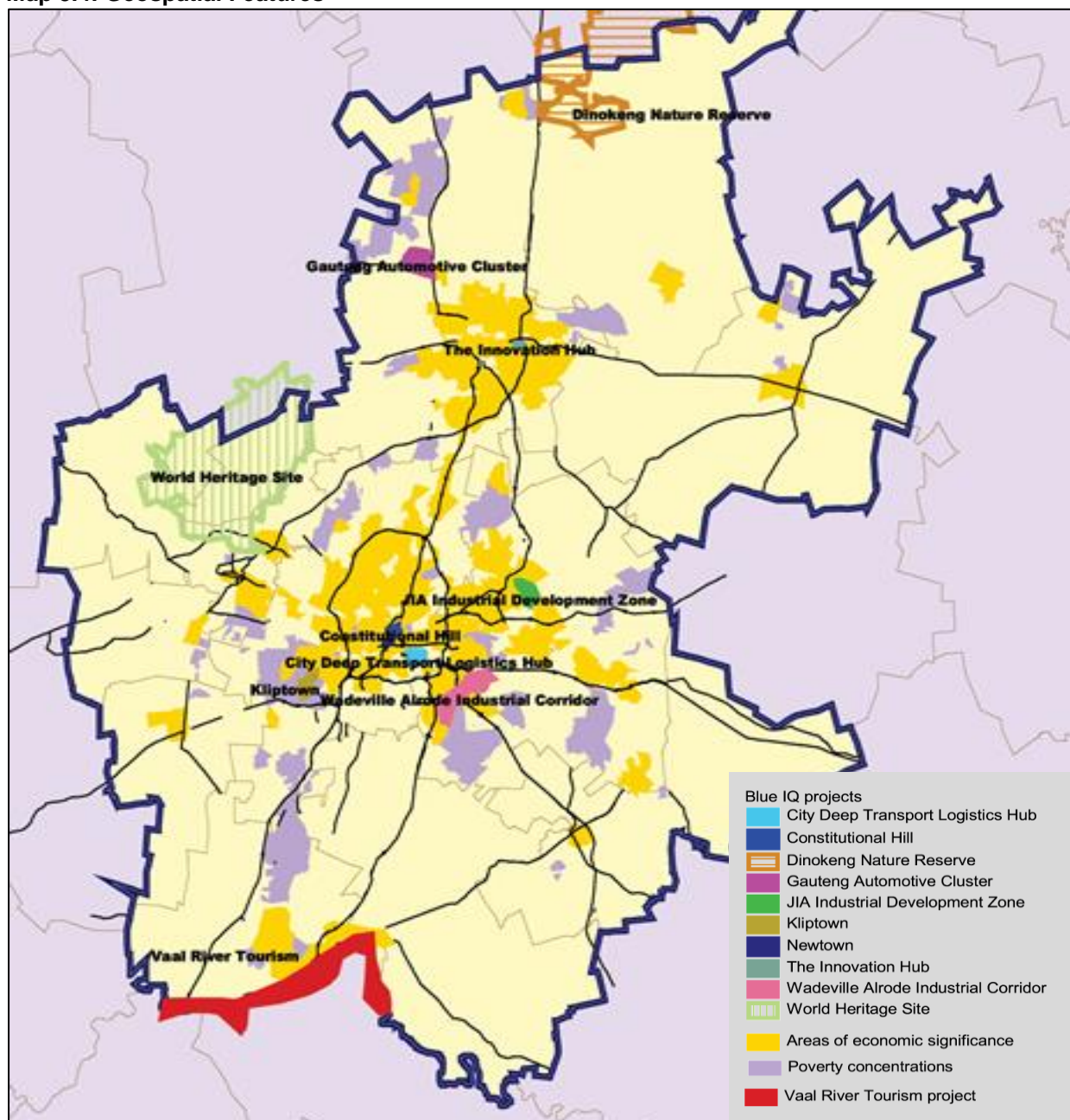
Gauteng's geospatial tourism destinations in the West Rand District Municipality (Cradle of Humankind World Heritage Site), Metsweding District Municipality (Dinokeng) and Sedibeng District Municipality (Vaal Dam) constitutes significant share of the leisure tourism economy in Gauteng with large numbers of tourism attractions in each areas with the largest number being in the Cradle of Humankind World Heritage Site and the smallest in the Vaal Dam area. These areas are therefore areas of economic potential supportive of economic growth and the improvement of livelihoods in the local economies in which they are located. The areas are priority economic potential areas

The Geospatial layout map (on the following page) provides a more detailed view of major features and activities in the Gauteng province including areas of economic significance, poverty concentrations and the various Blue IQ projects. These strategic projects are suggested to attract additional investment interest and catalyse new development in these areas.

Again it is evident that the geospatial layout corresponds with areas of economic significance and flow in Gauteng. Economic areas are concentrated in centres of Pretoria and Johannesburg with immediately surrounding areas being affected by poverty. This can be attributed to the demand for residential accommodation within proximity to employment opportunities.

Map 3.4 on the following page shows the geospatial features of Gauteng.

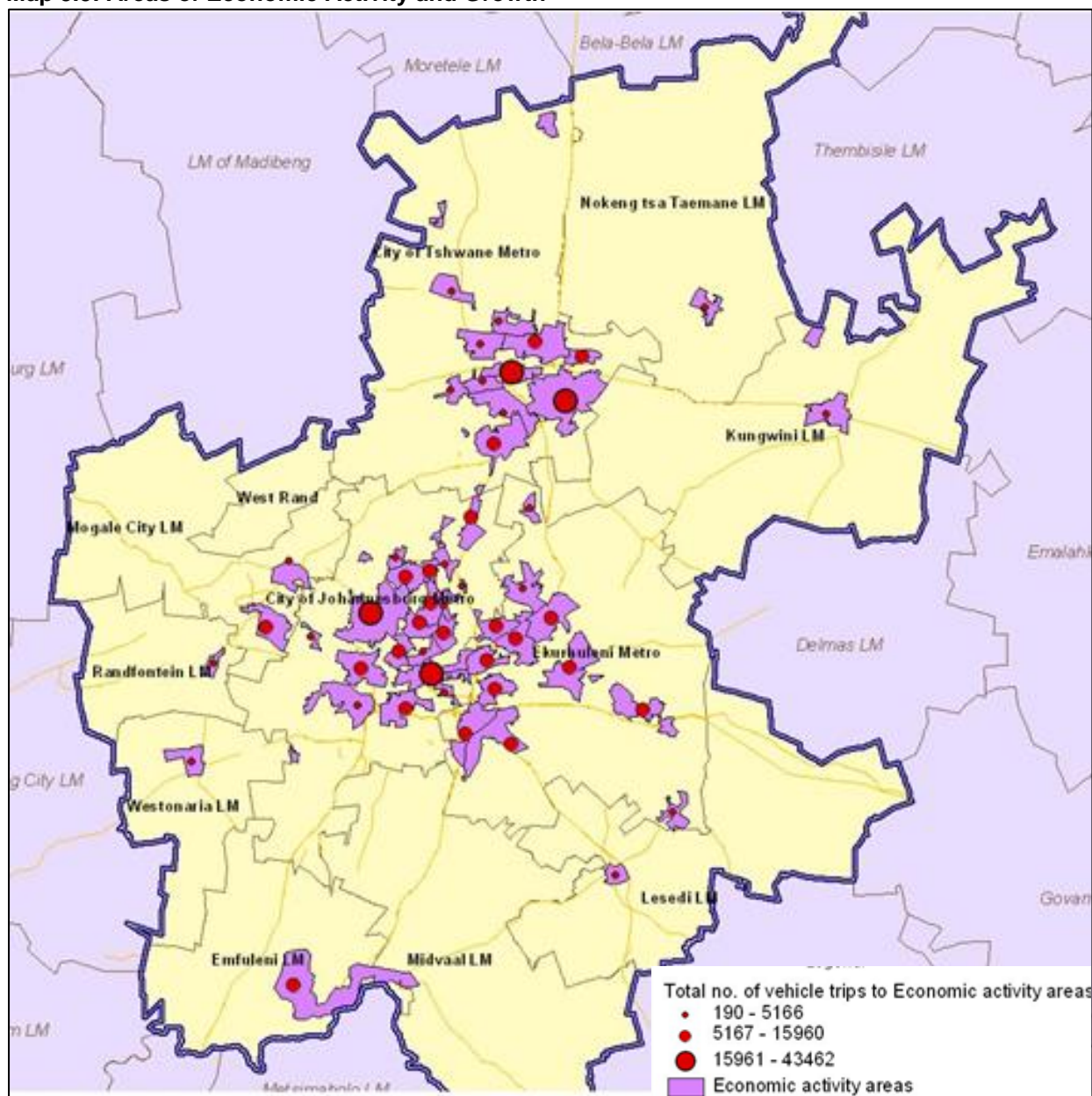
Map 3.4: Geospatial Features



Flows and Interaction Focus On Central Areas Of The Province

The Johannesburg and Pretoria CBD areas are the most significant destination points in morning peak hour trips, from all destinations. The only other economic activity areas attracting a similar number of trips are the Johannesburg North Western Suburbs and Pretoria Eastern Suburbs. (These four areas are also the top contributors to provincial GVA.) Economic activity areas attract 59,7% all morning peak hour trips. The parts of municipal areas not included in economic areas or poverty concentrations attract 38,9 % of all trips, indicating a high attraction value most likely in the form of employment in economic activity that is not spatially concentrated (e.g. domestic employment, farm labour, etc.). A very small percentage (just over 1%) of trips have destinations outside the province.

Map 3.5: Areas of Economic Activity and Growth



The preceding figure again highlights the importance of the Johannesburg, Pretoria and Ekurhuleni Metro in the province as these locations again have the most number of vehicle trips to them. The number of vehicle trips decrease as the distance from these economic concentration areas increase. Smaller economic areas also have less vehicle trips to them.

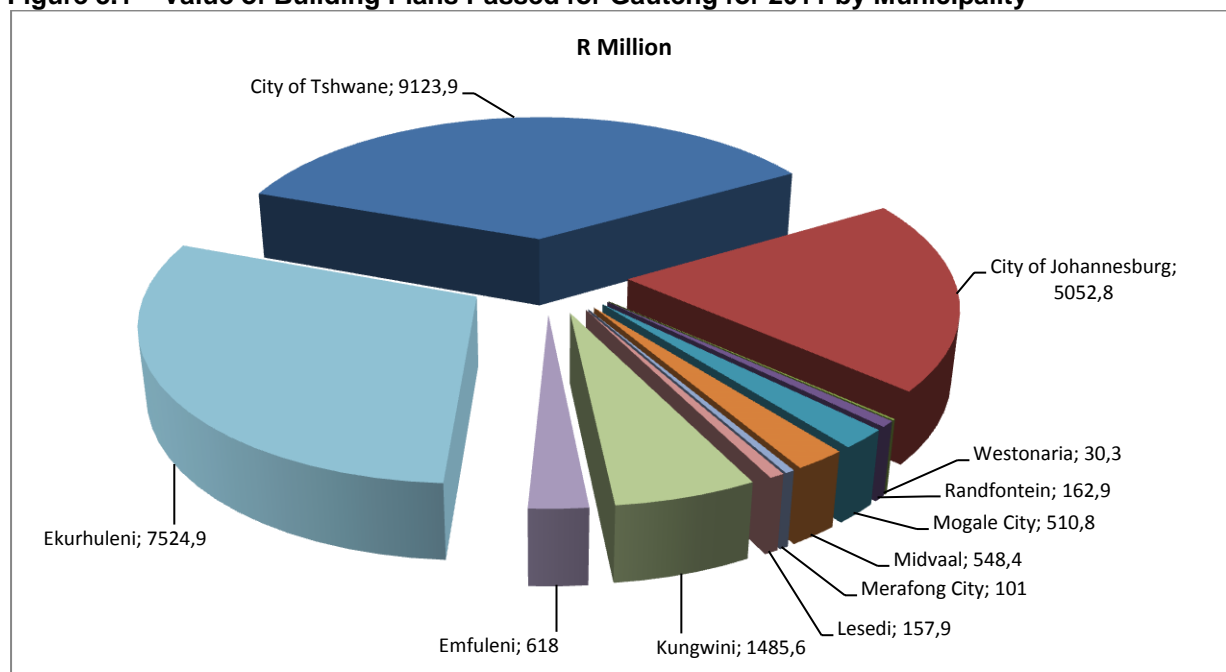
This aids in highlighting the area's most likely to experience the bulk of commercial and associated supporting development – thus also influencing the nature of development intervention for Vereeniging.

3.4 BUILDING ACTIVITY BY SECTOR AND AREA

➤ KEY FINDINGS REGARDING BUILDING PLANS PASSED FOR GAUTENG (2011)

City of Tshwane took the lead in recording the highest value for building plans passed for 2011, contributing 36,0% or R9 123,9 million to the total of R25 316,5 million reported for Gauteng, followed by Ekurhuleni Metropolitan Municipality (29,7% or R7 524,9 million) and City of Johannesburg (20,0% or R5 052,8 million)

Figure 3.1 – Value of Building Plans Passed for Gauteng for 2011 by Municipality



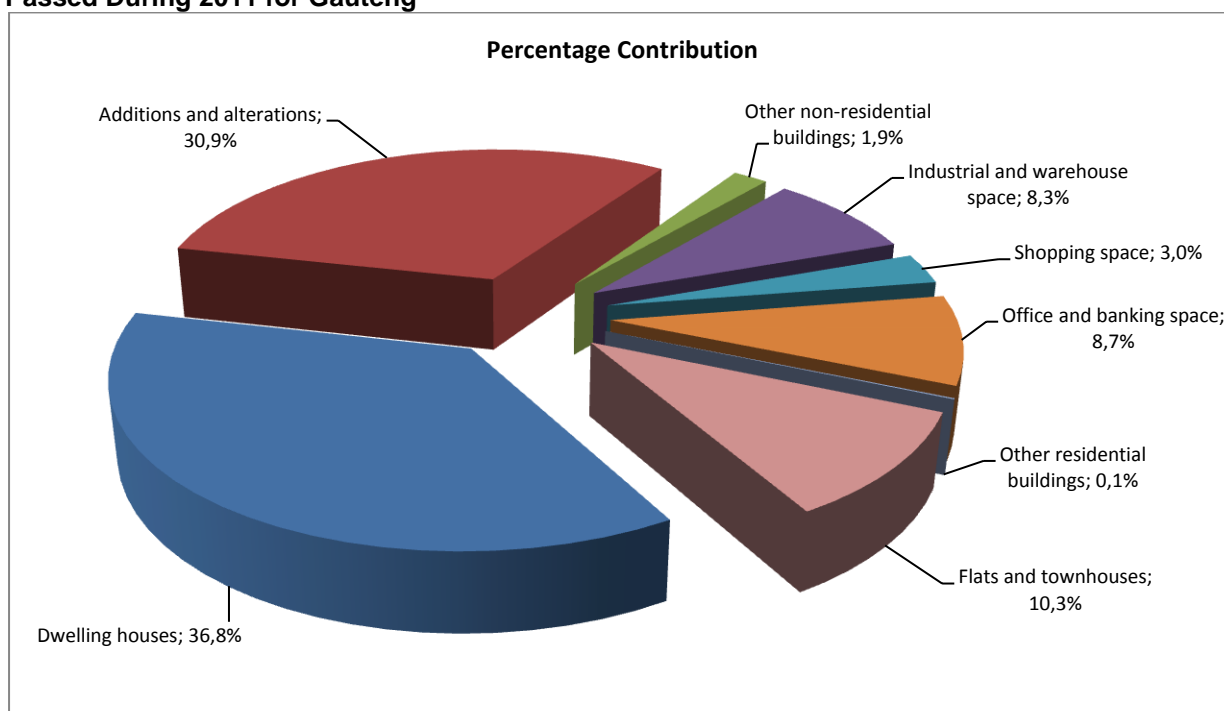
Source: Demacon ex StatsSA

The largest categories for residential building plans passed were dwelling-houses (36,8% or R9 306,6 million) and flats and townhouses (10,3% or R2 605,4 million). The main contributors to dwelling-houses were City of Tshwane (R3 065,1 million), Ekurhuleni Metropolitan Municipality (R2 886,6 million) and City of Johannesburg (R1 756,7 million). These three metropolitan municipalities also contributed the most to plans passed for flats and townhouses.

Additions and alterations contributed 30,9% or R7 818,5 million to the total value of building plans passed, mainly due to additions to dwelling-houses (R5 793,5 million).

The largest contributors to non-residential building plans passed were office and banking space (8,7% or R2 207,4 million of the total value of building plans passed), industrial and warehouse space (8,3% or R2 102,5 million) and shopping space (3,0% or R771,7 million). The main contributor to office and banking space was City of Tshwane (R1 440,7 million).

Figure 3.2 – Percentage Contribution by Type of Building to the Total Value of Building Plans Passed During 2011 for Gauteng

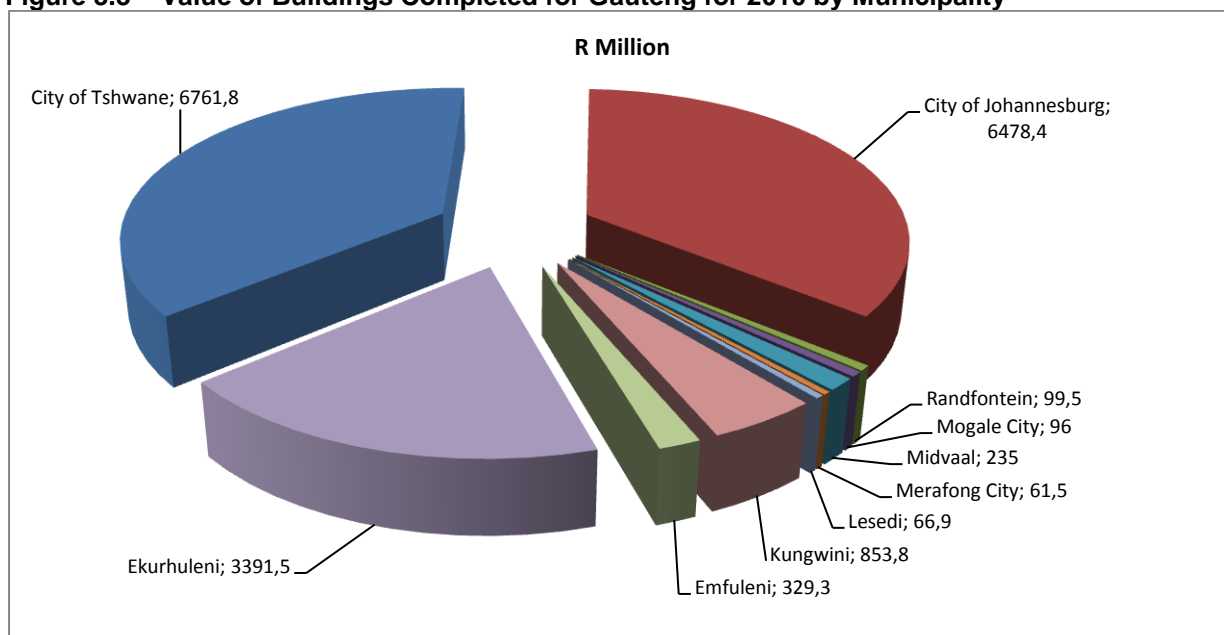


Source: Demacon ex StatsSA

➤ KEY FINDINGS REGARDING BUILDINGS COMPLETED FOR GAUTENG (2011)

The total value of buildings completed during 2011 for Gauteng amounted to R18 373,8 million, of which 36,8% or R6 761,8 million was recorded as completed for City of Tshwane, 35,3% or R6 478,4 million for City of Johannesburg and 18,5% or R3 391,5 million for Ekurhuleni Metropolitan Municipality.

Figure 3.3 – Value of Buildings Completed for Gauteng for 2010 by Municipality



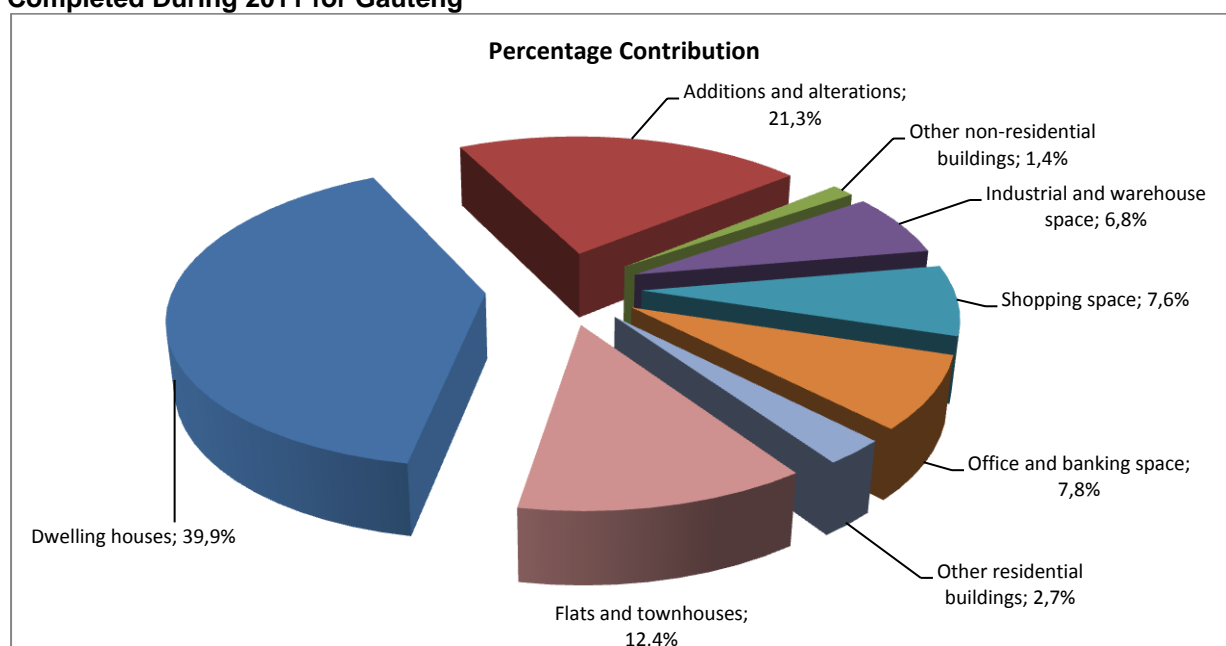
Source: Demacon ex StatsSA

The value of dwelling-houses and flats and townhouses completed in Gauteng during 2011 contributed 39,9% or R7 331,7 million and 12,4% or R2 281,9 million respectively to the total

value of buildings completed. The highest value for dwelling-houses completed was reported for City of Tshwane (R2 477,3 million), followed by City of Johannesburg (R2 321,2 million) and Ekurhuleni Metropolitan Municipality (R1 496,1 million).

Regarding flats and townhouses, City of Tshwane recorded the completion of buildings to the value R855,7 million, followed by City of Johannesburg (R592,2 million) and Ekurhuleni Metropolitan Municipality (R568,2 million). The main categories of non-residential buildings which made noteworthy contributions to the total value of buildings completed for Gauteng were office and banking space (7,8% or R1 432,2 million), shopping space (7,6% or R1 393,8 million) and industrial and warehouse space (6,8% or R1 255,7 million).

Figure 3.4 – Percentage Contribution by Type of Building to the Total Value of Buildings Completed During 2011 for Gauteng



Source: Demacon ex StatsSA

The following table indicate the buildings reported as completed within the *West Rand Local Municipal* area, in terms of industrial buildings and warehousing.

➤ INDUSTRIAL AND WAREHOUSING PLANS

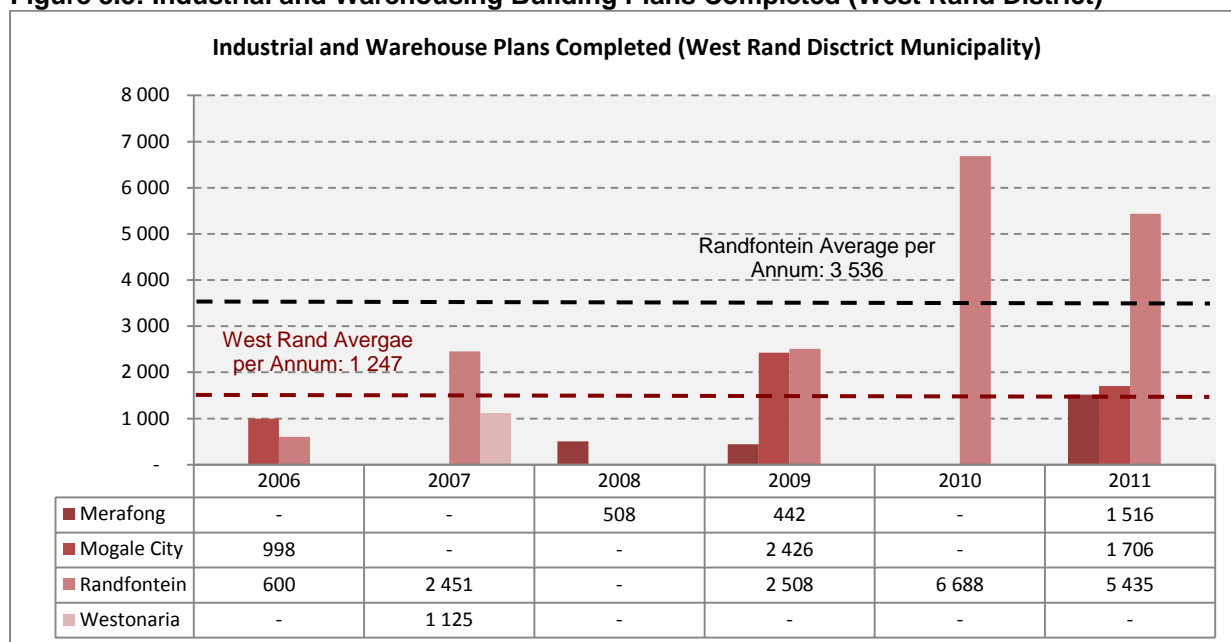
The following table is a summary of the industrial and warehousing building plans *completed* for the four local municipalities within the West Rand from 2006 to 2011.

Table 3.1: Industrial and Warehousing Building Plans Completed (West Rand District)

Local Municipality	2006	2007	2008	2009	2010	2011
Merafong City	-	-	508	442	-	1 516
Mogale City	998	-	-	2 426	-	1 706
Randfontein	600	2 451	900	2 508	6 688	5 435
Westonaria	-	1 125	-	-	-	-

Source: Demacon Ex. Stats SA, 2013

The following figure illustrates the industrial and warehousing building plans completed for the four local municipalities within the West Rand.

Figure 3.5: Industrial and Warehousing Building Plans Completed (West Rand District)

Source: Demacon Ex. Stats SA, 2013

Findings (Figure 3.5):

- ✓ Although some time series data are missing for some of some the local municipalities, it is clear that the Randfontein Local Municipality had the strongest growth in terms of industrial and warehousing buildings completed between 2006 and 2011.
- ✓ The average number of buildings completed for the West Rand is 1 247 buildings per annum of which the average for the Randfontein Local Municipality is 3 536 per annum.
- ✓ On average, most building plans for the West Rand were completed during 2011.

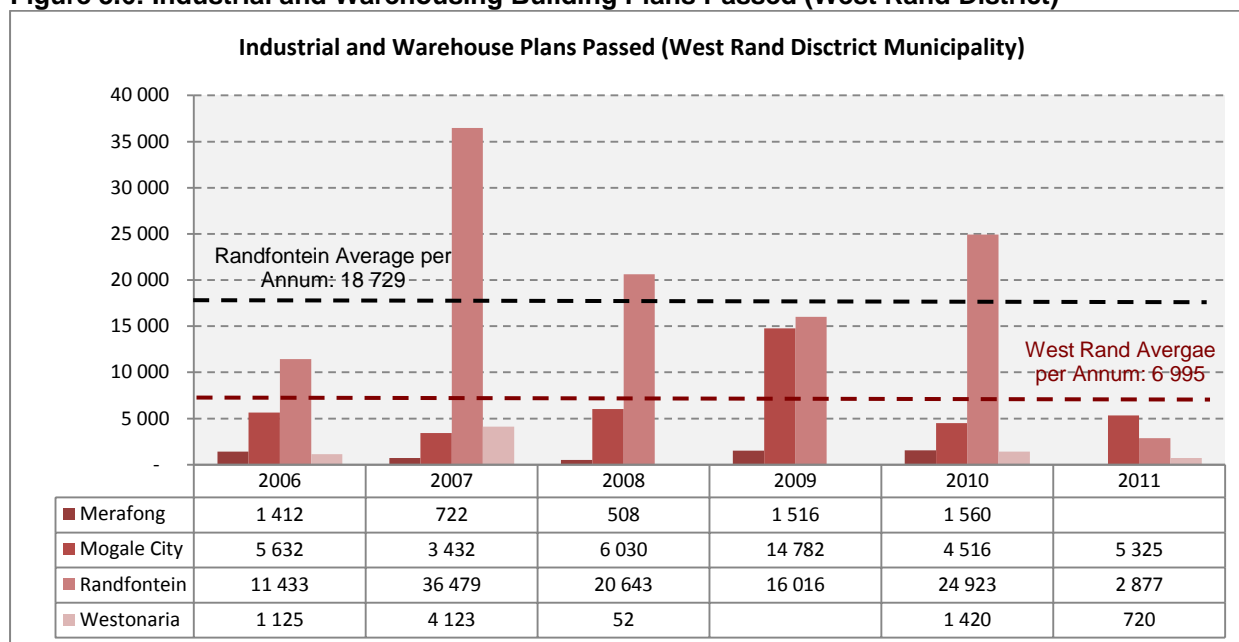
The following table is a summary of the total number of industrial and warehousing building plans passed for the West Rand District municipality between 2006 and 2011.

Table 3.2: Industrial and Warehousing Building Plans Passed (West Rand District Municipality)

Local Municipality	2006	2007	2008	2009	2010	2011
Merafong City	-	-	508	442	-	1 516
Mogale City	998	-	-	2 426	-	1 706
Randfontein	600	2 451	900	2 508	6 688	5 435
Westonaria	-	1 125	-	-	-	-

Source: Demacon Ex. Stats SA, 2013

The following figure illustrates the industrial and warehousing building plans passes for the four local municipalities within the West Rand.

Figure 3.6: Industrial and Warehousing Building Plans Passed (West Rand District)

Source: Demacon Ex. Stats SA, 2013

Findings (Figure 3.5):

- ✓ The above table and figure indicates that the greatest number of industrial and warehousing building plans passed between 2006 and 2011 were within the Randfontein Local Municipality.
- ✓ On average, 6 995 industrial and warehousing building plans are passed per annum in the West Rand, of which, on average 18 729 industrial and warehousing building plans are passed per annum in the Randfontein Local Municipality.
- ✓ The most industrial applications and development occur within the Randfontein Local Municipality.

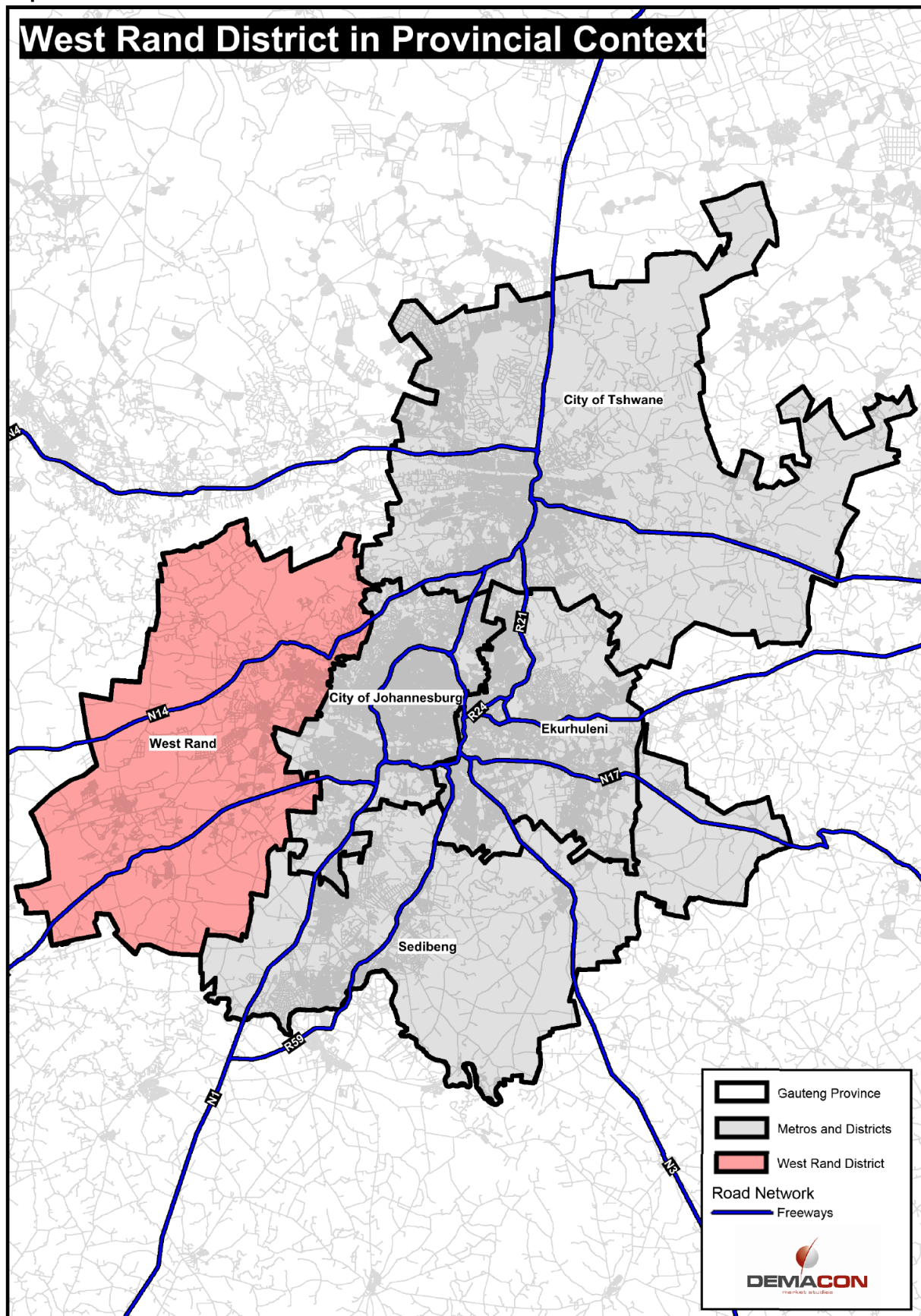
Development Implications

- ✓ The average number of buildings *passed* for the West Rand is 1 247 buildings per annum of which the average for the Randfontein Local Municipality is 3 536 per annum.
- ✓ The most industrial and warehousing building plans passed and completed between 2006 and 2011 were within the Randfontein Local Municipality.

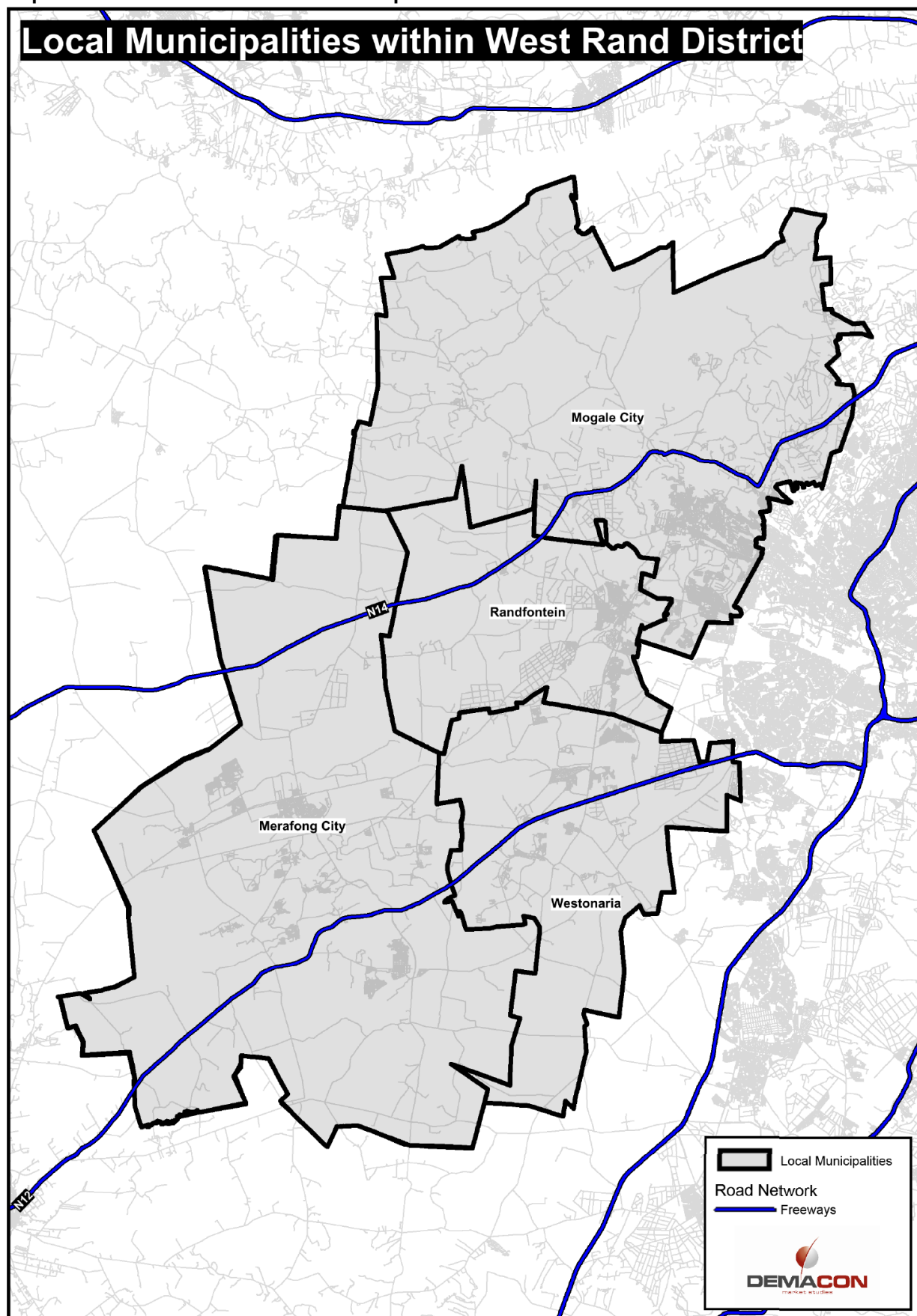
MICRO LEVEL

The West Rand district Municipality is Located within the Gauteng Province and consist of four local municipalities, Randfontein, Mogale City, Merafong City and Westonaria. See map on overleaf. The following maps indicated the West Rand District within the provincial context and the four local municipalities.

Map 3.1: West Rand Provincial Context



Map 3.2: West Rand District Local Municipalities



Historically, Gauteng (and the West Rand) has been built on the Gold industry. Mines, mining houses and the related industries thrive in this province. There are approximately 159 mines – of which 44 of them gold mines - in Gauteng that together produce a quarter of South Africa's total mineral production. Most of the mining is for gold - 80% of Gauteng's output.

One of the most important aquifers in South Africa is the dolomitic aquifer of the West Rand and Far West Rand area. Due to the anthropogenic influences from both mining and industrial sources, this aquifer is increasingly under threat of becoming a vast unexploitable reserve of no use as a groundwater resource. The gold-bearing reefs contain an array of minerals such as native gold, uranium oxides, traces of platinum and an array of sulphide minerals with pyrite being the most abundant. Most of the mines have produced uranium as well as gold.

Gold mining is the principle economic activity in the West Rand and Far West Rand regions. This industry is the basis of the economy and socio-economic development of the region. Gold mining on the West Wits Line contains of the biggest and richest mines in the entire Witwatersrand basin. Unfortunately, associated with all the economic and social benefits arising from gold mining there are several negative impacts on the environment.

In order to discuss the industrial development in the West Rand, the history behind the development of the area gives a background understanding of why this area has developed over the years.

Merafong City: Merafong's historical development is closely knit with the discovery of rich gold reefs in the early nineteen thirties. The three towns of *Carletonville*, *Fochville* and *Wedela* each developed as individual entities with their own characteristics. *Fochville* is the oldest unit, established by two residents, Messer's Wulfson and Horvitch and was declared a town in 1951. A mine engineer from a gold mining company Gold Fields, Guy Carleton Jones, played a prominent role in the discovery of the so-called West Wits line Gold Reef, of which *Carletonville* forms part. The town *Carletonville* was named after him. As a result of the strategic location and already developed Oberholzer district, the Gold Fields Mine Group decided in November 1946 to establish a town. Carletonville was proclaimed in 1948 and attained Town Council Status on 1 July 1959. *Wedela* was established as a mining village, many years later in December 1978, by Mr. Harry Oppenheimer. The town is situated between Western Deep Levels and Elandsrand Gold Mine. The town's name is derived from the prefixes of the two mines, namely the Wed of Western Deep Levels and the -ela of Elandsrand. Municipal status was granted to Wedela on 1 January 1990. Attached to Fochville and Carletonville are also the towns of Khutsong, Kokosi and Greenspark, Welverdiend, and Blybank

Mogale City: Mogale City is named after Mogale wa Mogale, who took over the Po Chiefdom following the death of his father in the 1820s at the hands of Mzilikazi's warriors. The Batswana ba Po was one of the original tribes that inhabited the region. They were miners and traders of gold, with links to other peoples across the continent. The contribution made by the chief and his people was long ignored, but in 2001 their status was restored with the renaming of the municipality from Krugersdorp Local Council to Mogale City. Mogale was formerly a mining city founded in 1887 by Marthinus Pretorius and named after Paul Kruger. Apart from gold, manganese, iron, asbestos and lime are also mined in the area. This is the site of the December 1880 gathering at which more than 6,000 men vowed to fight for the Transvaal's independence. When gold was discovered on the Witwatersrand, a need arose for a major town in the west of the reef. The government bought part of the farm Paardekraal and named the new town after the Transvaal President Paul Kruger. The British built a concentration camp here during the Second Boer War to house Boer women and children. In 1952 the West Rand Consolidated Mine was the first in the world to extract

uranium as a by-product of the gold refining process. Mogale City includes Krugersdorp, Azaadville, Munsieville, Kagiso, Tarlton, Hekpoort and surrounds, stretching into Magaliesberg.

Randfontein: Randfontein emerged as a gold mining town during the late 1800s. With the Witwatersrand gold rush in full swing, mining financier JB Robinson bought the farm Randfontein and, in 1889, floated the Randfontein Estates Gold Mining Company. The town was established in 1890 to serve the new mine and was administered by Krugersdorp until it became a municipality in 1929. Apart from having the largest stamp mill in the world (used in early paper making for preparing the pulp), Randfontein, like many of the other outlying areas of Johannesburg, is essentially a rural collection of farms and small holdings in a particularly beautiful part of Gauteng. Randfontein includes Mohlakeng and Toekomsrus.

Westonaria: Westonaria was proclaimed in 1938 as a result of all the mining activities that took place in this area since 1910 when the first shaft – Pullinger Shaft was sunk. Venterspost town was proclaimed in 1937; Hillshaven, Glenharvie, Waterpan and Libanon were mainly established as mining residential areas. Westonaria Local Municipality is providing services to these areas. Zuurbekom is mainly earmarked for agricultural purposes. Bekkersdal was established in 1945 and administered under Westonaria Town Council; Simunye Proper is situated next to the R28 and Simunye Extension 2 (Phases 1 – 4) was developed for the development of the Presidential RDP project. Westonaria is situated amidst gold fields and forms the nucleus of five gold mines. The town is approximately 45 km from Johannesburg and is accessible by road and rail making it convenient for commuters to Johannesburg. The greater Westonaria consists of a number of satellite towns, being – Westonaria, Hillshaven, Glenharvie, Venterspost, Libanon, Waterpan, Bekkersdal and Simunye.

3.5 LOCATION ASSESSMENT BY AREA

The West Rand district municipality is located within the Gauteng province and consist of four local municipalities, including Merafong City, Mogale City, Randfontein and Westonaria.

Note: The industrial nodes are analysed in great detail in the individual industrial reports.

3.5.1 MOGALE CITY LOCAL MUNICIPALITY

Following is the industrial node site assessment of the Boltonia, Chamdor, Delporton, Fatoria, Fariaville, Muldersdrift and Nooitgedach industrial nodes located within the Mogale City Local Municipality.

➤ **BOLTONIA****Table 3.3: Boltonia Industrial Node Site Assessment**

	Grade 1-10	Weight 1-5	Points
Address Value	7	3	21
Accessibility	7	5	35
Visibility	6	4	24
Proximity to Key Transport Infrastructure - Airport, Port, Railway	7	5	35
Proximity to freeways	7	5	35
Centrality to Market Area	6	5	30
Agglomeration Potential and Valeu Chain Expansion	7	4	28
Functional and Complimentary Uses	6	4	24
Absence of Competitive Products - Market Gap	7	4	28
Proximity to Labour Force - unskilled, semi-skilled and skilled	8	4	32
Available Infrastructure	8	4	32
Availability of Land	7	3	21
Future Expansion Potential	7	4	28
Perceived Level of Security	7	4	28
Located in Direct Line of Growth	7	4	28
National Policy Alignment	7	4	28
Total			457
Score			69,2%

Source: Demacon, 2013

* **Note:** 80%+ indicates an exceptional site rating; a site rating of 70 – 80% is high and indicates that most important fundamentals for a successful development are in place; a rating of 60 – 70% indicates some critical factors may be lacking but could possibly be addressed; projects with a sub 60% rating are not recommended for consideration.

➤ **CHAMDOR****Table 3.4: Chamdor Industrial Node Site Assessment**

	Grade 1-10	Weight 1-5	Points
Address Value	8	3	24
Accessibility	8	5	40
Visibility	7	4	28
Proximity to Key Transport Infrastructure - Airport, Port, Railway	7	5	35
Proximity to freeways	7	5	35
Centrality to Market Area	7	5	35
Agglomeration Potential and Valeu Chain Expansion	7	4	28
Functional and Complimentary Uses	7	4	28
Absence of Competitive Products - Market Gap	7	4	28
Proximity to Labour Force - unskilled, semi-skilled and skilled	9	4	36
Available Infrastructure	8	4	32
Availability of Land	8	3	24
Future Expansion Potential	7	4	28
Perceived Level of Security	7	4	28
Located in Direct Line of Growth	7	4	28
National Policy Alignment	7	4	28
Total			485
Score			73,5%

Source: Demacon, 2013

* **Note:** 80%+ indicates an exceptional site rating; a site rating of 70 – 80% is high and indicates that most important fundamentals for a successful development are in place; a rating of 60 – 70% indicates some critical factors may be lacking but could possibly be addressed; projects with a sub 60% rating are not recommended for consideration.

➤ **DELPORTON****Table 3.5: Delporton Industrial Node Site Assessment**

	Grade 1-10	Weight 1-5	Points
Address Value	7	3	21
Accessibility	7	5	35
Visibility	7	4	28
Proximity to Key Transport Infrastructure - Airport, Port, Railway	9	5	45
Proximity to freeways	7	5	35
Centrality to Market Area	7	5	35
Agglomeration Potential and Valeu Chain Expansion	7	4	28
Functional and Complimentary Uses	7	4	28
Absence of Competitive Products - Market Gap	7	4	28
Proximity to Labour Force - unskilled, semi-skilled and skilled	8	4	32
Available Infrastructure	8	4	32
Availability of Land	8	3	24
Future Expansion Potential	8	4	32
Perceived Level of Security	7	4	28
Located in Direct Line of Growth	7	4	28
National Policy Alignment	7	4	28
Total			487
Score			73,8%

Source: Demacon, 2013

* **Note:** 80%+ indicates an exceptional site rating; a site rating of 70 – 80% is high and indicates that most important fundamentals for a successful development are in place; a rating of 60 – 70% indicates some critical factors may be lacking but could possibly be addressed; projects with a sub 60% rating are not recommended for consideration.

➤ **FACTORIA****Table 3.6: Factoria Industrial Node Site Assessment**

	Grade 1-10	Weight 1-5	Points
Address Value	7	3	21
Accessibility	7	5	35
Visibility	7	4	28
Proximity to Key Transport Infrastructure - Airport, Port, Railway	7	5	35
Proximity to freeways	7	5	35
Centrality to Market Area	7	5	35
Agglomeration Potential and Valeu Chain Expansion	7	4	28
Functional and Complimentary Uses	7	4	28
Absence of Competitive Products - Market Gap	7	4	28
Proximity to Labour Force - unskilled, semi-skilled and skilled	8	4	32
Available Infrastructure	8	4	32
Availability of Land	6	3	18
Future Expansion Potential	6	4	24
Perceived Level of Security	7	4	28
Located in Direct Line of Growth	7	4	28
National Policy Alignment	7	4	28
Total			463
Score			70,2%

Source: Demacon, 2013

* **Note:** 80%+ indicates an exceptional site rating; a site rating of 70 – 80% is high and indicates that most important fundamentals for a successful development are in place; a rating of 60 – 70% indicates some critical factors may be lacking but could possibly be addressed; projects with a sub 60% rating are not recommended for consideration.

➤ **MULDERSDRIFT****Table 3.7: Muldersdrift Industrial Node Site Assessment**

	Grade 1-10	Weight 1-5	Points
Address Value	9	3	27
Accessibility	9	5	45
Visibility	9	4	36
Proximity to Key Transport Infrastructure - Airport, Port, Railway	8	5	40
Proximity to freeways	9	5	45
Centrality to Market Area	8	5	40
Agglomeration Potential and Valeu Chain Expansion	8	4	32
Functional and Complimentary Uses	8	4	32
Absence of Competitive Products - Market Gap	8	4	32
Proximity to Labour Force - unskilled, semi-skilled and skilled	8	4	32
Available Infrastructure	8	4	32
Availability of Land	9	3	27
Future Expansion Potential	9	4	36
Perceived Level of Security	7	4	28
Located in Direct Line of Growth	8	4	32
National Policy Alignment	8	4	32
Total			548
Score			83,0%

Source: Demacon, 2013

* **Note:** 80%+ indicates an exceptional site rating; a site rating of 70 – 80% is high and indicates that most important fundamentals for a successful development are in place; a rating of 60 – 70% indicates some critical factors may be lacking but could possibly be addressed; projects with a sub 60% rating are not recommended for consideration.

➤ **NOOITGEDACTH****Table 3.8: Nooitgedacth Industrial Node Site Assessment**

	Grade 1-10	Weight 1-5	Points
Address Value	9	3	27
Accessibility	9	5	45
Visibility	9	4	36
Proximity to Key Transport Infrastructure - Airport, Port, Railway	8	5	40
Proximity to freeways	9	5	45
Centrality to Market Area	8	5	40
Agglomeration Potential and Valeu Chain Expansion	8	4	32
Functional and Complimentary Uses	8	4	32
Absence of Competitive Products - Market Gap	8	4	32
Proximity to Labour Force - unskilled, semi-skilled and skilled	8	4	32
Available Infrastructure	8	4	32
Availability of Land	8	3	24
Future Expansion Potential	8	4	32
Perceived Level of Security	7	4	28
Located in Direct Line of Growth	7	4	28
National Policy Alignment	7	4	28
Total			533
Score			80,8%

Source: Demacon, 2013

* **Note:** 80%+ indicates an exceptional site rating; a site rating of 70 – 80% is high and indicates that most important fundamentals for a successful development are in place; a rating of 60 – 70% indicates some critical factors may be lacking but could possibly be addressed; projects with a sub 60% rating are not recommended for consideration.

3.5.2 MERAUFONG CITY LOCAL MUNICIPALITY

Following is the industrial node site assessment of the Carletonville Ext 6, Oberholzer, Fochville and Losberg industrial nodes located within the Merafong City Local Municipality.

➤ CARLETONVILLE EXT 6

Table 3.9: Carletonville Ext 6 Industrial Node Site Assessment

	Grade 1-10	Weight 1-5	Points
Address Value	7	3	21
Accessibility	7	5	35
Visibility	7	4	28
Proximity to Key Transport Infrastructure - Airport, Port, Railway	7	5	35
Proximity to freeways	7	5	35
Centrality to Market Area	7	5	35
Agglomeration Potential and Value Chain Expansion	7	4	28
Functional and Complimentary Uses	7	4	28
Absence of Competitive Products - Market Gap	7	4	28
Proximity to Labour Force - unskilled, semi-skilled and skilled	8	4	32
Available Infrastructure	8	4	32
Availability of Land	9	3	27
Future Expansion Potential	9	4	36
Perceived Level of Security	7	4	28
Located in Direct Line of Growth	7	4	28
National Policy Alignment	7	4	28
Total			484
Score			73,3%

Source: Demacon, 2013

* **Note:** 80%+ indicates an exceptional site rating; a site rating of 70 – 80% is high and indicates that most important fundamentals for a successful development are in place; a rating of 60 – 70% indicates some critical factors may be lacking but could possibly be addressed; projects with a sub 60% rating are not recommended for consideration.

➤ OBERHOLZER

Table 3.10: Oberholzer Industrial Node Site Assessment

	Grade 1-10	Weight 1-5	Points
Address Value	7	3	21
Accessibility	8	5	40
Visibility	7	4	28
Proximity to Key Transport Infrastructure - Airport, Port, Railway	8	5	40
Proximity to freeways	8	5	40
Centrality to Market Area	7	5	35
Agglomeration Potential and Valeu Chain Expansion	7	4	28
Functional and Complimentary Uses	7	4	28
Absence of Competitive Products - Market Gap	7	4	28
Proximity to Labour Force - unskilled, semi-skilled and skilled	8	4	32
Available Infrastructure	8	4	32
Availability of Land	8	3	24
Future Expansion Potential	6	4	24
Perceived Level of Security	7	4	28
Located in Direct Line of Growth	7	4	28
National Policy Alignment	7	4	28
Total			484
Score			73,3%

Source: Demacon, 2013

* **Note:** 80%+ indicates an exceptional site rating; a site rating of 70 – 80% is high and indicates that most important fundamentals for a successful development are in place; a rating of 60 – 70% indicates some critical factors may be lacking but could possibly be addressed; projects with a sub 60% rating are not recommended for consideration.

➤ FOCHVILLE

Table 3.11: Fochville Industrial Node Site Assessment

	Grade 1-10	Weight 1-5	Points
Address Value	7	3	21
Accessibility	8	5	40
Visibility	8	4	32
Proximity to Key Transport Infrastructure - Airport, Port, Railway	7	5	35
Proximity to freeways	8	5	40
Centrality to Market Area	7	5	35
Agglomeration Potential and Valeu Chain Expansion	7	4	28
Functional and Complimentary Uses	7	4	28
Absence of Competitive Products - Market Gap	7	4	28
Proximity to Labour Force - unskilled, semi-skilled and skilled	8	4	32
Available Infrastructure	8	4	32
Availability of Land	8	3	24
Future Expansion Potential	7	4	28
Perceived Level of Security	7	4	28
Located in Direct Line of Growth	7	4	28
National Policy Alignment	7	4	28
Total			487
Score			73,8%

Source: Demacon, 2013

* **Note:** 80%+ indicates an exceptional site rating; a site rating of 70 – 80% is high and indicates that most important fundamentals for a successful development are in place; a rating of 60 – 70% indicates some critical factors may be lacking but could possibly be addressed; projects with a sub 60% rating are not recommended for consideration.

➤ **LOSBERG****Table 3.12: Losberg Industrial Node Site Assessment**

	Grade 1-10	Weight 1-5	Points
Address Value	7	3	21
Accessibility	8	5	40
Visibility	8	4	32
Proximity to Key Transport Infrastructure - Airport, Port, Railway	8	5	40
Proximity to freeways	8	5	40
Centrality to Market Area	7	5	35
Agglomeration Potential and Valeu Chain Expansion	7	4	28
Functional and Complimentary Uses	7	4	28
Absence of Competitive Products - Market Gap	7	4	28
Proximity to Labour Force - unskilled, semi-skilled and skilled	8	4	32
Available Infrastructure	8	4	32
Availability of Land	8	3	24
Future Expansion Potential	8	4	32
Perceived Level of Security	7	4	28
Located in Direct Line of Growth	7	4	28
National Policy Alignment	7	4	28
Total			496
Score			75,2%

Source: Demacon, 2013

* **Note:** 80%+ indicates an exceptional site rating; a site rating of 70 – 80% is high and indicates that most important fundamentals for a successful development are in place; a rating of 60 – 70% indicates some critical factors may be lacking but could possibly be addressed; projects with a sub 60% rating are not recommended for consideration.

3.5.3 RANDFONTEIN LOCAL MUNICIPALITY

Following is the industrial node site assessment of the Aureus Node located within the Randfontein Local Municipality.

➤ **AUREUS****Table 3.13: Aureus Industrial Node Site Assessment**

	Grade 1-10	Weight 1-5	Points
Address Value	8	3	24
Accessibility	9	5	45
Visibility	8	4	32
Proximity to Key Transport Infrastructure - Airport, Port, Railway	7	5	35
Proximity to freeways	8	5	40
Centrality to Market Area	7	5	35
Agglomeration Potential and Valeu Chain Expansion	7	4	28
Functional and Complimentary Uses	8	4	32
Absence of Competitive Products - Market Gap	7	4	28
Proximity to Labour Force - unskilled, semi-skilled and skilled	9	4	36
Available Infrastructure	8	4	32
Availability of Land	8	3	24
Future Expansion Potential	7	4	28
Perceived Level of Security	7	4	28
Located in Direct Line of Growth	7	4	28
National Policy Alignment	8	4	32

Total			507
Score			76,8%

Source: Demacon, 2013

* **Note:** 80%+ indicates an exceptional site rating; a site rating of 70 – 80% is high and indicates that most important fundamentals for a successful development are in place; a rating of 60 – 70% indicates some critical factors may be lacking but could possibly be addressed; projects with a sub 60% rating are not recommended for consideration.

3.5.4 WESTONARIA LOCAL MUNICIPALITY

Following is the industrial node site assessment of the Westonaria Node located within the Westonaria Local Municipality.

➤ WESTONARIA

Table 3.14: Westonaria Industrial Node Site Assessment

	Grade 1-10	Weight 1-5	Points
Address Value	8	3	24
Accessibility	9	5	45
Visibility	7	4	28
Proximity to Key Transport Infrastructure - Airport, Port, Railway	8	5	40
Proximity to freeways	8	5	40
Centrality to Market Area	7	5	35
Agglomeration Potential and Value Chain Expansion	7	4	28
Functional and Complimentary Uses	7	4	28
Absence of Competitive Products - Market Gap	7	4	28
Proximity to Labour Force - unskilled, semi-skilled and skilled	9	4	36
Available Infrastructure	8	4	32
Availability of Land	8	3	24
Future Expansion Potential	8	4	32
Perceived Level of Security	7	4	28
Located in Direct Line of Growth	7	4	28
National Policy Alignment	7	4	28
Total			504
Score			76,4%

Source: Demacon, 2013

* **Note:** 80%+ indicates an exceptional site rating; a site rating of 70 – 80% is high and indicates that most important fundamentals for a successful development are in place; a rating of 60 – 70% indicates some critical factors may be lacking but could possibly be addressed; projects with a sub 60% rating are not recommended for consideration.

3.6 SYNTHESIS

The West Rand District Municipality consist of four local Municipalities: Mogale City LM, Merafong City LM, Randfontein LM and the Westonaria LM. The West Rand has a strong historic mining character, with numerous mining houses and shafts still operational within the district. The industrial nodes within the West Rand developed mainly around / in close proximity to the mining operations within the District. The mining and industrial sectors are the main employers within the district.

The preceding paragraphs analysed the industrial nodes located within the West Rand District Municipality according to a set of criteria. The following table is a summary of the different industrial node's site assessment values.

Table 3.15: Summary of Site Evaluation Results:

Proposed Land Use	Percentage
Mogale City	
Boltonia	69.2%
Chamdor	73.5%
Delperton	73.8%
Factoria	70.2%
Muldersdrift	83.0%
Nooitgedach	80.8%
Merafong City	
Carletonville Ext 6	73.3%
Oberholzer	73.3%
Fochville	73.8%
Losberg	75.2%
Randfontein	
Aureus	76.8%
Westonaria	
Westonaria	76.4%

** **Note:** 80%+ indicates an exceptional site rating; a site rating of 70 – 80% is high and indicates that most important fundamentals for a successful development are in place; a rating of 60 – 70% indicates some critical factors may be lacking but could possibly be addressed; projects with a sub 60% rating are not recommended for consideration.*

Most of the industrial nodes within the West Rand have all the important fundamentals in place of successful development / expansion of the industrial nodes.

The following Chapter indicates the policy framework overview in a macro and meso context as well as in a local context.

CHAPTER 4: POLICY FRAMEWORK ANALYSIS

4.1 INTRODUCTION

This chapter analyse numerous policy documents on a Macro, Meso and Micro scale to determine the different development sectors identified within each policy document for future development. In addition, the sectors identified for future development are cross-reverenced from a macro to micro level to establish / ensure proper alignment within the future industrial development strategy in terms of future industrial expansion and development sector proposals.

MACRO LEVEL

4.2 NATIONAL POLICY FRAMEWORK

The policy framework Macro Level will briefly look at the following to national policy guidelines:

- ✓ National Spatial Development Perspective 2006
- ✓ National Development Plan: Vision 2030
- ✓ The National growth Path 2010
- ✓ Regional Industrial Development Strategy
- ✓ Industrial policy Action Plans (IPAP1 & IPAP2).

4.2.1 NATIONAL SPATIAL DEVELOPMENT PERSPECTIVE (2006),

The National Spatial Development Perspective (NSDP) 2006 support and advances the realization of this vision by providing a systematic overview and framework for understanding and interpreting the national space economy. It furthermore provides a far finer-grained analysis to enhance its role as providing a basis for strategic dialogue with government about where to focus infrastructure investment and development spending and optimize inter-governmental impact within specific localities. This can of course only do if it is used as such buy all government in all forms of planning, budgeting and implementation.

The NSDP should be understood both as a policy directive in terms of its methodology and an indicative tool in terms of its content. That is:

- ✓ The principles and methodology of the NSDP should inform the development plans, policies and programmes of all spheres and agencies of government as a matter of policy
- ✓ The details of economic potential and demographic patterns in localities to be the subject on ongoing dialogue amongst state and non-state actors; and
- ✓ Districts and metropolitan areas should be positioned as the geographical units for building an understanding of the nature of distribution of potential and demographic patterns across the country.

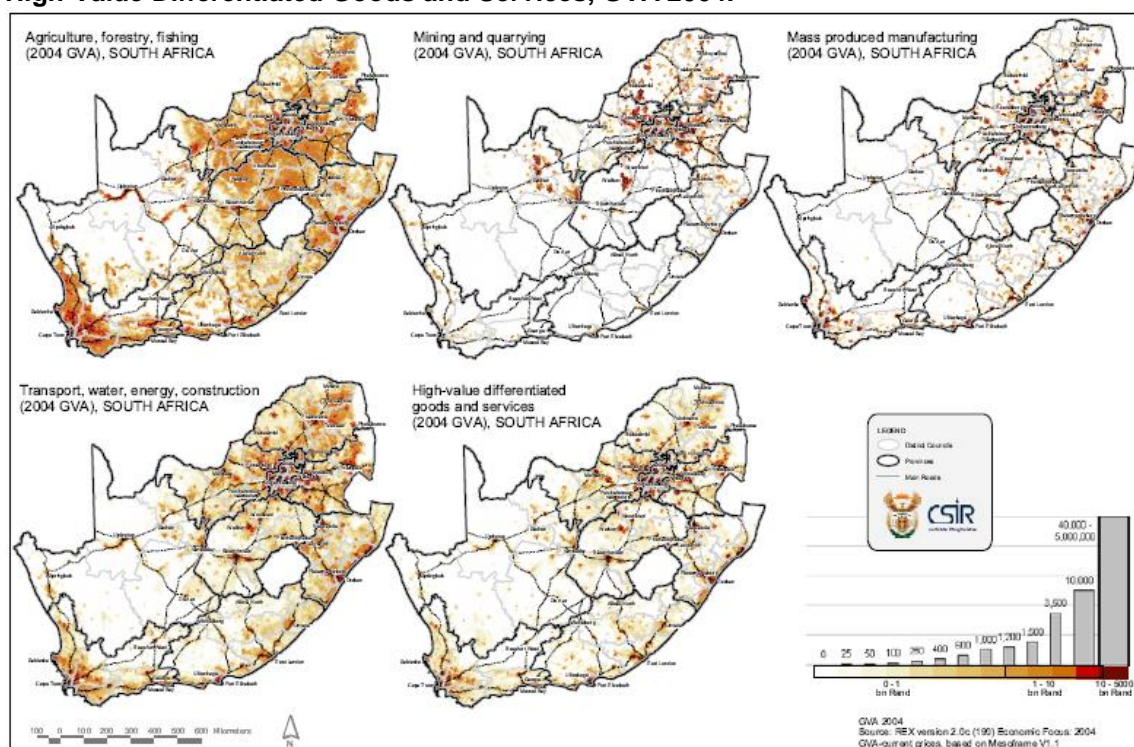
In order to contribute to the broader growth and development policy objectives of government, the NSDP puts forward a set of five normative principles:

- ✓ **Principle 1:** Rapid economic growth that is sustained and inclusive is a prerequisite for the achievement of other policy objectives, among which poverty alleviation is key
- ✓ **Principle 2:** Government has a constitutional obligation to provide basic services to all citizens (e.g. water, energy, health and educational facilities), wherever they reside

- ✓ **Principle 3:** Beyond the constitutional obligation identified in Principle 2 above, government spending on fixed investment should be focused on localities of economic growth and/or economic potential in order to gear up private-sector investment, to stimulate economic activities and to create long term employment opportunities
- ✓ **Principle 4:** Efforts to address past and current social inequalities should focus on people, not places. In localities where there are both high levels of poverty and demonstrated economic potential, this could include fixed capital investment beyond basic services to exploit the potential of those localities. In localities with low demonstrated economic potential, government should, beyond the provision of basic services, concentrate primarily on human capital development by providing education and training, social transfers such as grants and poverty-relief programmes. It should also reduce migration costs by providing labour-market intelligence to give people better information, opportunities and capabilities, to enable them to gravitate – if they choose to – to localities that are more likely to provide sustainable employment and economic opportunities
- ✓ **Principles 5:** In order to overcome the spatial distortions of apartheid, future settlement and economic development opportunities should be channeled into activity corridors and nodes that are adjacent to or that link the main growth centres. Infrastructure investment should primarily support localities that will become major growth nodes in South Africa and the Southern African Development Community (SADC) region to create regional getaways to the global economy.

According to the NSDP, the highest concentration of population is located in the six metropolitan areas. These are also the areas that have some of the densest settlements in the country, including magisterial districts such as Umlazi, Soweto, Mitchell's Plain, Soshanguve, Goodwood, Chatsworth, Alberton, Wynberg and Inanda. These all have densities of more than 2 000 people per km². In addition to this, these magisterial districts have also experienced the highest rise in density over the last decade, with a rise of more than 1 000 persons per km² between 1996 and 2004 taking place in Umlazi, Soweto, Mitchell's Plain and Soshanguve.

As illustrated in Map 4.1, these areas represent the economic cores in which the bulk of the South African economic growth is generated and the largest numbers of the population are concentrated. It is clear that Gauteng (40%) is the strongest economic core in South Africa, followed by Cape Town (13%) and thirdly by Pietermaritzburg (12%).

Map 4.3: GVA Distribution per SNDP Sector: Labour –Intensive Mass-Produced Goods and High-Value Differentiated Goods and Services, GVA 2004.

In additions to the spatial, economic, demographic and environmental analysis national, the NSDP provides some guides for future development in the form of categories of economic development identified with future development / expansion potential. The following Table list the categories.

Table 4.1: Categories of Economic Development Potential

Category	Description
Innovation and experimentation	Research and development and the application of novel technologies to production processes.
Production of high value, differentiated goods (not strongly dependant on labour)	All forms of production that focus on local and/or global niche markets such as manufacturing and some specialised agricultural or natural resource-based products.
Production of labour-intensive, mass-produce goods (more dependent on labour costs and / or on natural-resource exploitation)	These are industries, primarily made up of iron and steel producers and large-scale commercial agricultural and mining activities that are highly dependent on proximity or good, cheap transport linkages to the huge volumes of natural resources that they use in their production processes. They also depend on the availability of large pools of unskilled and semi-skilled labour.
Public services and administration	Activities in this group tend to take place in larger towns and cities with significant public-sector employment and consumption supporting private-sector activities, such as retail and private-sector services.
Retail and private-sector services	These consist of retail, catering and personal services, both formal and informal. These are major components of any economy and are large employers of skilled and semi-skilled workers in most advanced economies. Such activities flourish in diverse settlements with large

	populations.
Tourism	These diverse sets of activities, while generally less spatially focused than, for instance, the manufacturing and services sector, are nonetheless all dependent on tourist-attractions (e.g. eco-scenery, culture, heritage), good transport routes, safety, and, in certain cases, high-quality medical services, restaurants, retail outlets and hotels.

Identified Development Sectors

The National Spatial Development Perspective identified the following main sectors for future development / expansion:

- ✓ Innovation and experimentation
- ✓ Production of high value, differentiated goods (not strongly dependent on labour)
- ✓ Production of labour-intensive, mass-produce goods (more dependent on labour costs and / or on natural-resource exploitation)
- ✓ Public services and administration
- ✓ Retail and private-sector services
- ✓ Tourism

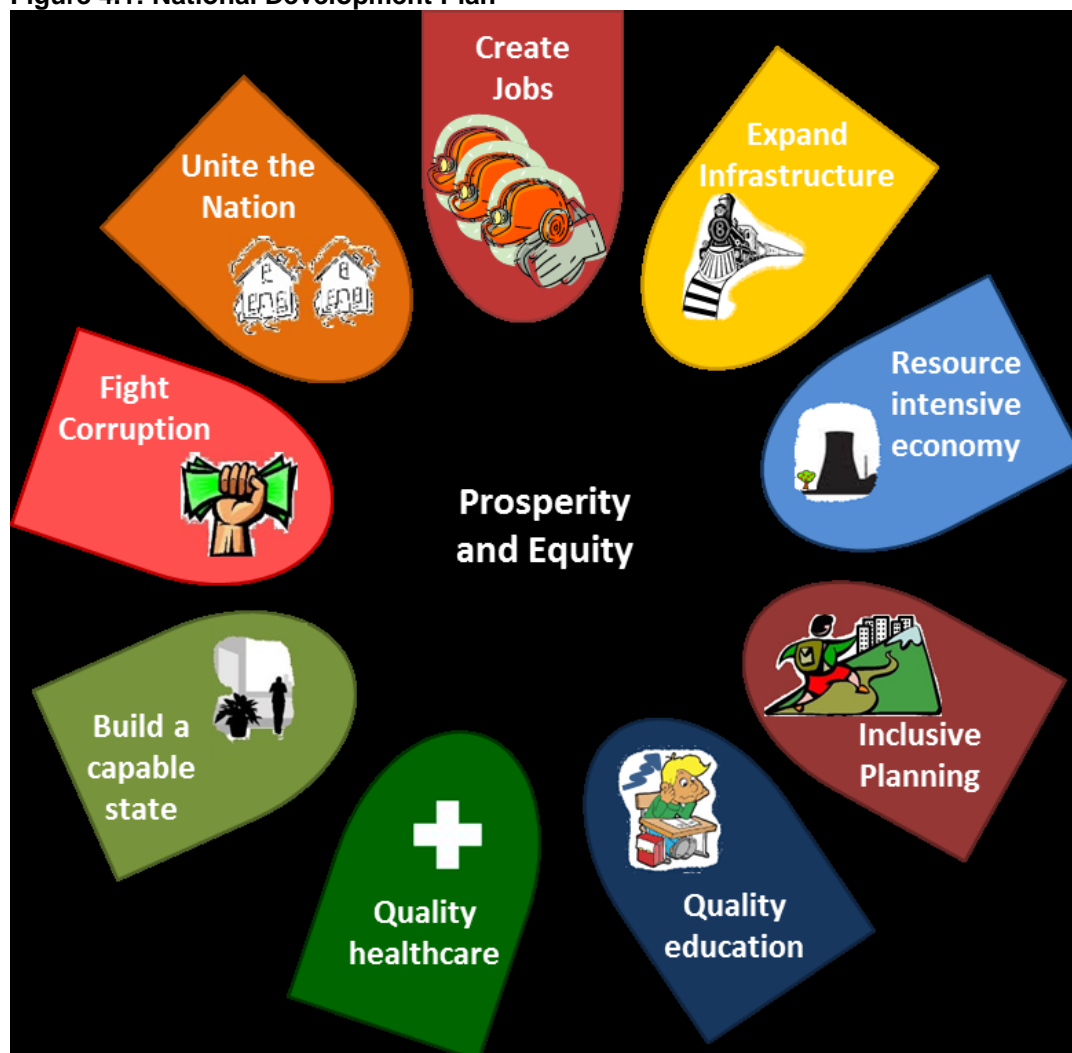
4.2.2 NATIONAL DEVELOPMENT PLAN: VISION 2030

The National Planning Commission has recently created the draft National Development Plan 2030. The Plan focusses on putting in place the things that people need to grasp opportunities such as education and public transport and to broaden the opportunities through economic growth and the availability of jobs. Everything in the plan is aimed and reducing poverty and inequality by 2030. The plan is illustrated in Figure 4.1.

The plan is about bringing about *transformation* - to achieve a virtuous cycle of confidence and trust, a growing economy and expanding opportunities. The vision of the NDP is as follows:

“The National Development Plan is a plan for the country to eliminate poverty and reduce inequality by 2030 through uniting South Africans, unleashing the energies of its citizens, growing an inclusive economy, building capabilities, enhancing the capability of the state and leaders working together to solve complex problems”.

Figure 4.1: National Development Plan



ELEMENTS OF A DECENT STANDARD OF LIVING

Income, through employment or social security, is critical to defining living standards, but human beings need more than income. They need adequate nutrition, they need transport to get to work, and they desire safe communities and clean neighbourhoods. These elements require action either from individuals, government, communities or the private sector.

The National Development Plan makes a firm commitment to achieving a minimum standard of living which can be progressively realised through a multi-pronged strategy. In the plan, we do not define that minimum standard of living but we do provide a framework for the adoption of a minimum standard of living by society. This approach is consistent with the Commission's view that the achievement of such a floor would require support and participation from all social partners and hence its definition is left for ongoing work of the Commission.



To make meaningful progress in eliminating poverty and reducing inequality, South Africa needs to write a new story. The National Planning Commission envisions a South Africa where opportunity is determined not by birth, but by ability, education and hard work. Above all, we need to improve the quality of education and ensure that more people are working. We need to make the most of all our people, their goodwill, skills and resources. This will spark a cycle of development that expands opportunities, builds capabilities, develops communities and raises living standards. We cannot continue with business as usual. We need to change the way we do things; the sooner we do this, the better.

HIGH-LEVEL OBJECTIVES TO BE ACHIEVED BY 2030

- ✓ Reduce the number of people who live in households with a monthly income below R419 per person (in 2009 prices) from 39 percent to zero.¹
- ✓ Reduce inequality, as measured by the Gini coefficient, from 0.69 to 0.62.

ENABLING MILESTONES

To meet our objectives, we need to achieve the following:

- ✓ Increase employment from 13 million in 2010 to 24 million in 2030.
- ✓ Raise per capita income from R50 000 in 2010 to R120 000 by 2030.
- ✓ Increase the share of national income of the bottom 40 percent from 6 percent to 10 percent.
- ✓ Establish a competitive base of infrastructure, human resources and regulatory frameworks.
- ✓ Ensure that skilled, technical, professional and managerial posts better reflect the country's racial, gender and disability makeup.
- ✓ Broaden ownership of assets to historically disadvantaged groups.

- ✓ Increase the quality of education so that all children have at least two years of preschool education and all children in Grade 3 can read and write.
- ✓ Provide affordable access to quality health care while promoting health and wellbeing.
- ✓ Establish effective, safe and affordable public transport.
- ✓ Produce sufficient energy to support industry at competitive prices, ensuring access for poor households, while reducing carbon emissions per unit of power by about one third.
- ✓ Ensure that all South Africans have access to clean running water in their homes.
- ✓ Make high-speed broadband internet universally available at competitive prices.
- ✓ Realise a food trade surplus, with one third produced by small-scale farmers or households.
- ✓ Provide universal access to affordable, high-quality health care.
- ✓ Entrench a social security system covering all working people, with social protection for the poor and other groups in need, such as children and people with disabilities.
- ✓ Realise a developmental, capable and ethical state that treats citizens with dignity.
- ✓ Ensure that all people live safely, with an independent and fair criminal justice system.
- ✓ Broaden social cohesion and unity by making use of the talents and resources of all South Africans, while taking firm steps to redress the inequities of the past.
- ✓ Play a leading role in continental development, economic integration and human rights.

CRITICAL ACTIONS

Critical actions include:

- ✓ A social compact to reduce poverty and inequality, and raise employment and investment, founded on partnerships with all sectors of society.
- ✓ A multipronged strategy to address poverty and its impacts through broadening access to employment, strengthening the social wage, providing public transport and raising rural incomes.
- ✓ Steps by the state to professionalise the public service, strengthen accountability, improve coordination and prosecute corruption.
- ✓ Boost private investment in labour-intensive areas, competitiveness and exports, with adjustments to lower the risk of hiring younger workers.
- ✓ An education account-ability chain, with lines of responsibility from state to classroom.
- ✓ Phase in national health insurance, with a focus on upgrading public health facilities, producing more health professionals and reducing the relative cost of private health care.
- ✓ Public infrastructure investment at 10 percent of gross domestic product, financed through tariffs, public-private partnerships, taxes and loans and focused on transport, energy, water and freight.
- ✓ Interventions to ensure environmental sustainability and resilience to future shocks.
- ✓ New spatial norms and standards - densifying cities, improving transport, locating jobs where people live, upgrading informal settlements and fixing housing market gaps.
- ✓ Reduce crime by strengthening criminal justice and improving community environments.

BUILDING A FUTURE FOR SOUTH AFRICA'S YOUTH

South Africa has an urbanising, youthful population. This presents an opportunity to boost economic growth, increase employment and reduce poverty. The Commission, recognising that young people bear the brunt of unemployment, adopted a "youth lens" in preparing its proposals, which include:

- ✓ A nutrition intervention for pregnant women and young children.
- ✓ Universal access to two years of early childhood development.
- ✓ Improve the school system, including increasing the number of students achieving above 50 percent in literacy and mathematics, increasing learner retention rates to 90 percent and bolstering teacher training.

- ✓ Strengthen youth service programmes and introduce new, community-based programmes to offer young people life-skills training, entrepreneurship training and opportunities to participate in community development programmes.
- ✓ Strengthen and expand the number of FET colleges to increase the participation rate to 25 percent.
- ✓ Increase the graduation rate of FET colleges to 75 percent.
- ✓ Provide full funding assistance covering tuition, books, accommodation and living allowance to students from poor families.
- ✓ Develop community safety centres to prevent crime and include youth in these initiatives.
- ✓ A tax incentive to employers to reduce the initial cost of hiring young labour-market entrants.
- ✓ A subsidy to the placement sector to identify, prepare and place matric graduates into work. The subsidy will be paid upon successful placement.
- ✓ Expand learnerships and make training vouchers directly available to job seekers.
- ✓ A formalised graduate recruitment scheme for the public service to attract highly skilled people.
- ✓ Expand the role of state-owned enterprises in training artisans and technical professionals.

SUMMARY OF OBJECTIVES AND ACTIONS

➤ ECONOMY AND EMPLOYMENT

Objectives

- ✓ The unemployment rate should fall from 24.9 percent in June 2012 to 14 percent by 2020
- ✓ and to 6 percent by 2030. This requires an additional 11 million jobs. Total employment
- ✓ should rise from 13 million to 24 million.
- ✓ The proportion of adults working should increase from 41 percent to 61 percent.
- ✓ The proportion of adults in rural areas working should rise from 29 percent to 40 percent.
- ✓ The labour force participation rate should rise from 54 percent to 65 percent.
- ✓ Gross Domestic Product (GDP) should increase by 2.7 times in real terms, requiring average annual GDP growth of 5.4 percent over the period. GDP per capita should increase from about R50 000 per person in 2010 to R110 000 per person in 2030 in constant prices.
- ✓ The proportion of national income earned by the bottom 40 percent should rise from about 6 percent today to 10 percent in 2030.
- ✓ Broaden ownership of assets to historically disadvantaged groups.
 - Exports (as measured in volume terms) should grow by 6 percent a year to 2030 with non-traditional exports growing by 10 percent a year.
 - Increase national savings from 16 percent of GDP to 25 percent.
 - The level of gross fixed capital formation should rise from 17 percent to 30 percent, with public sector fixed investment rising to 10 percent of GDP by 2030.
 - Public employment programmes should reach 1 million by 2015 and 2 million people by 2030.

Actions

- ✓ Reduce the cost of living for poor households and costs of doing business through microeconomic reforms.
- ✓ Develop proposals for an acceptable minimum standard of living and proposals on how to achieve this over time.
- ✓ Remove the most pressing constraints on growth, investment and job creation, including energy generation and distribution, urban planning etc.

- ✓ Position South Africa to attract offshore business services, and build on the advantage provided by its telecommunications, banking and retail firms operating in other countries.
- ✓ Increase the benefit to the country of our mineral resources by:
- ✓ Giving clear certainty over property rights (the right to mine)
- ✓ Increasing rail, water and energy infrastructure
- ✓ Structure a taxation regime that is fair, equitable and predictable and that recognises the non-renewable nature of mineral resources.
- ✓ Broaden the expanded public works programme to cover 2 million fulltime equivalent jobs by 2020.
- ✓ Offer a tax incentive to employers to reduce the initial cost of hiring young labour market entrants. Facilitate agreement between employers and unions on entry-level wages.
- ✓ Give a subsidy to the placement sector to identify, prepare and place matric graduates into jobs.
- ✓ Business and labour to develop their own proposals to reduce youth unemployment.
- ✓ Adopt a more open immigration approach to expand supply of high-level skills.
- ✓ Adopt an approach to handling probationary periods that reflects the intention of probation.
- ✓ Simplifies dismissal procedures for non-performance or misconduct, especially for smaller firms.
- ✓ Strengthen dispute resolutions mechanisms in the labour market with a view to reducing tension and violence.

➤ **ECONOMIC INFRASTRUCTURE**

Objectives

- ✓ The proportion of people with access to the electricity grid should rise to at least 90 percent by 2030, with non-grid options available for the rest.
- ✓ The country would need an additional 29 000MW of electricity by 2030. About 10 900MW of existing capacity is to be retired, implying new build of more than 40 000MW.
- ✓ At least 20 000MW of this capacity should come from renewable sources.
- ✓ Ensure that all people have access to clean, potable water and that there is enough water for agriculture and industry, recognising the trade-offs in the use of water.
- ✓ Reduce water demand in urban areas to 15 percent below the business-as-usual scenario by 2030.
- ✓ The proportion of people who use public transport for regular commutes will expand significantly. By 2030, public transport will be userfriendly, less environmentally damaging, cheaper and integrated or seamless
- ✓ Durban port capacity should increase from 3 million containers a year to 20 million by 2040.
- ✓ Competitively priced and widely available broadband.

Actions

Coal:

- ✓ Ensure domestic security of coal supply for existing power stations through industry compact, more comprehensive coal field planning and opening up the Waterberg for coal mining.
- ✓ Invest in a new heavy-haul rail corridor to the Waterberg coal field, upgrade the central basin coal network and expand export capacity in the line to Richards Bay.

Gas:

- ✓ Enable exploratory drilling to identify economically recoverable coal seam and shale gas reserves, while environmental investigations will continue to ascertain whether sustainable exploitation of these resources is possible. If gas reserves are proven and

environmental concerns alleviated, then development of these resources and gas-to-power projects should be fast-tracked.

- ✓ Incorporate a greater share of gas in the energy mix, both through importing liquefied natural gas and if reserves prove commercial, using shale gas. Develop infrastructure for the import of liquefied natural gas, mainly for power production, over the short to medium term.

Electricity:

- ✓ Move to less carbon-intensive electricity production through procuring at least 20 000MW of renewable energy, increased hydro-imports from the region and increased demand-side measures, including solar water heating.
- ✓ Move Eskom's system operator, planning, power procurement, power purchasing and power contracting functions to the independent system and market operator and accelerated procurement of independent power producers.
- ✓ Ring-fence the electricity distribution businesses of the 12 largest municipalities (which account for 80 percent of supply), resolve maintenance and refurbishment backlogs and develop a financing plan, alongside investment in human capital.
- ✓ Revise national electrification plan and ensure 90 percent grid access by 2030 (with balance met through off-grid technologies).

Liquid fuels:

- ✓ Upgrade fuel refineries to ensure they meet new fuel quality standards and insist on larger strategic fuel stocks to ensure security of supply.
- ✓ Continue to import refined fuels, ensuring that the growing deficit in petroleum products is met, and defer decision on a new refinery to 2017.

Water resources:

- ✓ A comprehensive management strategy including an investment programme for water resource development, bulk water supply and wastewater management for major centres by 2012, with reviews every five years.
- ✓ Complete phase 2 of the Lesotho Highlands water project by 2020.
- ✓ Timely development of several new water schemes to supply urban and industrial centres, new irrigation systems in the Umzimvubu river basin and Makhathini Flats, and a national water conservation programme to improve water use and efficiency
- ✓ Create regional water and wastewater utilities, and expand mandates of the existing water boards (between 2012 and 2017).

Transport:

- ✓ Consolidate and selectively expand transport and logistics infrastructure, with key focus areas being:
 - Upgrading the Durban-Gauteng freight corridor, including a new port at the old Durban airport site.
 - Expanding capacity of the coal, iron ore and manganese lines, with consideration given to concessioning parts of this network.
 - Building the N2 road through the Eastern Cape.
 - Public transport infrastructure and systems, including the renewal of the commuter rail fleet, supported by enhanced links with road-based services.

➤ **INFORMATION AND COMMUNICATIONS INFRASTRUCTURE**

- ✓ Establishing a national, regional and municipal fibre-optic network to provide the backbone for broadband access; driven by private investment, complemented by public funds required to meet social objectives.
- ✓ Change the regulatory framework to ensure that Internet broadband capacity improves, prices fall significantly and access improves.

➤ ENVIRONMENTAL SUSTAINABILITY AND RESILIENCE

Objectives

- ✓ A set of indicators for natural resources, accompanied by publication of annual reports on the health of identified resources to inform policy.
- ✓ A target for the amount of land and oceans under protection (presently about 7.9 million hectares of land, 848kms of coastline and 4 172 square kilometres of ocean are protected).
- ✓ Achieve the peak, plateau and decline trajectory for greenhouse gas emissions, with the peak being reached around 2025.
- ✓ By 2030, an economy-wide carbon price should be entrenched.
- ✓ Zero emission building standards by 2030.
- ✓ Absolute reductions in the total volume of waste disposed to landfill each year.
- ✓ At least 20 000MW of renewable energy should be contracted by 2030.
- ✓ Improved disaster preparedness for extreme climate events.
- ✓ Increased investment in new agricultural technologies, research and the development of adaptation strategies for the protection of rural livelihoods and expansion of commercial agriculture.

Actions

- ✓ An independent Climate Change Centre, in partnership with academic and other appropriate institutions, is established by government to support the actions of government, business and civil society.
- ✓ Put in place a regulatory framework for land use, to ensure the conservation and restoration of protected areas
- ✓ Carbon price, building standards, vehicle emission standards and municipal regulations to achieve scale in stimulating renewable energy, waste recycling and in retrofitting buildings.
- ✓ Carbon-pricing mechanisms, supported by a wider suite of mitigation policy instruments to drive energy efficiency.
- ✓ All new buildings to meet the energy-efficiency criteria set out in South African National Standard 204.
- ✓ Channel public investment into research, new agricultural technologies for commercial farming, as well as for the development of adaptation strategies and support services for small-scale and rural farmers.

➤ INCLUSIVE RURAL ECONOMY

Objectives

- ✓ An additional 643 000 direct jobs and 326 000 indirect jobs in the agriculture, agro-processing and related sectors by 2030.
- ✓ Maintain a positive trade balance for primary and processed agricultural products.

Actions

- ✓ Rural economies will be activated through improved infrastructure and service delivery, a review of land tenure, service to small and micro farmers, a review of mining industry commitments to social investment, and tourism investments
- ✓ Substantially increase investment in irrigation infrastructure in Makhathini Flats and Umzimvubu River Basin.

- ✓ Create tenure security for communal farmers, especially women, investigate different forms of financing and vesting of private property rights to land reform beneficiaries that does not hamper beneficiaries with a high debt burden.

➤ **SOUTH AFRICA IN THE REGION AND THE WORLD**

Objectives

- ✓ Intra-regional trade in Southern Africa should increase from 7 percent of trade to 25 percent of trade by 2030.
- ✓ South Africa's trade with regional neighbours should increase from 15 percent of our trade to 30 percent.

Actions

- ✓ Focus trade penetration and diplomatic presence in fast-growing markets (Asia, Brazil and Africa).
- ✓ Implement a focused regional integration strategy with emphasis on:
 - Road, rail and port infrastructure in the region
 - Reducing red tape, corruption and delays at border posts
 - Using financial institutions to partner with businesses wanting to expand on the continent
 - Strengthening regional cooperation in food and energy markets and water management.
 - Identifying and promoting practical opportunities for cooperation based on complementary national endowments.

➤ **TRANSFORMING HUMAN SETTLEMENTS**

Objectives

- ✓ Strong and efficient spatial planning system, well integrated across the spheres of government.
- ✓ Upgrade all informal settlements on suitable, well located land by 2030.
- ✓ More people living closer to their places of work.
- ✓ Better quality public transport.
- ✓ More jobs in or close to dense, urban townships.

Actions

- ✓ Reforms to the current planning system for improved coordination.
- ✓ Develop a strategy for densification of cities and resource allocation to promote better located housing and settlements.
- ✓ Substantial investment to ensure safe, reliable and affordable public transport.
- ✓ Introduce spatial development framework and norms, including improving the balance between location of jobs and people.
- ✓ Conduct a comprehensive review of the grant and subsidy regime for housing with a view to ensure diversity in product and finance options that would allow for more household choice and greater spatial mix and flexibility. This should include a focused strategy on the housing gap market, involving banks, subsidies and employer housing schemes.
- ✓ National spatial restructuring fund, integrating currently defused funding.
- ✓ Establish a national observatory for spatial data and analysis.
- ✓ Provide incentives for citizen activity for local planning and development of spatial compacts.

- ✓ Introduce mechanisms that would make land markets work more effectively for the poor and support rural and urban livelihoods.

➤ **IMPROVING EDUCATION, TRAINING AND INNOVATION**

Objectives

- ✓ Make early childhood development a top priority among the measures to improve the quality of education and long-term prospects of future generations. Dedicated resources should be channelled towards ensuring that all children are well cared for from an early age and receive appropriate emotional, cognitive and physical development stimulation.
- ✓ All children should have at least 2 years of pre-school education.
- ✓ About 90 percent of learners in grades 3, 6 and 9 must achieve 50 percent or more in the annual national assessments in literacy, maths and science.
- ✓ Between 80 – 90 percent of learners should complete 12 years of schooling and or vocational education with at least 80 percent successfully passing the exit exams
- ✓ Eradicate infrastructure backlogs and ensure that all schools meet the minimum standards by 2016.
- ✓ Expand the college system with a focus on improving quality. Better quality will build confidence in the college sector and attract more learners. The recommended participation rate of 25 percent would accommodate about 1.25 million enrolments.
- ✓ Provide 1 million learning opportunities through Community Education and Training Centres.
- ✓ Improve the throughput rate to 80 percent by 2030.
- ✓ Produce 30 000 artisans per year.
- ✓ Increase enrolment at universities by at least 70 percent by 2030 so that enrolments increase to about 1.62 million from 950 000 in 2010.
- ✓ Increase the number of students eligible to study towards maths and science based degrees to 450 000 by 2030.
- ✓ Increase the percentage of PhD qualified staff in the higher education sector from the current 34 percent to over 75 percent by 2030.
- ✓ Produce more than 100 doctoral graduates per million per year by 2030. That implies an increase from 1420 in 2010 to well over 5 000 a year.
- ✓ Expand science, technology and innovation outputs by increasing research and development spending by government and through encouraging industry to do so.

Actions

Early childhood development

- ✓ Design and implement a nutrition programme for pregnant women and young children, followed by a childhood development and care programme for all children under the age of 3
- ✓ Increase state funding and support to ensure universal access to two years of early childhood development exposure before grade 1.
- ✓ Strengthen coordination between departments, as well as the private and non-profit sectors. Focus should be on routine day-to-day coordination between units of departments that do similar work.

Schooling

- ✓ The interests of all stakeholders should be aligned to support the common goal of achieving good educational outcomes that are responsive to community needs and economic development.

- Educational institutions should be provided with the capacity to implement policy. Where capacity is lacking, this should be addressed as an urgent priority.
- Teachers should be recognised for their efforts and professionalism. Teaching should be a highly valued profession.
- ✓ Introduce incentive schemes linked to the annual national assessments to reward schools for consistent improvements.
- ✓ Top performing schools in the public and private sectors must be recognised as national assets. They should be supported and not saddled with unnecessary burdens.
- ✓ Strengthen and expand Funza Lushaka and ensure that graduates of the programme are immediately absorbed into schools. It should not be left to graduates to find placements in schools.
- ✓ Investigate introducing professional certification. Newly qualified teachers would need to demonstrate certain competencies before they are employed in schools, and after that they would be offered preliminary or probationary certification, to be finalised based on demonstrated competence. The professional certification of all teachers would need to be renewed periodically.
- ✓ Change the appointment process to ensure that competent individuals are attracted to become school principals.
 - Candidates should undergo a competency assessment to determine their suitability and identify the areas in which they would need development and support.
 - Eliminate union influence in promoting or appointing principals. The Department of Basic Education and provincial departments of education must ensure that human resources management capacity is improved and recruitment undertaken correctly.
 - Implement an entry level qualification for principals.

Further education and training

- ✓ Support the development of specialised programmes in universities focusing on training college lecturers and provide funding for universities to conduct research on the vocational education sector.
- ✓ Build the capacity of FET institutions to become the preferred institutions for vocational education and training. Learners should be able to choose the vocational pathway before completing Grade 12. Expand the geographical spread of FET institutions.
- ✓ Build a strong relationship between the college sector and industry. SETAs have a crucial role in building relationships between education institutions and the employers.

Higher education

- ✓ Implement a National Programme to develop the Next Generation of Academics for South African Higher Education.
- ✓ Complete the construction of two new universities in Mpumalanga and the Northern Cape; new medical schools in Limpopo and a number of academic hospitals; expand the infrastructure of existing institutions and allow all universities to use of distance education to reach more learners.
- ✓ Provide an option of a four-year university degree, combined with bridging courses and more support for universities to help students from disadvantaged backgrounds.
- ✓ Provide all students who qualify for the National Student Financial Aid Scheme with access to full funding through loans and bursaries to cover the costs of tuition, books, accommodation and other living expenses.
- ✓ Students who do not qualify should have access to bank loans, backed by state sureties. Both the National Student Financial Aid Scheme and bank loans should be recovered through arrangements with the South African Revenue Service. Service-linked scholarships should be available in areas such as nursing, teaching and social work.

- ✓ Relax immigration requirements for highly skilled science and mathematics teachers, technicians and researchers. All graduates from foreign countries should be granted 7-year work permits.

➤ **HEALTH CARE FOR ALL**

Objectives

- ✓ Increase average male and female life expectancy at birth to 70 years.
- ✓ Progressively improve TB prevention and cure.
- ✓ Reduce maternal, infant and child mortality.
- ✓ Significantly reduce prevalence of non-communicable chronic diseases.
- ✓ Reduce injury, accidents and violence by 50 percent from 2010 levels.
- ✓ Deploy primary healthcare teams provide care to families and communities.
- ✓ Everyone must have access to an equal standard of care, regardless of their income.
- ✓ Fill posts with skilled, committed and competent individuals.

Actions

Address the social determinants that affect health and disease

- ✓ Promote healthy diets and physical activity.

Strengthen the health system

- ✓ Bring in additional capacity and expertise to strengthen health system at the district level; implement a national health information system to ensure that all parts of the system have the required information to effectively achieve their responsibilities; put in place a human resource strategy with national norms and standards for staffing, linked to a package of care; determine minimum qualifications for hospital managers.

Prevent and reduce the disease burden and promote health

- ✓ Prevent and control epidemic burdens through deterring and treating HIV/AIDS, new epidemics and alcohol abuse; improve the allocation of resources and the availability of health personnel in the public sector; and improve the quality of care, operational efficiency, health worker morale and leadership and innovation.

Implement National Health Insurance

- ✓ Implement the scheme in a phased manner, focusing on:
 - Improving quality of care in public facilities
 - Reducing the relative cost of private medical care
 - Increasing the number of medical professionals
 - Introducing a patient record system and supporting information technology systems.

Build human resources in the health sector

- ✓ Accelerate the production of community health specialist in the five main specialist areas (medicine, surgery, including anaesthetics, obstetrics, paediatrics, and psychiatry) and train more nurses.
- ✓ Recruit, train and deploy 700 000 community health workers to implement community-based primary health care.

➤ **SOCIAL PROTECTION**

Objectives

- ✓ Ensure progressively and through multiple avenues that no one lives below a defined minimum social floor.
- ✓ All children should enjoy services and benefits aimed at facilitating access to nutrition, health care, education, social care and safety.
- ✓ Address problems such as hunger, malnutrition and micronutrient deficiencies that affect physical growth and cognitive development, especially among children.
- ✓ Address the skills deficit in the social welfare sector.
- ✓ Provide income support to the unemployed through various active labour market initiatives such as public works programmes, training and skills development, and other labour market related incentives.
- ✓ All working individuals should make adequate provision for retirement through mandated savings. The state should provide measures to make pensions safe and sustainable.
- ✓ Social protection systems must respond to the growth of temporary and part-time contracts, and the increasing importance of self-employment and establish mechanisms to cover the risks associated with such.
- ✓ Create an effective social welfare system that delivers better results for vulnerable groups, with the state playing a larger role compared to now.
- ✓ Civil society should complement government initiatives.

Actions

- ✓ Together with social partners, determine a social floor that can be progressively realised through rising employment, higher earnings and social grants and other aspects of the social wage.
- ✓ Increase the supply of four categories of social service professionals to 55 000, to respond to the demand for appropriate basic social welfare services, i.e. social workers, auxiliary or assistant social workers, community development workers, and child and youth care workers.
- ✓ Identify the main elements of a comprehensive food security and nutrition strategy and launch a campaign.
- ✓ Create incentives that encourage a culture of individual saving for risks and loss of income due to old age, illness, injury or loss of work for workers in both the formal and informal sectors.
- ✓ Explore designs of a mixture of financing and institutional frameworks that enables those in the informal economy to participate in contributory social insurance schemes.
- ✓ Pilot mechanisms and incentives to assist the unemployed to access the labour market.
- ✓ Expand existing public employment initiatives to create opportunities for the unemployed.
- ✓ Develop a consolidated institutional framework that supports coherent policy implementation, integrated social security administration, and effective regulation and oversight of the system.

➤ **BUILDING SAFER COMMUNITIES**

Objectives

Actions

- ✓ In 2030 people living in South Africa feel safe and have no fear of crime. They feel safe at home, at school and at work, and they enjoy an active community life free of fear. Women can walk freely in the street and the children can play safely outside. The police service is a well-resourced professional institution staffed by highly skilled officers who value their works, serve the community, safeguard lives and property without

discrimination, protect the peaceful against violence, and respect the rights of all to equality and justice.

- ✓ Safety audits done in all communities focussing on crime and safety conditions of the most vulnerable in the community.
- ✓ All schools should have learner safety plans.
- ✓ Demilitarise the police force and train all police personnel in professional police ethics and practice.
- ✓ Increase community participation in crime prevention and safety initiatives.
- ✓ The National Rural Safety Strategy Plan must be implemented in high risk areas involving all role-players and stakeholders.
- ✓ Mobilise youth for inner city safety to secure safe places and spaces for young people.
- ✓ A judiciary-led independent court administration must be developed.
- ✓ Clear criteria for appointment of judges must be put in place. (With emphasis on the candidates' progressive credentials and transformative judicial philosophy and expertise).
- ✓ Compulsory community service must be extended to all law graduates to enhance access to justice and provide work opportunities for graduate lawyers.

➤ **BUILDING A CAPABLE AND DEVELOPMENTAL STATE**

Objectives

- ✓ A state that is capable of playing a developmental and transformative role.
- ✓ A public service immersed in the development agenda but insulated from undue political interference.
- ✓ Staff at all levels have the authority, experience, competence and support they need to do their jobs.
- ✓ Relations between national, provincial and local government are improved through a more proactive approach to managing the intergovernmental system.
- ✓ Clear governance structures and stable leadership enable state-owned enterprises (SOEs) to achieve their developmental potential.

Actions

Stabilise the political-administrative interface

- ✓ Create an administrative head of the public service with responsibility for managing the career progression of heads of department. Put in place a hybrid approach to top appointments that allows for the reconciliation of administrative and political priorities.
- ✓ Enhance the role of the Public Service Commission to champion and monitor norms and standards to ensure that only competent and suitably experienced people are appointed to senior positions
- ✓ Amend the Public Service Act to locate responsibility for human-resources management with the head of department.

Make the public service and local government careers of choice

- ✓ Establish a formal graduate recruitment scheme for the public service with provision for mentoring, training and reflection. Formulate long-term skills development strategies for senior managers, technical professionals and local government staff.
- ✓ Use assessment mechanisms such as exams, group exercises and competency tests to build confidence in recruitment systems.
- ✓ Use placements and secondments to enable staff to develop experience of working in other spheres of government.

Improve relations between national, provincial and local government

- ✓ Use differentiation to ensure a better fit between the capacity and responsibilities of provinces and municipalities. Take a more proactive approach to resolving coordination problems and a more long-term approach to building capacity.
- ✓ Develop regional utilities to deliver some local government services on an agency basis, where municipalities or districts lack capacity.
- ✓ Adopt a less hierarchical approach to coordination so that routine issues can be dealt with on a day-to-day basis between mid-level officials. Use the cluster system to focus on strategic cross-cutting issues and the Presidency to bring different parties together when coordination breaks down.

Achieve the developmental potential of state-owned enterprises

- ✓ Develop public interest mandates for SOEs. Improve coordination between policy and shareholder ministries by making them jointly responsible for appointing the board. Ensure appointment processes are credible and that there is greater stability in appointments.

➤ **FIGHTING CORRUPTION**

Objective

- ✓ A corruption-free society, a high adherence to ethics throughout society and a government that is accountable to its people.

Actions

- ✓ The capacity of corruption fighting agencies should be enhanced and public education should be part of the mandate of the anti-corruption agencies.
- ✓ The National Anti-Corruption Forum should be strengthened and resourced.
- ✓ Expand the scope of whistle-blower protection to include disclosure to bodies other than the Public Protector and the Auditor-General. Strengthen measures to ensure the security of whistle-blowers.
- ✓ Centralise oversight of tenders of long duration or above a certain amount.
- ✓ An accountability framework should be developed linking the liability of individual public servants to their responsibilities in proportion to their seniority.
- ✓ Clear rules restricting business interests of public servants should be developed.
- ✓ Corruption in the private sector is reported on and monitored by an agency similar to the Public Protector.
- ✓ Restraint-of-trade agreements for senior civil servants and politicians at all levels of government.
- ✓ All corrupt officials should be made individually liable for all losses incurred as a result of their corrupt actions.

➤ **NATION BUILDING AND SOCIAL COHESION**

Target

- ✓ Our vision is a society where opportunity is not determined by race or birthright; where citizens accept that they have both rights and responsibilities. Most critically, we seek a united, prosperous, non-racial, non-sexist and democratic South Africa.

Actions

- ✓ At school assembly the Preamble of the Constitution to be read in language of choice.
- ✓ Bill of responsibilities to be used at schools and prominently displayed in each work place.
- ✓ Sustained campaigns against racism, sexism, homophobia and xenophobia.
- ✓ The Commission of Gender Equality and the ministry should audit and deal with gaps in legislation and develop joint targets, indicators and timelines for monitoring and evaluating progress towards gender equality.
- ✓ Employment Equity to continue and new models of BEE to be explored to improve the efficacy of the programme. Clear targets should be set for broadening economic participation, enhancing predictability for economic actors.
- ✓ Improving public services and spaces as well as building integrated housing and sport facilities in communities to ensure sharing of common spaces across race and class.
- ✓ Incentivising the production and distribution of all art forms that facilitate healing, nation building and dialogue.
- ✓ All South Africans to learn at least one indigenous language, business to encourage and reward employees who do so.
- ✓ Promote citizen participation in forums such as Integrated Development Plans, Ward Committees, School Governing Boards and Community Policing Forums.
- ✓ Work towards a social compact for growth, employment and equity.

Identified Development Sectors

The National Development Plan: Vision 2030 identified the following main sectors for future development / expansion:

- ✓ Economy and Employment
- ✓ Economic infrastructure
- ✓ Environmental sustainability and resilience
- ✓ Inclusive rural economy
- ✓ South Africa in the region and the world
- ✓ Transforming Human Settlements
- ✓ Improving education, training and innovation
- ✓ Health care for all
- ✓ Social protection
- ✓ Building Safer Communities
- ✓ Building a capable and developmental state
- ✓ Fighting corruption
- ✓ Nation building and social cohesion

4.2.3 NATIONAL GROWTH PATH (2010)

The National Growth Path (NGP) sets out critical markers for employment creation and growth and identifies where viable changes in the structure and character of production can generate a more inclusive and greener economy over the medium to long run. To that end, it combines macro-economic and micro-economic interventions. The NGP proposes strategies:

- ✓ To deepen the domestic and regional market by growing employment, increasing incomes and undertaking other measures to improve equity and income distribution; and
- ✓ To widen the market for South African goods and services through stronger focus on exports to the region and other rapidly growing economies

The NGP identifies areas with the potential for creating employment on a large scale ("job drivers") as follows:

- ✓ Substantial public investment in infrastructure both to create employment directly, in construction, operation and maintenance as well as the production of inputs, and indirectly by improving efficiency across the economy
- ✓ Targeting more labour absorbing activities across the main economic sector – the agricultural and mining value chains, manufacturing and services
- ✓ Taking advantage of new opportunities in the knowledge and green economies
- ✓ Leveraging social capital in the social economy and the public services
- ✓ Fostering rural development and regional integration.

Identified Development Sectors

The National Growth Path identified the following main sectors for future development / expansion:

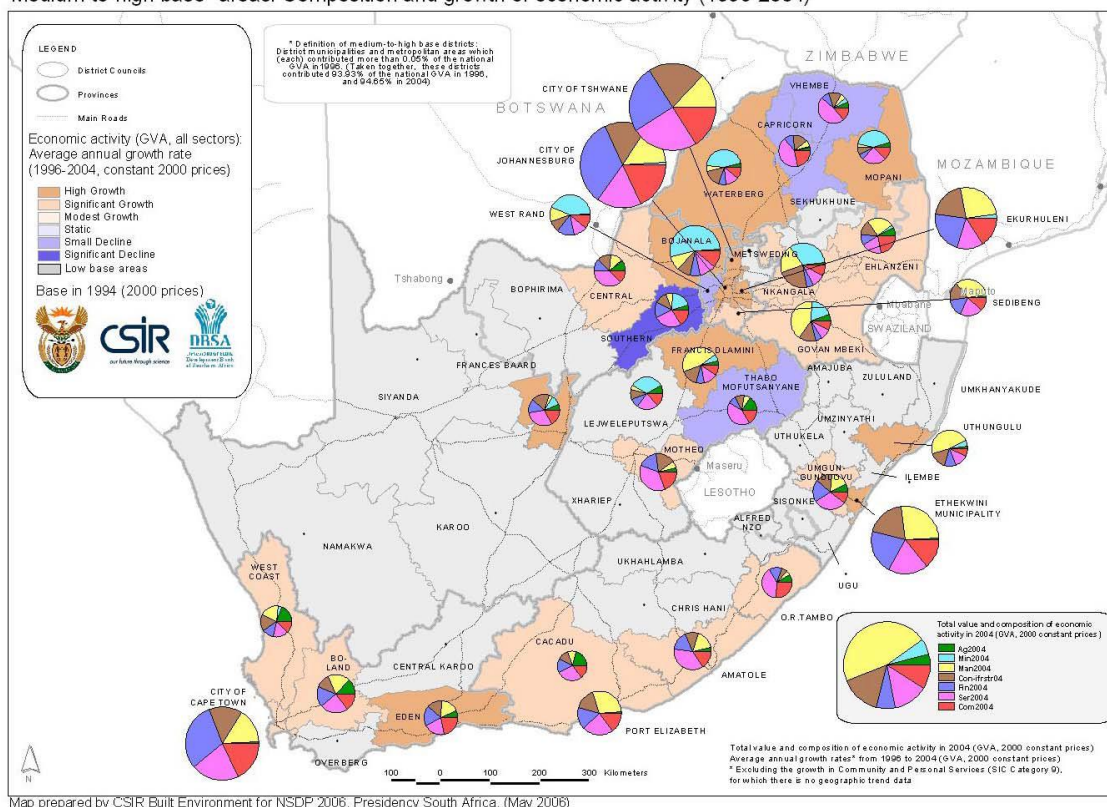
- ✓ Infrastructure development
- ✓ Agriculture
- ✓ Mining
- ✓ Manufacturing
- ✓ Green economies

4.2.4 REGIONAL INDUSTRIAL DEVELOPMENT STRATEGY

The RIDS calls on all regions to build their *industrial economies based on local competitive advantages and opportunities*. It aims to bridge the first-second economy gap in South Africa based on the spatial development principles of the NSDP. Such a strategy focuses fundamentally on addressing the key obstacles to the functioning of the economy, primarily through infrastructural interventions which will better enable all regions to access markets and resources.

Map 4.4: Growth and Economic Activity

Medium-to-high base* areas: Composition and growth of economic activity (1996-2004)



The strategic objectives may be summarized as follows:

- ✓ Attempt, as far as possible, to reduce economic disparities between regions, address the needs of both the first and second economies, and narrow the gap between them
- ✓ Pay particular attention to the needs of those regions which are lagging behind the national norms
- ✓ Enhance current regional strengths and lead sectors of the economy
- ✓ Promote sustainable economic growth and employment in provinces and municipalities
- ✓ Build regional competitive capabilities and firm-level support measures
- ✓ Enhance regional performance in attracting foreign direct investment.

Identified Development Sectors

The Regional Industrial Development Strategy identified the following main sectors for future development / expansion:

- ✓
- ✓

4.2.5 INDUSTRIAL POLICY ACTION PLANS (IPAP1 & IPAP2)

The Industrial Policy Action Plan 2012/13 to 2014/15 or the Revised IPAP2 as it has become known builds on the National Industrial Policy Framework (NIPF), the 2007/08 IPAP (IPAP1) and the 2011/12 IPAP2. Successive iterations of IPAP seeks to scale up key interventions over a rolling three-year period, with a 10-year outlook on desired economic outcomes. The NIPF has the following core objectives:

- ✓ To facilitate diversification beyond the economy's current reliance on traditional commodities and non-tradable services that require the promotion of value-addition,

characterised particularly by the movement into non-traditional tradable goods and services that compete in export markets and against imports,

- ✓ To ensure long-term intensification of South Africa's industrialization process and movement towards a knowledge economy,
- ✓ To promote a labour-absorbing industrialisation path, with the emphasis on tradable labour-absorbing goods and services and economic linkages that create employment
- ✓ To promote industrialisation, characterised by the increased participation of historically disadvantaged people and marginalised regions in the industrial economy, and
- ✓ To contribute towards industrial development in Africa with a strong emphasis on building the continent's productive capacity and secure regional economic integration

Significant achievements in implementing transformative industrial policy actions plans at the sectoral level and the development of stronger transversal platforms set the basis for further strengthening of industrial policy interventions. Special emphasis will be placed on three sectors that are particularly well placed for scaling up through leveraging market growth and associated upgrading of supply capacity and capabilities. These are:

- ✓ **Green industries:** In particular, the manufacture of components for the 17,8GW renewable energy generation programme and the production of solar heaters and components and a range of other goods and services that arise from the requirements of higher energy efficiency in the economy
- ✓ **Agro-processing:** In particular, the expediting of regulatory and support mechanisms to create a large-scale bio-fuels industry, the identification and promotion of export market opportunities to major net food-importing countries; and investment, production development and standards support.
- ✓ **Metal fabrication, capital and transport equipment:** Significant opportunities arise from the leveraging of large public procurements in rail and electricity, the provision of associated investment and upgrading support, and exploitation of opportunities arising from mining capital equipment investment in South Africa and on the rest of the continent.

The key sectors that the 2012/13 – 2014/15 IPAP will focus on are clustered into three groups:

- ✓ **Cluster 1 – Qualitatively new areas of focus:**
 - Realising the potential of the metal fabrication, capital and transport equipment sectors, particularly arising from large public investments
 - Upstream Oil and Gas
 - "Green" and energy-saving industries
 - Agro-processing, linked to food security and food pricing imperatives
 - Boatbuilding
- ✓ **Cluster 2 – Scaled-up and broadened interventions in existing IPAP sectors:**
 - Automotive products and components, and medium and heavy commercial vehicles
 - Plastics, pharmaceuticals and chemicals
 - Clothing, textiles, footwear and leather
 - Biofuels
 - Forestry, paper, pulp and furniture
 - Creative and cultural industries
 - Business process services
- ✓ **Cluster 3 – Sectors with potential for long-term advanced capabilities:**
 - Nuclear

- Advanced materials
- Aerospace, Defence, and
- Electrotechnical and ICT

Identified Development Sectors

The Industrial Policy Action Plan identified the following main sectors for future development / expansion:

- ✓ Cluster 1 – Qualitatively new areas of focus:
 - Realising the potential of the metal fabrication, capital and transport equipment sectors, particularly arising from large public investments
 - Upstream Oil and Gas
 - “Green” and energy-saving industries
 - Agro-processing, linked to food security and food pricing imperatives
 - Boatbuilding
- ✓ Cluster 2 – Scaled-up and broadened interventions in existing IPAP sectors:
 - Automotive products and components, and medium and heavy commercial vehicles
 - Plastics, pharmaceuticals and chemicals
 - Clothing, textiles, footwear and leather
 - Biofuels
 - Forestry, paper, pulp and furniture
 - Creative and cultural industries
 - Business process services
- ✓ Cluster 3 – Sectors with potential for long-term advanced capabilities:
 - Nuclear
 - Advanced materials
 - Aerospace, Defence, and
 - Electrotechnical and ICT

MESO LEVEL

4.3 PROVINCIAL POLICY FRAMEWORK

Gauteng is one of the mayor economic cores of South Africa and includes the West Rand District municipality which consist of four local municipalities, namely Merafong, Mogale City, Randfontein and Westonaria Local Municipalities. The West Rand District Municipality is located on the southern western edge of Gauteng. Following is a brief overview of the following Provincial and District development frameworks influencing future development:

Gauteng Province

- ✓ Gauteng Spatial Development Framework, 2010
- ✓ Gauteng Employment Grow and Development Strategy, 2009 - 2014
- ✓ The Gauteng Global City Region Strategy
- ✓ The Gauteng Trade and Industry Strategy, 2003
- ✓ Gauteng Industrial Policy Framework, 2010 – 2014
- ✓ Growth and Development Strategy for Gauteng

West Rand District:

- ✓ Vision 2016 And The Green IQ
- ✓ West Rand District Municipality Regional Spatial Development Framework
- ✓ West Rand District Municipality - Regional Growth and Development Strategy
- ✓ The West Rand District Municipality Local Economic Development Strategy
- ✓ West Rand District Municipality – Marketing & Investment Strategy
- ✓ The West Rand District Municipality Regional Economic Development Plan
- ✓ West Rand Development Agency Strategic Plan, 2012 - 2017

GAUTENG PROVINCE

4.3.1 GAUTENG SPATIAL DEVELOPMENT FRAMEWORK, 2010

Gauteng Province has adopted the Gauteng Spatial Development Framework (GSDF) as the core policy framework intended to guide decisions relating to the location and nature of physical development in Gauteng. The five critical factors which have been identified to direct future spatial development in Gauteng are:

- ✓ Resource-based economic development: Three strategic thrusts have been formulated to guide future economic development:
 - The re-alignment of the manufacturing sector towards high value added activities
 - The development of the province as the smart centre of the country; and
 - The development of the finance and business services sectors with emphasis on financial services and technology, auxiliary business services, corporate head office location and business tourism
- ✓ Contained urban growth through the implementation of the urban edge as vehicle, which is determined at a provincial level and informed by local government
- ✓ Re-direction of urban growth, which aims to implement the principles of planning legislation and policy where the integration of residential areas with areas of employment opportunities take place.
- ✓ Rural development beyond the urban edge (the greenbelt) to achieve a more balanced growth system
- ✓ Mobility and accessibility, which underpin the principles of development. Hence, road and rail development should be geared at implementation to above proposals.

POLICY AND LEGISLATIVE FRAMEWORK SUMMARY – GAUTENG PERSPECTIVE

- ✓ The GGDS, GSDF and Gauteng Vision 2055 address such issues as poverty, inequality and unemployment and others and provides an interpretation for how to guide development. However, some of the policies are not officially finalised nor have they been participated and shared with municipalities. The establishment of roles and responsibilities and accountability is a critical debate which needs to happen across the various governmental spheres as well as establishing the roles of other equally important role players such as the private sector within sustainable human settlements provision.
- ✓ Policy and legislation frequently alludes to the upgrading of informal settlements and there have been numerous dedicated programmes towards the eradication and / or upgrading of informal settlements. Backyard shacks have seldom received the same attention or focus as Informal Settlements per-se and the role that this informal housing markets plays in terms of delivery accommodation has often been overlooked.
- ✓ The Strategy for a Green Economy provides a fundamental shift to the type of employment that must be created and begins to look at those issues relating to poverty and as well as the implications for housing; however, the spatial interpretation and how it relates to future planning and the built form other than housing, planning mechanisms remains a gap.

PROVINCIAL / CITY REGION ISSUES, OPPORTUNITIES AND TRENDS

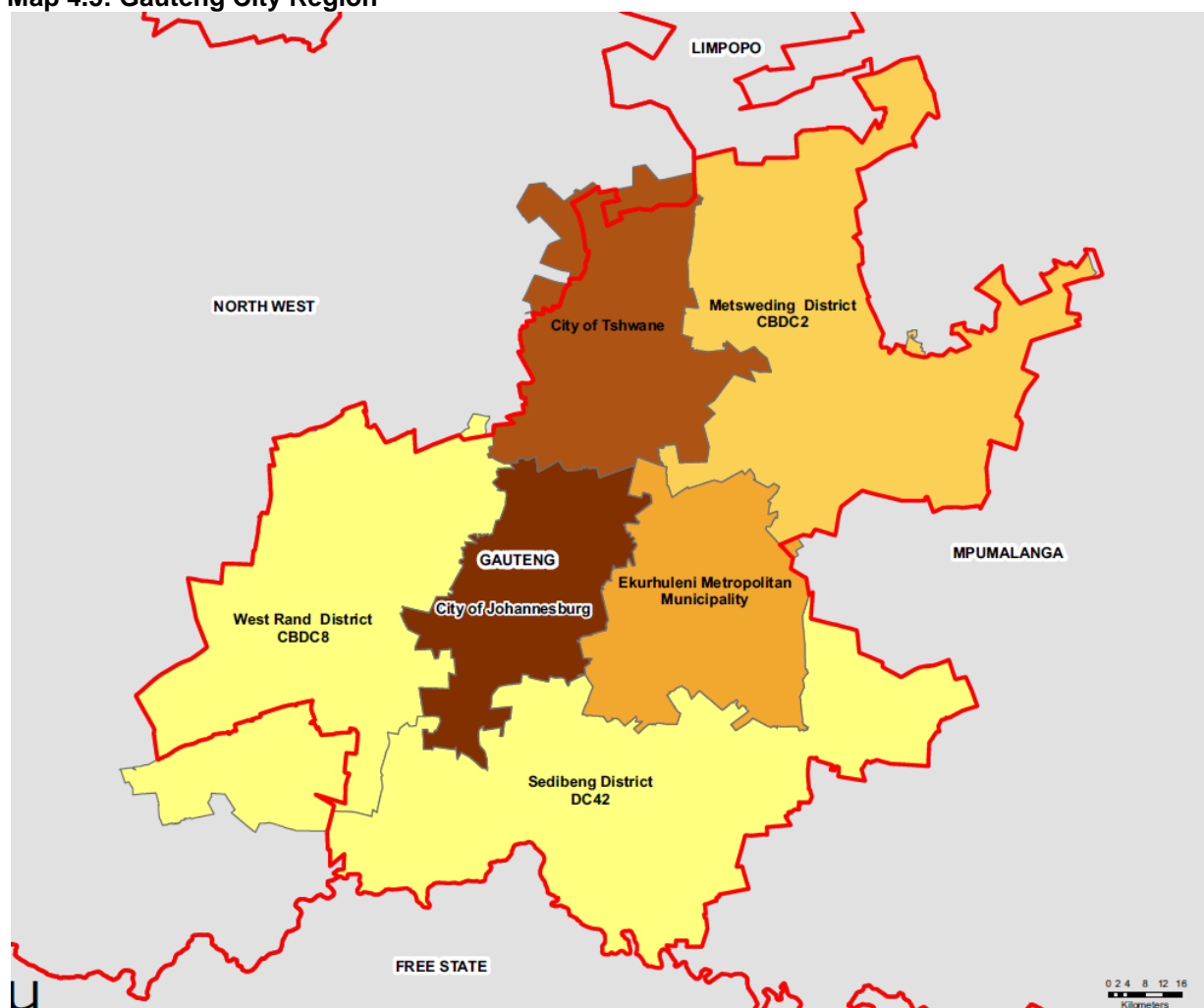
The Gauteng City Region (GCR) is an intergovernmental process of structured engagement that includes the Gauteng Provincial Government (the GPG), the three metropolitan and the three district municipalities and the local municipalities within the boundaries of the Gauteng Province. The concept of the GCR is based on an integrated functional economic region that transcends administrative boundaries, and recognises that Gauteng Province lies at the hub of South Africa's globally connected economy. There are some 10.5 million people living with the Gauteng boundaries of the GCR, and an additional 2 million people living within the surrounding provinces of North West.

The following section illustrates the context of the GCR by listing the issues, opportunities and trends associated with the region. Integrated Planning has been, and remains the focus of the City Region; this therefore provides a good policy framework to draw from in terms of coordination, integration, service delivery and good governance. It also creates a space to identify the gaps that exist within provincial strategies in terms of indicators and benchmarks related to sustainability and urbanisation.

General

- ✓ Rapid population growth and urbanisation translating into an increased demand for services, infrastructure, housing and employment. It is estimated that the population increased by 3.2 million residents between 1995 and 2009, at a rate of 2.6% annually, as compared with the national rate of 0.6%

Map 4.5: Gauteng City Region



Socio Economic

- ✓ The Gauteng city-region is not only the most urbanised but also the wealthiest province in South Africa (33% of SA's GDP).
- ✓ Findings based on a spatial analysis of poverty indicate a high, but decreasing level of economic segregation in the Gauteng city-region.
- ✓ The spatial analysis confirmed that low-income Africans live disproportionately in deprived neighbourhoods compared to low-income residents of other population groups, limiting their ability to take advantage of economic opportunities and the social networks in less disadvantaged areas.
- ✓ The Gauteng city-region is accepted as South Africa's innovation hub and money-making machine. This creates the opportunity to educate, motivate and ultimately, broaden economic development for SMEs and start-ups.
- ✓ Gauteng is a critical role-player in road and rail transportation and logistical support, especially in the sub-continent. The City Deep container depot serves as an important inland port, supporting trade not only in South Africa but in Southern Africa.
- ✓ Opportunity to respond and work with informality, taking advantage of the dual economy (formal and informal sector) in the provision of jobs and income generation.

Housing

- ✓ Between 1994-95 and 2002-03, almost 1 million housing subsidies were approved in the Gauteng city-region, and approximately 340,000 public housing units were built under the auspices of the Reconstruction and Development Programme (RDP).

- ✓ The housing backlog in the city-region is estimated to be increasing by over 50,000 units per year.
- ✓ The Gauteng City Region is characterised from high levels of subsidised housing in peripheral zones and a dysfunctional informal / secondary housing market.
- ✓ Communities have become trapped in sub-optimal employment circuits and reinforce the spatial mismatch between employment and residences.

Service Infrastructure and Transportation

- ✓ Data confirms that the Gauteng city-region still struggles with considerable service backlogs inherited from the apartheid era. Public transport access is very low, which reduces mobility and raises the costs of transport.
- ✓ The Gautrain and Rapid Bus Transport systems are promoting the development of transit-oriented development and the strengthening of public transport nodes.

Spatial Trends

- ✓ According to the GSDF, the land development landscape of Gauteng Province suggests:
 - That the remnants of the structural expression of apartheid spatial planning still dominate the built environment;
 - The inability of all spheres of government to comprehensively and collectively plan for urbanisation (including property market dynamics);
 - The inability of government to measure the extent of urban development and growth universally – with specific reference to the property market;
 - The absence of a centralised database;
 - The dysfunctional location and consequent ineffective linkages of urban functions and economic opportunities in relation to one another;
 - The dominant effect of geomorphologic conditions and mining activities on spatial layout, e.g. dolomite conditions, fragmented settlements;
 - An overregulated development environment driving office and industrial developers to locate in municipalities that process the rather cumbersome development-application systems within reasonable timeframes;
 - The much more vigorous growth of the tertiary sector of the economy in locations far from low-income areas, and the inability of the tertiary sector to offer job opportunities to the unskilled;
 - The higher land prices close to tertiary job opportunities, which make development of low-income housing in these areas impractical;
 - A current approach to urban management and spatial planning portrayed in Spatial Development Frameworks which could, if correctly implemented and monitored, deliver the desired urban configuration.
- ✓ Population growth has been concentrated in a few locations and has resulted in strong spatial polarisation, urban sprawl and tracts of under-utilised land between main urban centres.
- ✓ Residential densities, especially in the three metropolitan municipalities, have undergone an increase in the period 2001-2011. However, this rate has not exceeded the growth in single-dwelling housing during the same period.
- ✓ Residential development, especially of a higher density nature, has focused in the northern, north-western and southern sections of the City of Johannesburg; the eastern, south-eastern and southern parts of the City of Tshwane; the areas around OR Tambo International Airport in Ekurhuleni; and the northern section of the Emfuleni Local Municipality.
- ✓ Office development is by and large concentrated in the wealthier northern suburbs of the City of Johannesburg, followed by the eastern and south-eastern suburbs of the City of Tshwane, with the Ekurhuleni Metropolitan Municipality a distant third (mainly around Bedfordview).

- ✓ The three metros are home to about 90% of all households living in informal settlements in the province (2009-figure).
- ✓ The bulk of non-residential future property growth will be concentrated in the three metros, especially the City of Johannesburg and the City of Tshwane, but the lack of available land is beginning to pose a problem in these two municipalities.
- ✓ Present trends do not suggest a major movement towards a more sustainable, equitable and inclusive model of economic and spatial development in the province.

Identified Development Sectors

The Gauteng Spatial Development Framework identified the following main sectors for future development / expansion according to a Resource-based economic development approach. Three strategic thrusts have been formulated to guide future economic development:

- ✓ The re-alignment of the manufacturing sector towards high value added activities
- ✓ The development of the province as the smart centre of the country; and
- ✓ The development of the finance and business services sectors with emphasis on financial services and technology, auxiliary business services, corporate head office location and business tourism

4.3.2 GAUTENG EMPLOYMENT GROWTH AND DEVELOPMENT STRATEGY

The Gauteng Employment Growth and Development Strategy (GEGDS) for 2009 – 2014 focuses on the first strategic priority of the Gauteng MTSF, namely to “*create decent work and build a growing, inclusive economy*”. While there have been great strides forward since the end of apartheid, there remains significant, structural challenges that need to be addressed on the road ahead. A primary imperative is the need to ensure more inclusive and sustainable economic growth forward. The vision of the GEGDS is therefore: “*An inclusive and sustainable Gauteng City Region that promotes a developmental and equitable society.*”

In trying to reach the destination of being an inclusive and sustainable economy, Gauteng will need to tread a particular path. This “growth path” will be one that necessitates profound structural changes in the provincial economy. Gauteng envisages that the economy will need to shift, as rapidly as possible, to an endogenous economic growth trajectory that is based primarily on “*innovation*”, “*green growth*” and “*inclusivity*”. To elaborate further, Gauteng will not have an economy that provides decent work and economic opportunities for all, unless it can become:

- ✓ An *innovating economy*, which ensures that economic energies are unlocked, that existing resources are used more productively, and that the knowledge-based economy is continually strengthened and intensified. ‘Innovating’ is used in the broad sense of the word. It is necessary to encourage science and technology innovation, socio-economic innovation, environmental innovation and even the innovating spirit of the everyday entrepreneur in both formal and informal sectors of the economy.
- ✓ A *green, environmentally friendly economy*, which capitalizes on the enormous economic value to be gained by investing in green processes and products, and which uses existing resources in a more efficient and sustainable manner, thus reducing the carbon footprint of Gauteng. Gauteng needs an economy based on green technologies, green jobs, green energy and green production processes that reduce the ever higher input costs stemming from unsustainable resource use.
- ✓ An “*inclusive*” *economy*, that dramatically expands access to economic opportunities to all historically marginalized and excluded economic actors, either as workers or entrepreneurs. An inclusive economy depends on a number of factors. An example is community-led local economic development that stimulates and affirms the entrepreneurial energy and spirit in communities, thereby enabling the economy to grow ‘from the bottom up’. However, above all else, an inclusive economy depends on the

accessibility, connectivity and interaction made possible by infrastructure investments that are: *strategic* (including transport and ICT); *socio-economic* (relating to education and health); and *bulk* (energy, water, waste and sanitation, transport and rail, information and communication technology, and so forth). Infrastructure, understood in this way, will make the largest impact in creating opportunities for work, access to income and economic participation.

The GEGDS explains the strategic interventions by which Gauteng will work to make this innovating, green and inclusive economy a reality. The strategic interventions are organised into 5 'strategic pillars'. The five pillars are:

- ✓ Transforming the provincial economy through improved efficiency (economic dimension)
- ✓ Sustainable employment creation (economic dimension)
- ✓ Increasing economic equity and ownership (equality dimension)
- ✓ Investing in people (social dimension), and
- ✓ Sustainable communities and social cohesion (social dimension)

These 5 pillars are designed to ensure convergence between the economic and social strategies of government, underpinned by environmental strategies to ensure sustainable resource usage. These pillars refer to what is expected from other strategies in order for the province to achieve the right kind of economic development.

Identified Development Sectors

The Gauteng Employment Growth and Development Strategy identified the following main sectors for future development / expansion:

- ✓ Innovative economy: Science and technology innovation, socio-economic innovation, environmental innovation
- ✓ Green economy: Green processes and products
- ✓ Inclusive economy: Accessibility, connectivity and interaction made possible by infrastructure investments

4.3.3 GAUTENG GLOBAL CITY REGION STRATEGY

The primary objective of the Global City Region (as highlighted in the Gauteng Growth and Development Strategy) is to build Gauteng into an *integrated and globally competitive region where the economic activities of different parts of the province complement each other in consolidating Gauteng as an economic hub of Africa and an internationally recognised global city region*. The main aim of this is to encourage great internal coherence and cooperation within the Province, for greater external competitiveness.

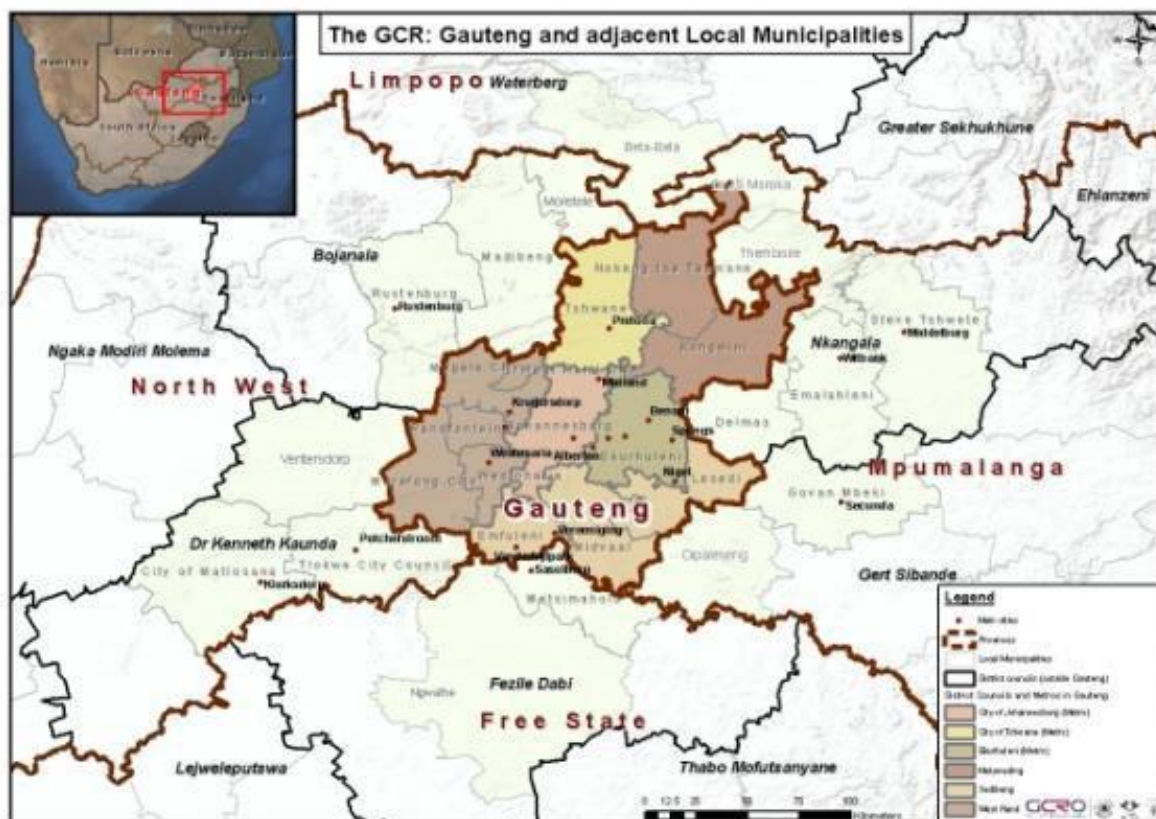
The strategy seeks to align the various planning instruments, structures and sectors in Gauteng in order to realize the "Global City Region". Gauteng's rapid economic growth and expanded social service delivery has accelerated in-migration and placed increasing pressure on the environment.

The growing social and environmental challenges are an increasing burden on Gauteng's stability and sustainability. Unless these challenges are addressed they will pose a significant complication for the future prosperity and development of the Province. Thus issues of environmental planning integrated waste management and pollution abatement must be addressed as essential ingredients of Gauteng's sustainable development.

The Gauteng City-Region is an integrated cluster of cities, towns and urban nodes that together make up the economic heartland of South Africa. Please refer to Map 4.6 for the Gauteng City Region illustration of Gauteng and its adjacent Local Municipalities.

The Gauteng City-Region contributes a significant proportion of South Africa's economic output, with its different areas, focused variously on mining, manufacturing, financial and business services, innovation and trade, working together to constitute a functionally integrated urban economy and single labour market.

Map 4.6: Gauteng City Region



Its relative economic weight in the country and the subcontinent means that the Gauteng City-Region has advantages over other parts of the country. There is a widespread perception that better work and education opportunities are available here. In comparative perspective, Gauteng seems to offer higher levels of access to good housing and essential household infrastructures, greater proximity to urban amenities, and generally better standards of living. As such it is a growing pole of attraction for migrants from South Africa's rural areas and other urban centres, as well as immigrants from the continent. The entrance of newcomers gives it an increasingly cosmopolitan character and vibrant social and economic life. This in turn adds continuously to its dynamism, and attractiveness to opportunity seekers.

Despite its importance, the Gauteng City-Region faces many challenges. These include high levels of poverty, unemployment and social exclusion. South Africa is one of the most unequal societies in the world, and this stark reality is particularly evident in Gauteng cities and towns. There remain spatial concentrations of huge wealth alongside large informal settlements. And although there is gradual integration the concentration of different population groups in specific areas previously designated for them by apartheid remains to this day.

While the Gauteng City-Region has a diverse and fast growing economy, the labour market is not yet dynamic enough to accommodate the aspirations of all prospective workers. Economic activity is still patterned by assumptions and interactions inherited from the

apartheid era that often limit the opportunities for new market entrants, especially young work-seekers. The result is a quality of life for some that matches, and often exceeds, that enjoyed by residents of developed world cities, but high levels of frustration and marginalisation for many others. In turn, dynamism and cosmopolitanism have flip sides in simmering resentment of those who have succeeded, and antipathy to newcomers, especially foreign migrants.

Key to building on its potential and meeting its challenges is how the Gauteng City-Region is governed. At the local level, the urban region within Gauteng is governed by three metropolitan municipalities and, outside of these, a number of two-tier local government structures comprising both district and local municipalities. The local sphere carries some functional areas of responsibility; the provincial sphere, represented by the Gauteng Provincial Government, carries others. Outside the boundaries of Gauteng, other municipalities and other provincial governments are responsible for the emergent cities and smaller towns making up the wider urban region. Various national departments, and large state-owned entities and parastatals also play a role, particularly in the areas of water and power provision, and freight and air transport.

It is appropriate that government responsibilities are distributed in this way: the city-region is so large, complex and dynamic that no one government authority could possibly encompass the whole. But to address the region's challenges and ensure that it reaches its full potential, the different parts of government must work together. Improved intergovernmental co-operation, and greater collaboration between government, business and civil society, so that the cities and towns stretching across and beyond the boundaries of the Gauteng province can be made to work better as a more integrated, productive and sustainable whole, is at the heart of the idea of a Gauteng City-Region.

Identified Development Sectors

The Gauteng City Region Strategy identified the following main sectors for future development / expansion:

- ✓ Mining,
- ✓ Manufacturing,
- ✓ Financial and business services,
- ✓ Innovation and trade.

4.3.4 THE GAUTENG TRADE AND INDUSTRY STRATEGY 2003

The Gauteng Trade and Industry Strategy (GTIS), 2003, adopts a broad approach to the economic development of the province and is comprised of five strategic thrusts:

- ✓ The re-alignment of the manufacturing sector towards more sophisticated and value-added production
- ✓ The development of Gauteng province as the smart 'capital' of South Africa
- ✓ The development of the finance and business tourism sectors
- ✓ Encouragement of new business activity to draw in participants in ownership and management levels from a wide spectrum of people
- ✓ Employment generation and the benefits of this in income redistribution and poverty alleviation.

The GTIS identifies two strong economic sectors in Gauteng, which are a pivotal focus for the growth strategy, namely the *financial services sector and business tourism*.

Identified Development Sectors

The Gauteng Trade and Industry Strategy identified the following main sectors for future development / expansion:

- ✓ Manufacturing
- ✓ Innovation
- ✓ Business tourism
- ✓ Financial services

4.3.5 GAUTENG INDUSTRIAL POLICY FRAMEWORK (2010-2014)

The Gauteng Industrial Policy Framework (2010-2014) has identifies some main industrial sectors future development should be focused on. These primary sectors include:

- ✓ Food and beverages - Including agro-processing
- ✓ Furniture - Role of Government as a consumer of furniture should be considered
- ✓ Textiles and Clothing - Focus on innovation and new technology, export capabilities, achievement of firm and value chain competitiveness training and incentive support measures
- ✓ Construction
- ✓ Machinery and Equipment - Specific emphasis on manufacturing of power boilers, valves and pumps
- ✓ Automotive and Components

Following is a brief overview of the different main sectors identified by the Gauteng Industrial Policy Framework (2010-2014) for future investment and development.

FOOD AND BEVERAGES

The Food and Beverages sector was highlighted as a potential strategic sector through our input-output analysis on the basis of maximising both backward linkages and employment multiplies.

The Strategy for a Developmental Green Economy in Gauteng highlights local food production as an important strategy. It recommends that Gauteng should address food security by increasing the production of food within Gauteng Province whilst simultaneously generating significant employment and building a stronger regional food economy through diversification and value-adding initiatives. To this extent, the recommendations of the Green Strategy are very much in line with recommendations here that have been based upon maximising backward linkages and employment multipliers.

In addition, Agro-processing, linked to food security and food pricing imperatives has been identified as a new area of focus for national industrial policy. Provincial programmes can both complement and utilise a number of Key Action Plans outlined in IPAP2. These include:

- ✓ Establishment of a National Food Control Agency,
- ✓ Development of the organic food sector,
- ✓ Development of *high-value agriculture niche markets*,
- ✓ Competitive enhancement in the fruit and vegetable canning industry,
- ✓ Promote exports of beneficiated Rooibos and Honeybush products.

FURNITURE

The once promising industry that had faster export growth than import growth at the start of democracy has fallen prey to stiff import competition. Much of the growth in furniture exports was attributable to the depreciation in the Rand/\$ exchange rate which made South African

exports competitive. The appreciation in the rand as commodity prices have risen has reversed this trend.

The main constraints to greater backward integration of the furniture supply chain come from the high costs of raw materials namely timber and steel. These high costs have led to the substitution of locally produced inputs for imports. While in principle, importing components for domestic value addition can make economic sense, we argue that the uncompetitiveness of local components such as springs and foil are the direct result of anti-competitive pricing of raw materials. The uncompetitive pricing of key raw materials, including steel, is serious constraint faced by many manufacturing industries and must be addressed at the national level. Provincial government might be able to complement national strategies to reduce the cost of key inputs through interventions that give incentives for the use of domestic inputs, for example through lower borrowing rates for the purchase of local inputs.

Local suppliers of intermediate inputs find it difficult to supply smaller furniture manufacturers owing to the need for bulk orders in order to produce. Here provincial government might extend support to SMMEs in terms of collective sourcing of intermediate inputs. Such an intervention would strengthen backward supply chain intervention.

Another constraint faced by furniture suppliers in terms of upgrading to higher value-added production comes from the lack of investment in technology and innovation. *Gauteng has the largest concentration of furniture manufacturers in the country.* There is therefore scope for the provincial government to engage with and strengthen furniture industry associations in order to provide a conduit for knowledge and skills enhancing programmes, possibly by engaging with foreign partners in order to transfer key knowledge of export markets.

The power of retailers compared with furniture manufactures has had the effect of eroding margins for furniture manufacturers who find it increasingly difficult to compete with imports on the basis of price. Here, the development of the Gauteng Brand and incentives for retailers to stock locally produced furniture can have a positive effect on the development of the provincial furniture industry.

Further, the role of Government as a consumer of furniture should be considered. Schools, clinics, hospitals and government departments and agencies require furniture. As a major customer, government can break the stranglehold of retailers on the value-chains through purchasing directly from producers. Government can support domestic producers through developing long-term relationships and contracts with producers.

There could be massive demand for furniture as a result of increased access to housing due to national and provincial government initiatives to increase housing stock. It would seem that consideration should be given to South African mass production of affordable, decent quality furniture for low income households. There could be scope for mass production by larger manufacturers or there could be support for small and medium manufacturers that meet local needs. At a minimum government should coordinate the supply chain between the housing delivery agencies, contractors, furniture manufacturers, trade unions and community representatives. Government support could further extend to developing quality standards and ensuring that prices are kept within an affordable range for furniture for low income households, particularly those supported by housing delivery.

There is evidence that many furniture retailers exploit poor consumers through the types of financing arrangements they offer these consumers. Government should examine the possibility of regulation of financing arrangements. Gauteng Province could also consider direct state involvement in provision of short-term lending for purchase of furniture, white goods and appliances. Larger manufacturers of furniture for low income households should be encouraged and incentivized to get involved in retailing and finance as well.

Government could support small producers by reducing barriers to entry to the industry and ensuring great value chain coordination and clustering. Government could support facilitating specific types of infrastructure, capital equipment and services that are too expensive for individual SME manufacturers to do in-house. Government could also negotiate with inputs suppliers to ensure that SMEs are supplied and to limit the disadvantages of size with regard securing timely supply of inputs. Government support for retailing and distribution would also help SMEs.

The need for technological upgrading and innovation within the industry has also been highlighted as an important mechanism to enhance competitiveness. In the absence of technology transfer via access to export markets, there is scope for interventions in the cooperative upgrading of the industry into higher value added product lines.

TEXTILES AND CLOTHING

The current IPAP (2010) states among others - the following opportunities for development in the sector:

- ✓ improving competitiveness through a range of interventions including a focus on innovation and new technology, export capabilities, training and incentive support measures;
- ✓ the achievement of firm and value chain competitiveness through the further implementation of the Clothing and Textiles Competitive Programme (CTCP);
- ✓ the recapture of the domestic market through value chain competitiveness upgrading; implementation of production incentives; development of SME clusters in CMT production.

Opportunities for strengthening backward linkages from apparel manufacturing to textiles are scarce and previous efforts have been unsuccessful. In terms of supply chain development, opportunities lie within clothing manufacturing through upgrading into higher value-added production.

The sector faces a number of serious constraints in terms of diversifying away from low value-added manufactures. The strength and volatility of the Rand and the surge in illegal imports from China have both had negative effects on the sector. While the exchange rate cannot be dealt with at the provincial level, there is much that can be done to curb illegal imports through better policing of large wholesale and retail outlets.

The lack of skills, particularly at the management level, has been identified as a constraint faced by the industry. The IPAP outlines national level interventions for skills development. Such interventions can be made more effective at the local level by taking into account the particular structure of clothing manufacturing taking place in the province. For example, programme design and implementation of micro CMTs located in Johannesburg CBD require different interventions from a clothing manufacturer employing 50 people. The organisation of CMT microenterprises into cooperative structures, and the formalising of informal manufacturers, will facilitate support and intervention in skills development and innovation. Sector specific technology and skills upgrading programmes can also be rolled out through support for SMMEs.

CONSTRUCTION

More specifically on the provincial side, the following institutional problems were highlighted:

- ✓ The local/provincial governments are not planning properly. This is attributed to the constant change in procurement personal with every election cycle. Therefore a person who has been employed on a five year contract has a short term planning horizon.

- ✓ Lack of technical expertise within government as these have either retired or have been released as a result of employment equity. Therefore, provinces are without personal that can identify bottlenecks in the infrastructure and thus design plans to correct them.
- ✓ Provinces are not spending their budget allocations fully.

While construction companies tend to be geographically dispersed across the province, there is significant cooperation between construction firms. Construction firms with large contracts will often subcontract others. There is also cooperation in the joint submission of tenders.

The cooperative nature of construction firms and the well integrated upstream supply chain act as a strong basis on which the provincial government can enhance efficiency further by enhancing the procurement process on the demand side. Efficient procurement systems and an up to date central supplier database will enhance the ability for the province to use procurement as a policy lever for industrial development. Further, the government could also help making it easier for civil construction firms to take advantage of the infrastructural demands within the rest of the continent as is done by other states such as France.

MACHINERY AND EQUIPMENT

Machinery manufacturers suffered in the wake of trade liberalisation. Many found themselves unable to compete with imports and have therefore either stopped producing or have become assemblers based on imported inputs and distribution channels for foreign firms. Machinery relating to mining and municipal infrastructure has the largest local demand. *Power boilers, valves and pumps remain important machinery manufacturers within Gauteng.* The main constraints faced by these manufacturers have been identified as competition from imports and a strong Rand.

On the demand side, much can be done in terms of improving government procurement processes for the on-going maintenance of municipal infrastructure. There can also be better incentives for procurement of locally manufactured machines and equipment.

On the supply side, there has also been increasing competition from imports in intermediate inputs, particularly in terms of cast metal components. Once again, the major constraint faced by local manufacturers of intermediate inputs is the high price of raw materials: steel and scrap metal. While IPAP outlines national level interventions through the stronger implementation of competition policy, provincial government can intervene to complement these efforts. First, there can be better incentives such as better borrowing rates for firms who procure locally produced intermediate inputs. Recapitalisation and upgrading of the foundry industry through government programmes could also help to in part offset the high costs of raw material inputs.

DED, through the Gauteng Tooling Initiative (GTI) and also the National Foundry Technology Network (NFTN) that is located at the CSIR, will work toward the recapitalisation of the industry and the development of much needed industry skills. The GTI is therefore listed as a strategic programme in this GIPF to emphasise the interconnectedness of different initiatives.

AUTOMOTIVE AND COMPONENTS

OEMs have less autonomy over their procurement policy because these decisions are centralized at the parent company level with the help of global mega suppliers. The once diverse component manufacturing sector has been rationalized.

Two spheres of government must come on board to assist the autos sector. The president of the National Association of Automotive Component Manufacturers, Ken Manners, says that government's continued support is required to "equalise our global base of competitiveness because of:

- ✓ Distance to [major] markets
- ✓ Subsidised competitors (especially investment subsidies)
- ✓ Raw material monopoly
- ✓ Costly ports and domestic logistics.

A Gauteng based OEM stressed the importance of improving the transport infrastructure because high costing logistics are contributing to South Africa's lack of competitiveness in vehicle assembly. A representative of the auto components manufacturers requested that the Gauteng government must liaise with the sector more often in a structured format so that they can discuss manners in which the province can be of more assistance. Logistical constraints were also highlighted by the auto component representative as a barrier to trade.

Identified Development Sectors

The Gauteng Industrial Policy Framework identified the following main sectors for future development / expansion:

- ✓ Food and beverages - Including agro-processing
- ✓ Furniture - Role of Government as a consumer of furniture should be considered
- ✓ Textiles and Clothing - Focus on innovation and new technology, export capabilities, achievement of firm and value chain competitiveness training and incentive support measures
- ✓ Construction
- ✓ Machinery and Equipment - Specific emphasis on manufacturing of power boilers, valves and pumps
- ✓ Automotive and Components

4.3.6 GROWTH AND DEVELOPMENT STRATEGY FOR GAUTENG (2010-2014)

The six (6) growth sectors and clusters, listed below, were identified for targeted and increased support and investment. The targeting was based on the potential and opportunities that these sectors offer in terms of nominal and real investment growth, value added growth, employment growth and productivity (value added / employee).

These sectors and clusters are:

- ✓ Smart Industries (including ICT, Pharmaceuticals)
- ✓ Trade and Services (including Finance and Film)
- ✓ Tourism
- ✓ Agriculture (agri-processing and bio-tech)
- ✓ Manufacturing (steel related industries, automotive parts and components, Beer and malt)
- ✓ Infrastructure expansion and investment

The GDS process entailed sectoral focus groups with most of these sectors. Specific business plans will be developed for ideas generated through this consultative process.

Identified Development Sectors

The Growth and Development Strategy for Gauteng identified the following main sectors for

future development / expansion:

- ✓ Smart Industries (including ICT, Pharmaceuticals)
- ✓ Trade and Services (including Finance and Film)
- ✓ Tourism
- ✓ Agriculture (agri-processing and bio-tech)
- ✓ Manufacturing (steel related industries, automotive parts and components, Beer and malt)
- ✓ Infrastructure expansion and investment

WEST RAND DISTRICT MUNICIPALITY

4.3.6 WEST RAND DISTRICT: VISION 2016 AND THE GREEN IQ

Vision 2016 entails dissolving the four local municipalities with the District, into a single municipality by 2016. This vision includes a holistic approach to environmental concerns, involving *recycling, renewable energy and beautification* of our streets and parks by planting 10 000 trees.

The following strategic priorities/key focus areas have been identified by the 2016 Vision for the West Rand District and will form the basis for the development of the “Strategic Priorities” for the Regional GDS:

- ✓ Spatial integration
- ✓ Physical infrastructure
- ✓ Economic development
- ✓ Environmental management
- ✓ Social development
- ✓ Governance

There are opportunities for developing economies to benefit from climate change mitigation strategies and the Region will be making a strong case for private investors to assist in the growth of green and sustainable industries. Renewable power generation is our priority sector. We are currently investigating the replacement of street lights with more sustainable and affordable alternatives as well as the installation of alternative energy sources in our housing developments.

The Green IQ is a commitment to make the West Rand District the greenest district in South Africa and to provide an African example of how sustainable development is not just a good choice for development, but the best choice. The Green IQ is a comprehensive strategy, built on 5 pillars, namely:

- ✓ *PEOPLE....*Our goals is to create a place where people come first, a place characterized by equity, dignity and possibility; where everyone has the opportunity to build a better life for themselves, their children and their children’s children.
- ✓ *ECONOMY....*Our economy will be restructured to seize the opportunities of tomorrow; to foster local resilience; to serve the people of the West Rand and to be an example of participatory prosperity.
- ✓ *ENVIRONMENT....*We will ensure that our precious natural resources are available for future generations; create a low-carbon built environment dedicated to quality of life; and regenerate rural areas with a new sense of purpose.
- ✓ *ENERGY....*We will facilitate the creation of new independent power producers to generate renewable, affordable and reliable energy to power new industries and create competitive advantages.

- ✓ **INNOVATION...** The West Rand will establish itself as a centre of excellence in green technology and green living; we will attract the best minds; and we will encourage and support the industries of the future.

The Green IQ is a vision of a new and better way of living and we owe it to future generations to seize the opportunity to make it real. A “*Green IQ Strategy*” will be further developed and rolled out to achieve this goal. Every department and every unit of our municipalities will unite behind this objective.

Identified Development Sectors

The West Rand District: Vision 2016 and the Green IQ identified the following main sectors for future development / expansion:

- ✓ Green economy
- ✓ Technology and innovation

4.3.7 WEST RAND DISTRICT MUNICIPALITY REGIONAL SPATIAL DEVELOPMENT FRAMEWORK

The purpose of the West Rand District Municipality's Regional Spatial Development Framework (RSDF), *West Rand 2020*, is to chart a way forward for the current and future development of the region. The key strategies summarize the approach that is needed to develop the district area and are as follows:

- ✓ Managing the growth of the district:
 - Urban edge
 - Infrastructure provision and management
 - Managing suburban and rural development
- ✓ Developing quality place
 - Activity centres and nodes
 - Sustainable neighbourhoods and housing
- ✓ Promoting and managing regional and local accessibility
 - Road linkages
 - Public transport
 - Pedestrians
- ✓ Providing and managing environmental areas and an open space network.

The principles of the RSDF are integral to the manner in which the RSDF should be implemented and ought to shape the RSDF and guide decisions on planning transport and infrastructure investment. These principles are:

- ✓ *Inclusive growth and development* – where everybody shares in the benefits from a multi-sector and diverse economy and quality developments
- ✓ *Quality designed developments and environments* – where new and re-developed developments contribute positively to creating better urban and rural environments
- ✓ *Clean and safe environments* – where people can enjoy and partake in social and recreation events, be proud of their communities and business are willing to invest and develop
- ✓ *Viable infrastructure and service provision* – growth and development ought not to put a burden on the financial capacities of the district and infrastructure and services should be planned and developed in a manner that it is affordable for the communities as well as the district.
- ✓ *Adaptability* – the district will have to monitor future and past trends in order to be prepared to adapt strategies and policies when faced with changes and unexpected situations.

The West Rand District Municipality's Spatial Development Framework provides a preferred development approach and the necessary guidance to achieve this. It specifies how areas should be developed and what the important issues are that should influence the time of development. The SDF objectives that need to be taken into account with regards to spatial planning and integration are:

- ✓ *Ensure the WRDM is connected* – with more people enjoying the benefits of flourishing activity centres where shops, jobs, services and recreation are within asking and travelling distance of their homes, with fast and reliable travel to and from local centres and regional opportunities, with a comprehensive, efficient and networked public transport system and pedestrian routes and access to rural and tourism areas.
- ✓ *Ensure the WRDM is attractive* – with quality urban and rural areas that are well-maintained, new developments which comply with high design standards, clean and safe environments and well-preserved heritage and natural areas.
- ✓ *Ensure the WRDM is sustainable* – with resources well managed and planned for, viable and cost-effective service provision; and where the environment is valued as a vital resource and meaningful open space is provided for all.
- ✓ *Ensure the WRDM is well managed* – where development decisions are predictable, fair and cost-effective, partnerships are developed, planning takes place on a continuous basis, formal systems for data collections are in place, and data is used to support and improve planning.

The urban edge as defined by the West Rand District Municipality's Spatial Development Framework (SDF) should be seen as a vital tool in achieving spatial integration. The challenge of urban sprawl and outward urban growth and development can be addressed through the implementation of the urban edge by focusing on densification, infill and restructuring. The urban edge should therefore not be restrictive but should be adaptable according the business principles and trends.

The WRDM SDF has a minimalistic approach which uses the existing line of urban activity as the Urban Edge, and which requires that all future urban expansion beyond the urban edge only be allowed following a formal SDF review process that complies with the IDP review criteria.

The WRDM SDF has therefore been created to guide development patterns and to contribute towards addressing the spatial imbalances that have been created in the past.

The challenges faced by the West Rand District with regards to spatial integration include the following:

- ✓ Dispersed and fragmented city centres
- ✓ Lack of variety of public transport modes
- ✓ Urban sprawl
- ✓ Inadequate land use management practices (including land reform, restitution, distribution)
- ✓ Lack of integrated development planning
- ✓ Urban edge limiting development
- ✓ Limited developable land (e.g. dolomite, heritage sites)

The following key strategies/processes need to be implemented in order to address the spatial challenges within the District:

Suitable Development Planning Around Dolomitic Areas

- ✓ Spatial planning needs to take into account dolomitic areas and shallow undermined areas as well as high potential agricultural land. Large parts of the Districts are

characterized by dolomitic land, making growth/development more costly than would be desired.

- ✓ Investigate and promote new, exciting and unique developments on dolomitic land such as extreme sporting facilities (e.g. 4x4 and off-road sporting facility, etc.). These developments do not require large structures and construction and is therefore better suited for the dolomitic land in the area.
- ✓ Strive towards changing the Districts limitations and challenges into strengths and opportunities.

Optimise Opportunities/Spin-Offs From Neighbouring Areas' Initiatives:

- ✓ E.g. Lanseria Airport (freight opportunities), Cradle of Humankind (tourism opportunities) and the North West Province (agricultural opportunities)

Nodal Densification

- ✓ A multi and mixed-use approach to activity patterns in the nodes will be used to ensure high intensity of land use.

Corridor Development and Diversification

- ✓ Detailed planning in regards to the N14 Development corridor and future development and diversification of land uses along this route.
- ✓ The opportunities presented by the development corridors in the area (e.g. N14) should be fully exploited and promoted

Mining Rehabilitation to Increase Land Availability

- ✓ The rehabilitation of old, degraded mining areas and associated slimes dams/mine dumps can result in general upgrading of the environment but also release developable land parcels

Informal Settlement Management

- ✓ Prevent land invasion and the spread/increase of informal settlements through fast-tracking human settlements provision. With a backlog in housing delivery, the spread of informal settlements will keep on increasing.
- ✓ Formalise informal settlements through funding, landownership and basic service provision.

Development Incentive Schemes

- ✓ Develop and manage appropriate incentives and growth management tools and mechanisms to promote investment to the area.

Urban Renewal and Inner City Rejuvenation

- ✓ Focus on urban renewal and inner city rejuvenation within key nodes to attract investment.
- ✓ The necessary land use control and spatial strategies need to be developed and implemented to ensure the spatial integration of the region.

Identified Development Sectors

The West Rand District Municipality Regional Spatial Development Framework identified the following main sectors for future development / expansion:

- ✓ Infrastructure development
- ✓ Social and community development
- ✓ Environmental development

4.3.8 WEST RAND DISTRICT MUNICIPALITY - REGIONAL GROWTH AND DEVELOPMENT STRATEGY

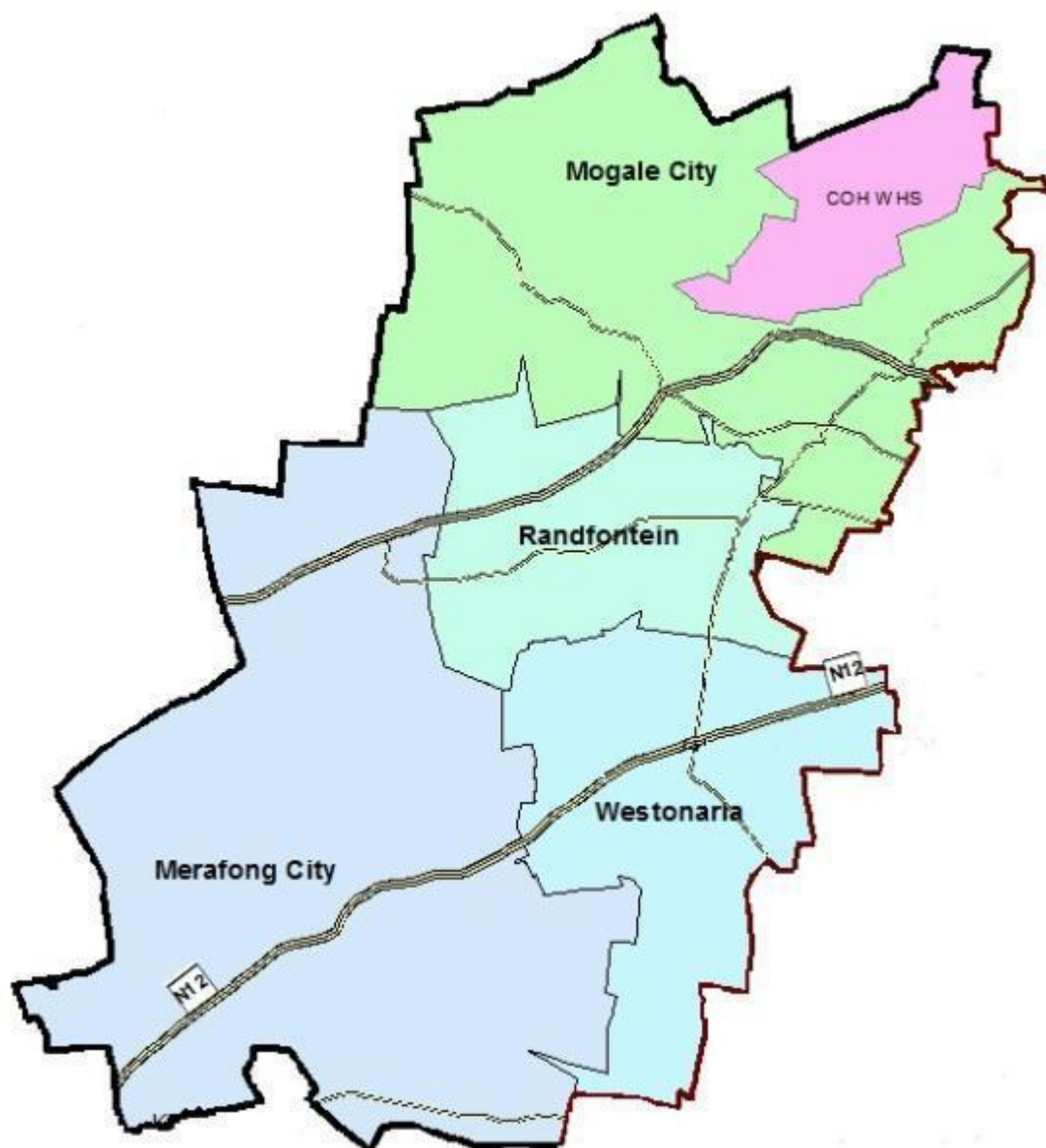
The West Rand District Municipality is a Category C District Municipality. It covers approximately 2,442.4 km² in extent and has a population of 791,273.

- ✓ Merafong City Local Municipality, covering a total area of 1630.57 km²,
- ✓ Mogale City Local Municipality, covering a total area of 1120 km²,
- ✓ Randfontein Local Municipality, covering a total area of 442.4 km²,
- ✓ Westonaria Local Municipality, covering a total area of 637.6 km², and
- ✓ The Cradle of Humankind World Heritage Site (under management of the Gauteng Tourism Authority), covering a total area of 242.4 km².

The spatial structure of the district is predominantly rural. The main areas of economic activity in the West Rand District are *Krugersdorp, Randfontein and Westonaria*. The dominant land uses include *residential, mining and agriculture*. The following spatial and physical characteristics are common throughout the District (refer to Map 4.7):

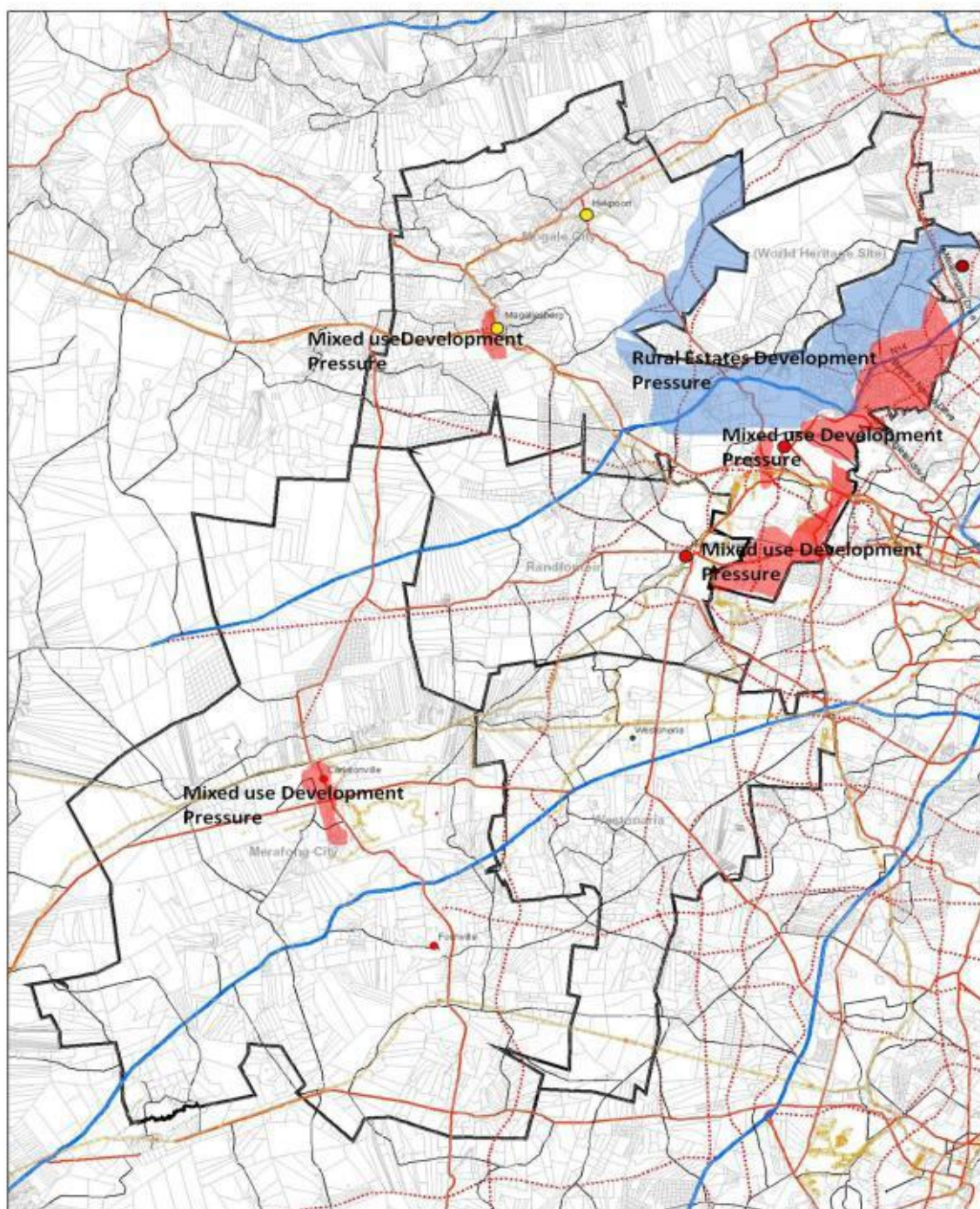
- ✓ The main structuring elements in the district is N14 and N12, cutting parallel to each other, forming a strong south-east to north-west linkage. R28 act as a seam in the context of the District connecting the main movement lines in a north-south direction.
- ✓ The R500 provides the north south direction connecting to the N14 to the north
- ✓ The R512 (Malibongwe drive) provides access to Lanseria Airport
- ✓ The 559 creates a linkage between Randfontein and Soweto
- ✓ The district is characterised by the mountain ranges of Magaliesberg to the north west
- ✓ Development and settlements are concentrated towards the east of the district
- ✓ Due to mining activities and their development buffer zones in the district, the main economic centres in the district display a dispersed and fragmented form.
- ✓ The district is largely dolomitic, which acts as a structuring element/restrictive factor in terms of land use patterns
- ✓ Tourism and conservation opportunities exist in most of the Local Municipality areas, especially in the north and north-east, including the Cradle of Humankind WHS.
- ✓ Agriculture is a potentially important sector, predominating on the western side of the district (agricultural holdings)
- ✓ The settlement patterns of the area are a reflection of development dynamics and include historical residential patterns and trends, the related social and economic profile of the population, the economy and concentration of economic activity spatially, transportation infrastructure, engineering infrastructure, land availability and planning initiatives.

Map 4.7: Local Municipal Areas of West Rand District



- ✓ Development pressure translates into a continuous sprawl of development into the rural areas, which needs to be controlled to preserve and maintain the rural character of the area.
- ✓ Dolomite, slopes, red data species, mining activities, nature reserves and undermined areas are environmental issues to be considered.
- ✓ Specific roads and rail routes act as conduits of development and to link development zones with each other and with areas beyond the WRDM.
- ✓ The district is characterised by a significant amount of mine dumps, otherwise referred to as “Golden Sand”, bearing witness to the significant impact of mining in the district and Gauteng.

Map 4.8: Key Spatial Characteristic of the WRDM



The following key strategies summarise the approach that is needed to spatially develop the district area:

- ✓ Managing the growth of the district
 - Urban edge
 - Infrastructure provision and management
 - Managing sub-urban and rural development
- ✓ Developing quality places
 - Activity centres and nodes
 - Sustainable neighbourhoods and housing
- ✓ Promoting and managing regional and local accessibility

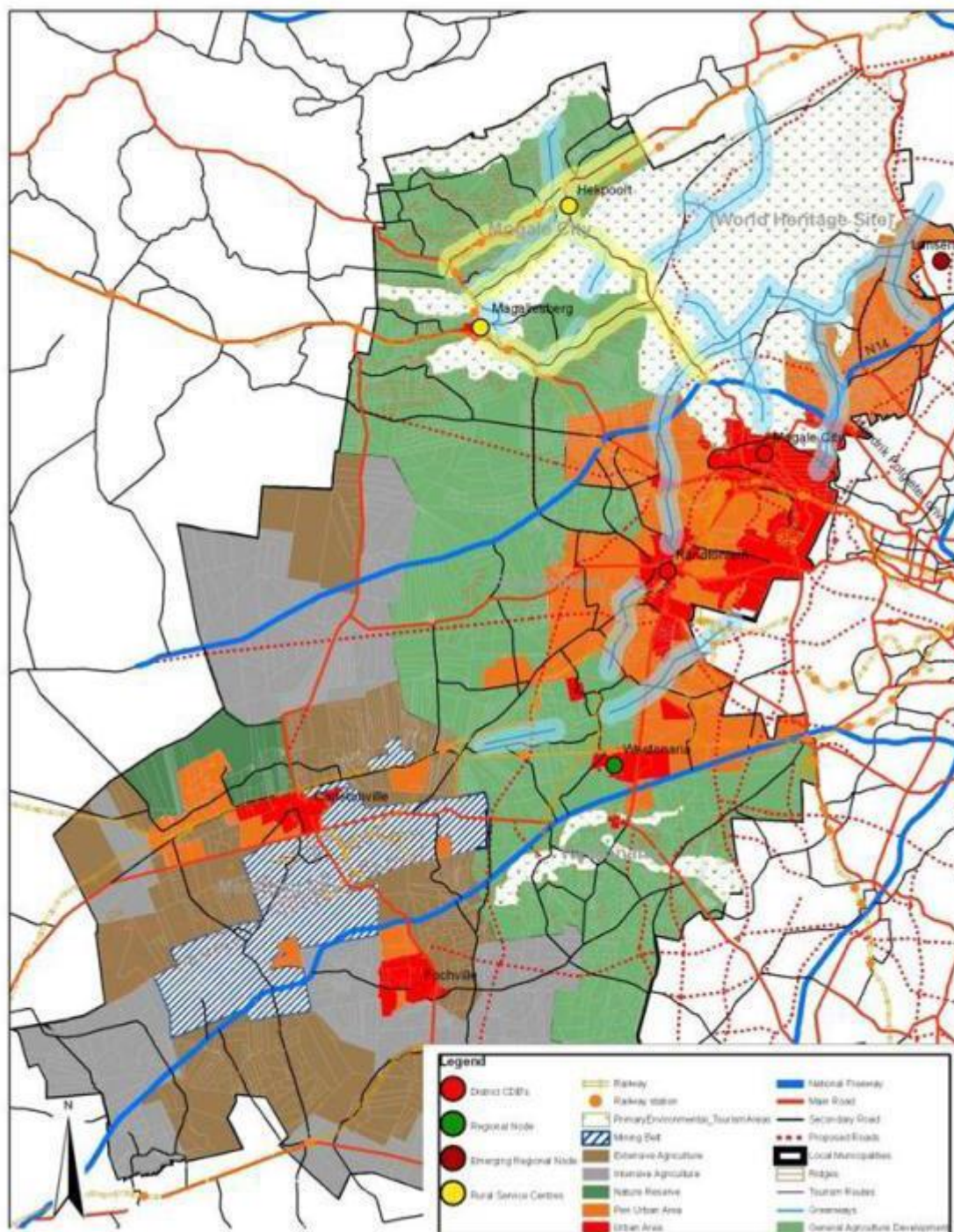
- Road linkages
 - Public transport
 - Pedestrians
- ✓ Providing and managing environmental areas and an open space network

Map 4.9 illustrates the conceptual development framework for the district. The key activity nodes and centres identified within the WRDM Regional SDF are outlined in Table 4.2. Local and emerging local nodes as well as rural service centres are identified in the local municipal SDFs.

Table 4.2: WRDM Activity Nodes and Centres

Node	Existing/Proposed function and guidelines
District CBDs: ✓ Krugersdorp ✓ Randfontein	✓ Primary node – mixed use economic node ✓ Of district importance in terms of attracting people beyond the municipal boundaries
Regional nodes: ✓ Westonaria ✓ Muldersdrift	✓ Secondary and emerging secondary nodes – mixed use economic node ✓ Serve specific sub municipal regions and fulfils a variety of functions
Local nodes: ✓ Randgate ✓ Greenhills ✓ Etc.	✓ Serves on or more neighbourhoods or settlements ✓ Fulfils a variety of functions with a sufficient mix of uses ✓ Uses are predominantly of a local nature
Rural service centres: ✓ Fochville ✓ Tarlton ✓ Hekpoort ✓ Etc.	✓ Serves specific sub municipal regions and specifically rural communities ✓ Contains the sprawl of periphery settlements

Map 4.9: WRDM Conceptual Spatial Development Framework



TRANSPORTATION LINKAGES AND INFRASTRUCTURE

The WRDM is serviced by National, Provincial and Local roads. The N12 and N14 are the two National roads that cross the district in a west to north eastern direction. These routes generally provide good regional access between the WRDM and Johannesburg to the east, Pretoria to the north and the NW Province to the north-west.

Road infrastructure in the residential areas is generally poor because of e.g. lack of maintenance, improper rehabilitation and pressure from new developments. According to available data, the extent of the provincial road network within the jurisdiction of the WRDM

is 1 529.8 km. The majority of the roads are provincial tertiary roads with an inter-district mobility function.

Movement linkages are essential as they increase a region's connectivity and access to economic and learning opportunities. The district is well serviced in terms of east-west regional linkages and these directly link the WRDM to the northern and central Gauteng economic powerhouses to its east and the agricultural and mining zones of the North West Province to its west. The economic and developmental benefits that these linkages have added to the district itself so far are still relatively minimal.

On the other hand the district has not at all been able to create and sustain strong north-south linkages that centralise it between the Free State Province and the eastern parts of the North West Province such as the Bojanala Local Municipality.

Taxis dominate the public transport operations in the District. Bus transport in the district is very limited with no subsidised commuter services, apart from contracted learner transport services that are provided in the predominantly rural area.

The West Rand District Municipality does not own any rail infrastructure. The commuter rail services operating in the West Rand belong to the South African Rail Commuter Corporation (SARCC). The SARCC, which is an agency of the National Department of Transport (NDoT) owns all of the rail commuter lines and all of the rolling stock. The station buildings are the property of Intersite which is a property division of the SARCC.

The commuter rail services are operated by MetroRail, a division of Transnet Limited. Metrorail operates all rail commuter services throughout the country on a concession basis. It is important to note that the rail planning function is a national responsibility. Apart from the railway line network and layout, the signalling system has a major impact on the performance possible by train services operated on the network.

According to the latest available information from the *Gauteng Rail Passenger Transport Status Quo Overview* only two main rail commuter services operated within the jurisdictional area of the West Rand. These commuter services are:

- ✓ Midway – Oberholzer – Johannesburg
- ✓ Langlaagte – Randfontein – Johannesburg

The Integrated Development Plan of the West Rand District Municipality, specifically with regards to the Nodal Development Strategy, identifies the Lanseria Airport Node as an important Strategic Project and Programme.

The Lanseria airport node is an important development for the Cradle of Humankind. The airport could influence the development of the K29 road with the development of Cosmo City. The K29 road serves as a regional corridor between Johannesburg area and Rustenburg area and it also connects with the Platinum toll road as spatial corridor.

MAJOR ENVIRONMENTAL CONSTRAINTS

The West Rand District has certain environmental issues which constraints development within the area. The major environmental constraints include:

- ✓ Dolomitic areas
- ✓ Air pollution
- ✓ Acid Mine Drainage

DRIVING GROWTH AND DEVELOPMENT IN THE DISTRICT

The purpose of the Regional Growth and Development strategy is to reposition the District as a significant player in order to contribute towards the greater Gauteng Global City Region.

The West Rand District is the next developmental area for the Gauteng region, with a natural progression towards the district and the district being able to develop in any direction. It is therefore necessary for the District to market itself as the next growth zone within Gauteng. And through this approach creating a globally competitive *Uni-city* which is economically prosperous and thriving.

In order to achieve the 2016 Vision of becoming a Uni-City, the District needs to take the following actions:

- ✓ Align resources to achieve a bigger and better impact on service delivery
- ✓ Plot lessons learned to enhance the merger effectiveness towards 2016 and the Gauteng City Region
- ✓ Set norms and standards for a more effective acquisition and use of resources to inform the 2016 vision
- ✓ Contribute to the setting of norms and standard for more effective acquisition and use of resources to inform the Gauteng Global City Region Concept.

The aim of the GCR concept is to build Gauteng into an integrated and globally competitive region where the economic activities of different parts of the province complement each other in consolidating Gauteng as an economic hub of Africa and internationally recognised global city region.

In order to achieve this aim the GCRO have identified the following key success factors:

- ✓ Strong leadership (decision making capacity)
- ✓ A vision and strategy
- ✓ Effective institutional relations
- ✓ Strong economic clusters
- ✓ Connectivity/mobility (goods & people – internal & external)
- ✓ Spatial coalition of partners working together
- ✓ Skills and human capital
- ✓ New knowledge (higher education and research institutions).

Identified Development Sectors

The West Rand District Municipality Regional Growth and Development Strategy identified the following main sectors for future development / expansion:

- ✓ Mining
- ✓ Agriculture
- ✓ Tourism
- ✓ Green economy

4.3.9 THE WEST RAND DISTRICT MUNICIPALITY LOCAL ECONOMIC DEVELOPMENT STRATEGY

The vision of the West Rand LED Strategy is to promote long-term sustainable growth within the WRDM, through job creation, the eradication of poverty and unemployment, meeting the socio-economic needs of the community and diversification of the economic base. The objectives of the West Rand LED Strategy include the following:

- ✓ Higher regional growth
- ✓ Beneficiation of primary products

- ✓ Build upon the comparative advantage of the areas
- ✓ Increase sustainable employment opportunities
- ✓ Increased labour absorption capacity of the economy
- ✓ Creation of competitive skills base
- ✓ Aid the improvement of annual household income
- ✓ Improved living standards
- ✓ Implementing support services
- ✓ Increase SMME opportunities
- ✓ Increase economic linkages in the region
- ✓ Increase municipal capacity building
- ✓ Building partnerships for economic growth and development
- ✓ Promote Broad Based Black Economic Empowerment (BBBEE)

The West Rand LED identified the following strategic thrusts:

- ✓ Thrust 1: Expansion of the Agricultural Sector
- ✓ Thrust 2: Industrial and Beneficiation Development
- ✓ Thrust 3: Waste Recycling/Processing
- ✓ Thrust 4: SMME Development and Support Centre
- ✓ Thrust 5: Human Resource Development
- ✓ Thrust 6: Tourism Development

Identified Development Sectors

The West Rand District Municipality Local Economic Development Strategy identified the following main sectors for future development / expansion:

- ✓ Expansion of the Agricultural Sector
- ✓ Industrial and Beneficiation Development
- ✓ Waste Recycling/Processing
- ✓ SMME Development and Support Centre
- ✓ Human Resource Development
- ✓ Tourism Development

4.3.10 WEST RAND DISTRICT MUNICIPALITY – MARKETING & INVESTMENT STRATEGY

A favourable investment environment is required for any type of development, regardless of sector or projects details. To a certain degree, the success of specific projects is dependent upon interventions to improve the investment environment.

The *Investment Strategy* consists of a number of strategic thrusts, largely based on those underpinning the Global Competitiveness Index (GCI). Each thrust will consist of a number of programmes, representing the key components of each thrust in need of addressing. Finally, a set of functional tasks that are required to implement the programmes will be provided.

The thrusts and programmes to enable investment conduciveness are listed in the below Table and detailed upon there under.

Table 4.3: Business Retention and Expansion Strategic Thrusts and Programmes

Thrust	Programme
1. Good economic governance, communication and strategic partnerships	✓ Improved governance
	✓ Human resources management and institutional transformation
	✓ Communication and information intervention
2. Improved municipal service delivery	✓ Improved service delivery (Electricity and Water)

and economic infrastructure investment

- ✓ Road and transport connectivity
- ✓ Business regeneration and expansion

The following table is a summary of the strategic *Trusts 1* and programmes and detailed actions related to each identified programme.

Table 4.4: Summary of Business Retention and Expansion Interventions – Thrust 1

Thrust 1: Good Economic Governance, Communication, And Strategic Partnerships	
Programmes	Actions
Improved Governance	<p>Governance Structure:</p> <ul style="list-style-type: none"> ✓ Improve intergovernmental relations, coordination and planning ✓ Develop partnerships and facilitate institutional demarcation through economic networks and linkages between entities ✓ Strengthen and build a structured ‘co-opetition’ partnerships with strong regional economic centres such as City of Johannesburg Metropolitan and City of Tshwane Metropolitan ✓ Undertake higher levels of interaction between communities and local municipalities with quality customer care facilities and better service delivery with high levels of maintenance, cleanliness and law enforcement, with associated high levels of public confidence <p>Government Funding:</p> <ul style="list-style-type: none"> ✓ Lobby with role players (i.e. public works, international funding organisations, etc.) ✓ Provide capital budget for the implementation of the programmes and tasks listed in this strategy ✓ Secure off-municipal budget funding for implementation
Human Resources Management	<ul style="list-style-type: none"> ✓ Proactively seek to fill all available positions ✓ Undertake staff survey to determine reasons for high staff turnover rate in order to obtain suggestions for retention and initiate staff retention actions ✓ Conduct a staff skills audit to determine skills gaps and required curriculum for training and undertake vigorous and comprehensive staff training programmes ✓ Develop new staff recruitment methods ✓ Set up a comprehensive list of municipal level economic tasks and functions ✓ Identify needs with regard to availability and/or possible revision of existing manuals ✓ Develop and disseminate procedure manuals for all municipality tasks and functions ✓ Review and align the District organisational structure to strategic objectives
Communication and Information interventions	<ul style="list-style-type: none"> ✓ Inventories of all current investment activities, trends, future plans, skills and financial assistance are required. ✓ Establish a District Advisory Service Centre ✓ A business directory for each municipality should be created to be made available at Local Municipalities. Partner with Chamber of Commerce’s recently released director to develop a comprehensive directory of all businesses in the area. ✓ WRDM and all the Local Municipalities have interactive websites. These websites however require revision with regard to the contents and investor information contained therein. ✓ Assist with the establishment and revitalisation of municipal LED forums by consulting good working LED Forums and LED Departments as learning organisations

	✓ Communicate the aims of the LED Forum, as aligned with the Department of Economic Affairs' Terms of Reference for District LED Forums.
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The following table is a summary of the strategic *Trusts 2* and programmes and detailed actions related to each identified programme.

Table 4.5: Summary of Business Retention and Expansion Interventions – Thrust 5

Thrust 2: Improved Municipal Services Delivery And Economic Infrastructure Investment	
Programmes	Actions
Improved service delivery	<ul style="list-style-type: none"> ✓ Establish a municipal services monitor at the District level, whereby the district maintains a clear investment picture to inform planning, prioritisation and decision-making ✓ Identify and prioritise economic concentrations that do not have access to electricity and water services ✓ Liaise with local municipalities to consider unbundling state services provision to stimulate a local service industry ✓ Launch a district-wide infrastructure maintenance and expansion financing strategy towards building a richer range of infrastructure development alternatives in order to speed up delivery. ✓ Utilise existing inter-governmental structures and local economic development forums to lobby the responsible authorities to prioritise key logistical infrastructure linkage investment benefiting the West Rand District
Road and Transport connectivity	<ul style="list-style-type: none"> ✓ Determine current and future strategic roads and conduct an audit on the state of these roads ✓ Lobby to create better spatial linkages through encouraging SANRAL and other agencies to rebuilding/upgrade the N12, linking the WRDM with the North West Province, as well as the R28/N14, linking the West Rand with the rest of Gauteng, in particular, City of Johannesburg and City of Tshwane. ✓ Overcome freight logistical isolation by supporting manufacturing of low volume and high value goods.
Business regeneration and expansion	<ul style="list-style-type: none"> ✓ Evaluation of businesses in the area and high priority retention targets ✓ Identification of the strengths and weaknesses of the current business climate ✓ Establishment of assistance mechanisms, including marketing, technology and skills development ✓ Identification of business expansion opportunities ✓ Development of mechanism to communicate the identified opportunities to businesses ✓ Formulation and implementation of a business expansion incentive programme

Firms in the District don't operate in isolation from global and national forces and the value chains in which they find themselves embedded strongly in form opportunities for growth and development. Understanding these value chains is also important in respect of attracting new investments and identifying further value added opportunities within the District. The following clusters, in no particular order, have been identified as those with the highest potential to attract investment:

- ✓ **Tourism** – The District has a very rich heritage. The most important tourist attraction being the Cradle of Humankind World Heritage Site. The Cradle of Humankind World Heritage Site has been identified as one of Gauteng's Blue IQ projects (projects designed to maximize job creation and stimulate economic development. The largest part of the COH WHS falls within the boundaries of the West Rand District Municipality

and this bodes very well for tourism development in the WRDM. The West Rand must capitalise on the consequential opportunities for tourism development that will be created, which will allow the West Rand to increase its share of international and domestic tourism arrivals and capitalise on the resultant opportunity for economic growth. The West Rand also have various other leisure and adventure tourism activities.

- ✓ **Agriculture** – Due to the strategic location of the WRDM in relation to the Gauteng Province, the agriculture sector has huge potential to grow and stimulate economic development. The advantage held by farmers within the WRDM is their close proximity to the largest consumer market of perishable food in South Africa (i.e. City of Johannesburg and City of Tshwane). The WRDM has areas with good to excellent agricultural potential, especially in Mogale City and Westonaria. Mogale City is by far the most important agricultural district. The main types of agricultural activities in the West Rand are large-scale commercial farming, intensive commercial farming, urban agriculture, rural residential agriculture and subsistence farming. The WRDM also possesses the potential to develop agro-processing within its borders as the majority of required resources are readily available. The pursuit of this opportunity is in line with the priorities of provincial and national government. The WRDM has been identified by GDARD as one of seven Agricultural Hubs within the Gauteng Province. These hubs have been delineated using farm boundaries and taking into cognizance clusters of commercial and developing agricultural activities taking place in the province. The WRDM also forms part of GDARD's Maize Triangle Project.
- ✓ **Mining and Mineral Processing and Beneficiation** - Mining is still a very important economic sector in the West Rand, both in terms of production and employment. Gold is the most important mineral mined in the WRDM, with some of the largest unmined gold reserves in South Africa. Even though the mining industry in the WRDM has been in decline for the past decade, an increase in international gold prices since 2004/05 has had positive implications for profitability of South African gold mines. Apart from gold, the other mineral deposits mined within the WRDM include manganese, clay, dolomite, serpentine, peat, dimension stone, building sand and nickel. None of the mining products extracted from the WRDM are being beneficiated locally, but are mainly exported to international markets for further processing and beneficiation. This locally available mining produce can be processed locally through the development of mineral processing and beneficiation activities that focus on the training and employment of local people. The establishment of downstream gold activities in the area can include the application of gold in catalysis and other industrial uses such as electronics and dentistry, refinery and jewellery manufacturing. Various benefits exist for the mining industry within the WRDM by strengthening backward and forward linkages.
- ✓ **Manufacturing** – The largest portion of manufacturing output and employment is situated in Mogale City. In terms of manufacturing in the West Rand, Mogale City and Randfontein also have a relatively large number of employees per industry and a large gross output in total. The leading manufacturing industries in the WRDM include food products, textiles, non-metallic mineral products, metal products, machinery, motor vehicle accessories and plastic products. The main industrial centres in the West Rand are dominated by the production of machinery and metal products, which is a result of the influence of the mining sector in the area. The following opportunities have been identified in the manufacturing sector within the WRDM:
 - Industrial Cluster Development around growth sectors that appear to have a (potential) comparative advantage - e.g. industries linked to the mining sector and textiles.
 - Manufacturing opportunities in niche markets – e.g. organic food supplements and bio-medical products

- Manufacturing activities using local produce as inputs – e.g. mining product beneficiation and agro-industrial processing
- Supportive and service industries linked to the mining sector
- Promotion of further investment in currently successful manufacturing activities – e.g. Aranda textiles and Metal products
- Promotion of manufacturing activities in accordance with national initiatives – e.g. Department of Transport Bicycle Project
- Opportunities within the Waste Disposal Sector – e.g. chemical waste processing and refinement.

From the above it can be concluded that the West Rand District's Investment Strategy is built upon a number of strategic interventions that will have a positive impact on the investment environment in the West Rand District Municipality. Recommendations are roughly based on the pillars forming the World Economic Forum's Global Competitiveness Index, which provides insight into factors that determine the competitiveness, and hence the level of investment.

Identified Development Sectors

The West Rand District Municipality – Marketing and Investment Strategy identified the following main sectors for future development / expansion:

- ✓ Tourism
- ✓ Agriculture and agro-processing
- ✓ Mining and mineral processing and beneficiation
- ✓ Manufacturing

4.3.11 THE WEST RAND DISTRICT MUNICIPALITY REGIONAL ECONOMIC DEVELOPMENT PLAN

SECTORAL ANALYSIS

The sectoral analysis provided in this section provides an analysis of the key economic Sectors within the WRDM. The lead Sectors are identified along with the Sectoral threats and Sectoral opportunities. The following Sectors are analysed in this section:

- ✓ Agricultural Sector
- ✓ Mining Sector
- ✓ Manufacturing Sector
- ✓ Utilities & Construction
- ✓ Wholesale & Retail Trade
- ✓ Transport & Communications
- ✓ Finance and Social/Community services
- ✓ Tourism Sector

AGRICULTURAL SECTOR

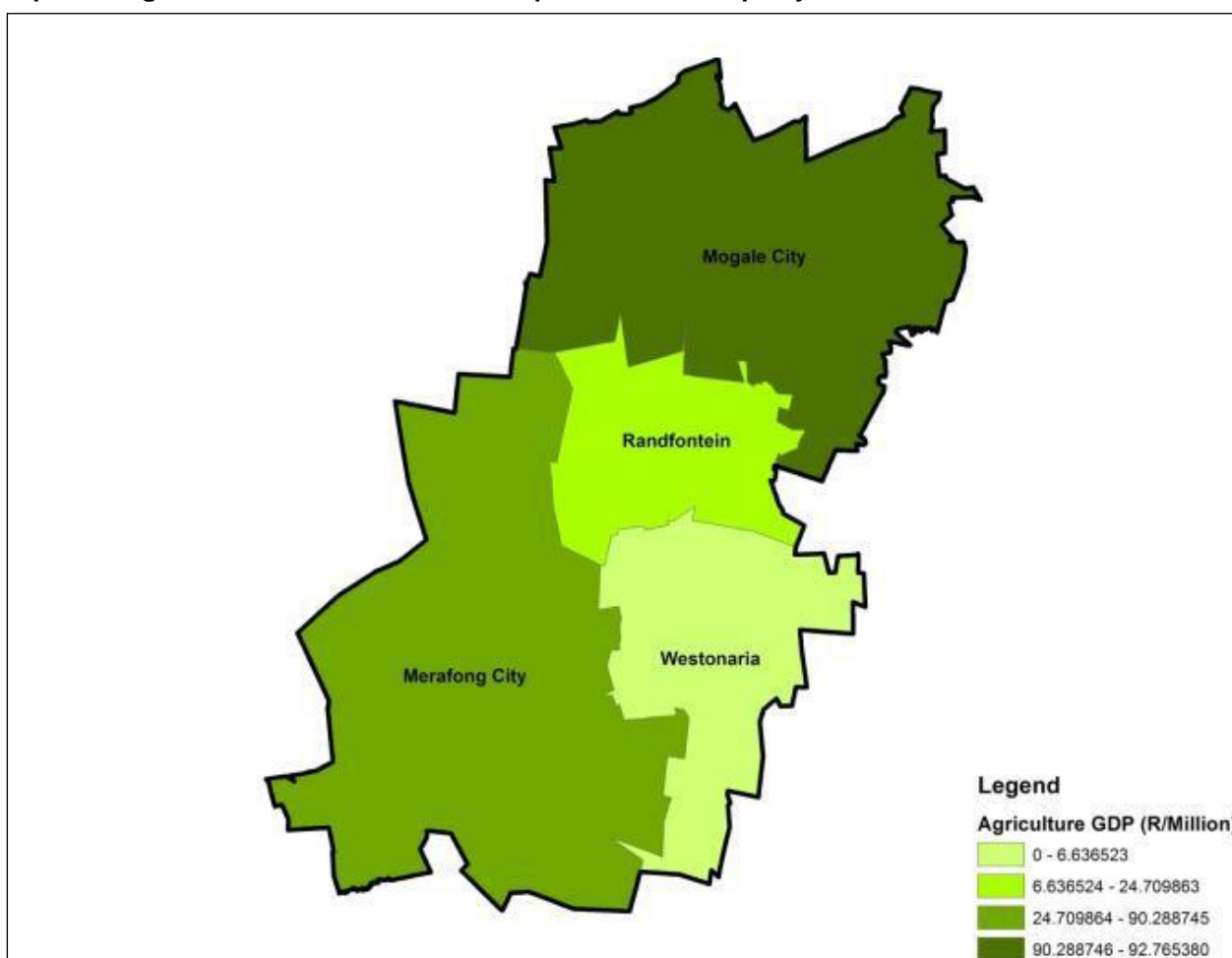
The Agriculture sector incorporates establishments and activities that are primarily engaged in farming activities, but also includes establishments focusing on commercial hunting and game propagation and forestry, logging and fishing.

The Agricultural Sector in the West Rand has repeatedly been identified as a sector with the potential to stimulate economic growth and job creation in the area. Although the sector had a reasonable growth record up until 2001, production in this sector has been in decline since 2002. In addition, agriculture still plays a minor role in terms of contribution to production value, compared to the rest of the West Rand economy.

Some 15% of South Africa's farming output is produced in the Gauteng Province. The province has a dual agricultural economy comprising of well-developed commercial farming and subsistence farming which is predominantly in rural areas. Half of South Africa's agri-processing companies are operating in Gauteng. Johannesburg, Ekurhuleni and Tshwane metropolitan municipalities have more agricultural output or contribution to the GDP in Gauteng due to agro-processing activities taking place within these areas. The agricultural sector in Gauteng provides local cities and towns with daily fresh produce. And it should also be noted that a large part of Gauteng falls within the so-called Maize triangle

Map 4.10 presents the agricultural contributions of all the local municipalities within the West Rand District towards the District GDP.

Map 4.10: Agriculture GDP Concentrations per Local Municipality

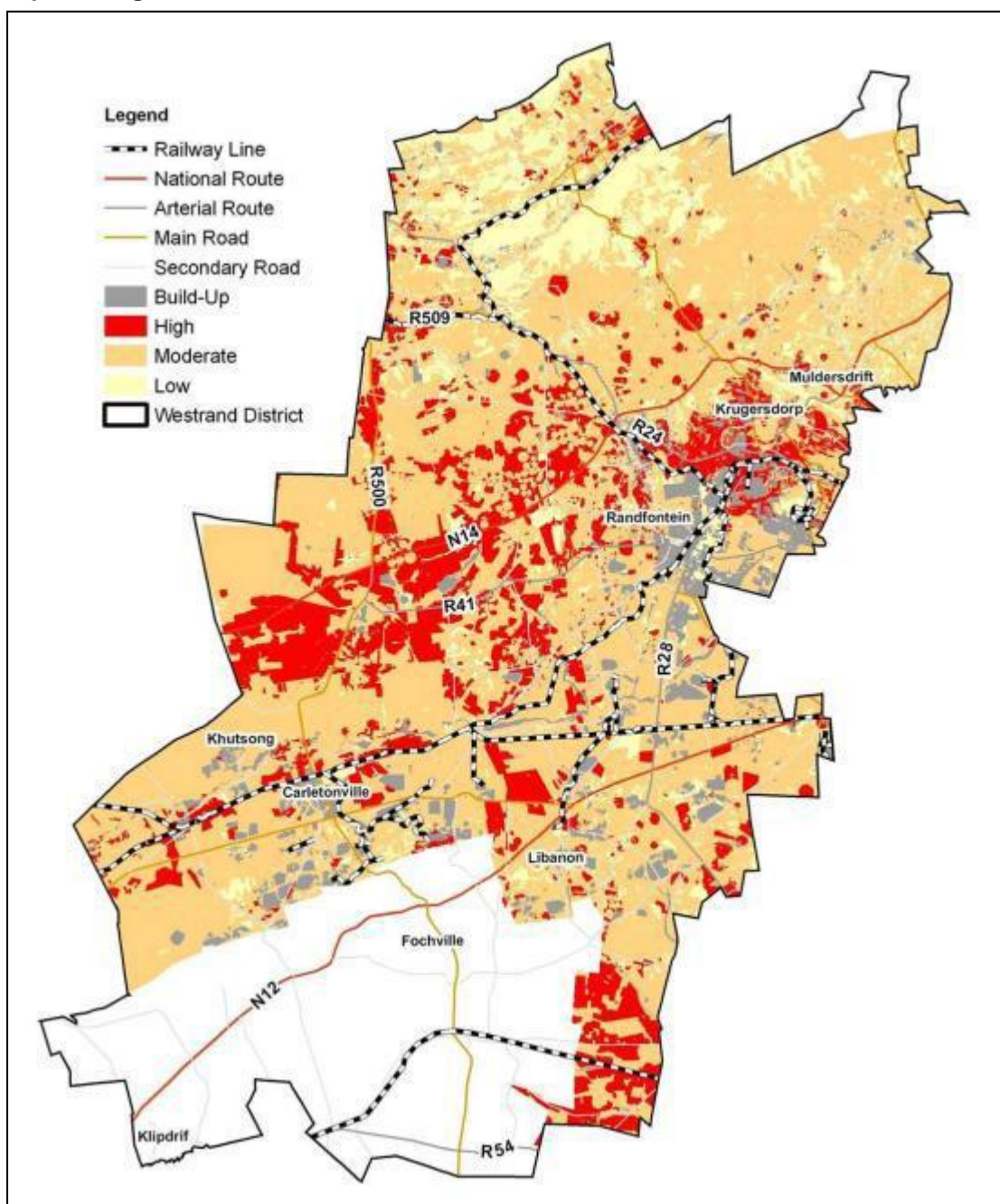


From the figure it is evident that in order of importance for the agricultural industry GDP, the municipalities are: Mogale City LM, Merafong City LM, Randfontein LM and Westonaria LM.

The West Rand District has areas with excellent or good potential agricultural land, especially Mogale City, as well as in Westonaria. The following map presents the Agricultural Potential of the West Rand District.

Mogale City is by far the most important agricultural district in the West Rand, contributing about 43% to the GDP contribution in the district.

Map 4.11: Agricultural Potential of the WRDM



As is evident from the figure above, there are areas with excellent or good agricultural potential, especially in Mogale City, as well as in Westonaria and Merafong City. Mogale City is also by far the most important agricultural district in the West Rand. Even though Westonaria has been identified as an area with high potential agricultural land, it is rarely used for these purposes due to high mining activity.

MAIN PRODUCTS/SERVICES

The main types of agricultural activities in the West Rand are large-scale commercial farming, intensive commercial farming, urban agriculture, rural residential agriculture and subsistence farming. The main agricultural products being produced in the West Rand are:

- ✓ Maize
- ✓ Grain sorghum
- ✓ Dry beans
- ✓ Sunflowers
- ✓ Various vegetables
- ✓ Beef cattle
- ✓ Chickens and broilers
- ✓ Pork
- ✓ Milk

Eighty-one percent (81%) of the Agricultural products being exported from the WRDM are Vegetable Products, the most common being Ground nuts. Another major contributor towards exports within the District is cut flowers, dried flowers for bouquets, etc. Krugersdorp is the only town in the district that has an office of the Department of Agriculture. What should however be noted the close proximity of the district to 3 fresh produce markets, namely Johannesburg, Tshwane and Vereeniging.

CURRENT/PROPOSED INITIATIVES

The following list of agricultural sector initiatives in the WRDM have been identified in the Gauteng Economic Opportunity Atlas, Gauteng GDS, Gauteng Employment Growth and Development Strategy, WRDM IDP, WRDM RSDF, WRDM LED and various local municipal IDP, SDF, GDS, LED and other strategic documents, plans and strategies.

- ✓ Abattoir – Mogale City LM
- ✓ Production of crops and associated logistics (packaging, cooling, transport and distribution) – Randfontein LM
- ✓ Small-scale farming of specialised products and vegetable production – Randfontein LM
- ✓ Agri-business development (production of herbs, essential oils and vegetables) – Westonaria LM
- ✓ Livestock breeding programme – Westonaria LM
- ✓ Nursery and instant lawn project – Westonaria LM
- ✓ Hydroponics farming and poultry production in Simunye – Westonaria LM
- ✓ Sustainable farm projects to diversify the economic sector – Merafong LM

DEVELOPMENT OPPORTUNITIES

- ✓ Intensive commercial farming opportunities:
 - Labour intensive agriculture projects
 - Deciduous and berry fruit production
 - Vegetable production
 - Speciality vegetable production
 - Cut flower production
- ✓ Aquaculture development
- ✓ Small-scale commercial farming:
 - Conventional crop production: maize, green maize & dry beans
 - Low-input maize production
 - Egg production
 - Milk production
 - Broiler production
- ✓ Subsistence farming:
 - Per-urban irrigated plots for fruit & vegetable production
 - Homestead food production (i.e. cabbage, tomatoes, onion, potatoes, beans, green maize, etc.)

- Homestead egg laying units
- ✓ Other development opportunities within the agricultural sector:
 - Demonstration plots: Plots with various crops and nursery products for the community, showing production techniques and crop options supported by extension services and access to information
 - Agro-processing industries/activities: Leather tanning, flour milling, dairy product processing
 - Agro-based tourism: Tourists visiting the large commercial farms in the area, e.g. ostrich farm
 - Food supplements and bio-technology development/application
 - Food & Beverage value chains (incl. chemicals, packaging, etc.)

MINING SECTOR

This sector includes the extraction and beneficiation of minerals occurring naturally, including solids, liquids and crude petroleum and gases. It also includes underground and surface mines, quarries and the operation of oil and gas wells and all supplemental activities for dressing and beneficiating for ores and other crude materials.

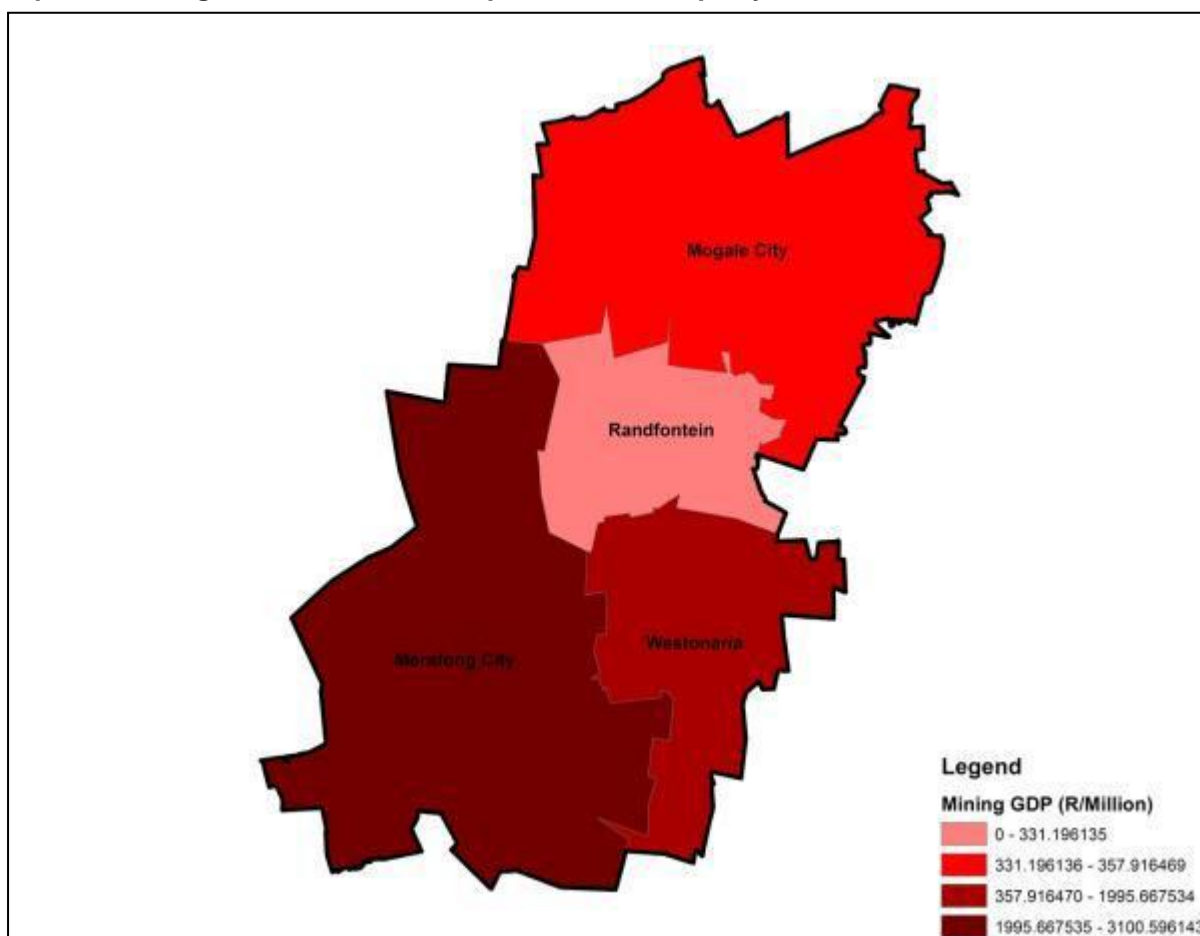
Mining is still a very important economic sector in the West Rand, both in terms of production and employment. Gold is the most important mineral mined in the WRDM, with some of the largest unmined gold reserves in South Africa. The mining sector is characterized by fluctuating prices, with consequent decreasing supply and retrenchments. Even though the mining industry in the West Rand has been in decline for the past decade, an increase in international gold prices since 2004/2005 has had positive implications for the profitability of South African gold mines.

The fact that the United States and, to a lesser extent, the rest of the world entered a period of stronger economic growth in 2003 and 2004, lead to an increased demand for commodities. This demand, together with the sustained and increasing demand by emerging economies such as China, has subsequently led to a sharp increase in commodity prices, including gold prices (Dept. of Minerals and Energy, 2006). The increase in demand and prices has continued in 2005, 2006 and 2007. The substantial increase in gold and platinum prices led to a large increase in South African sales revenue, and also had positive implications for the profitability of South African gold mines. While gold mines in South Africa were facing downscaling and closure before 2005, the outlook and prospects for the mining industry has since improved sufficiently to cause a turn-around in the profitability of the mines and an expansion of mining activities. Since January 2008, however, the national electricity crisis has caused severe disruptions in mining operations, and continued load shedding holds negative implications for the whole mining industry.

The mining industry is set to play an important role in the economy of the West Rand for many years to come. With an average life span of 26 years per mine and the current favourable outlook thanks to high international gold prices, there is still considerable potential to utilize the mining sector as a catalyst for developing other economic activities, by strengthening local backward and forward linkages.

The following map presents the mining contributions of all the local municipalities within the WRDM. The West Rand district has a comparative advantage in the mining sector with a location quotient of 1.8 and contributes approximately 20% of the West Rand GDP. The mining sector in Merafong City is the largest contributor in terms of the district GDP, followed by Westonaria LM, Mogale City LM and lastly Randfontein LM.

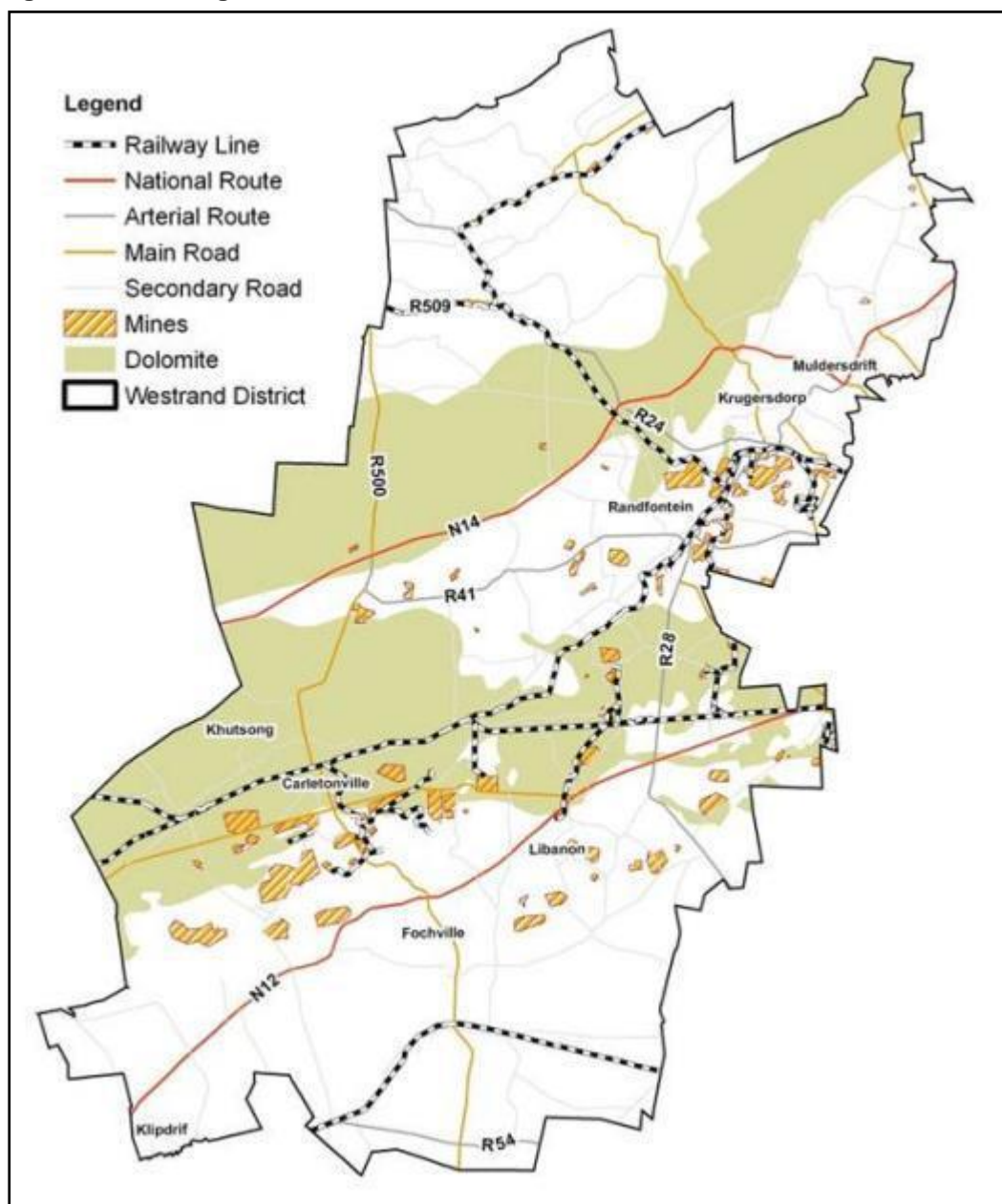
Map 4.12: Mining GDP Concentrations per Local Municipality



The district is also an important mining area with the presences of mainly gold reserves. As a result of the mining activities the District is experience negative environmental impacts particularly on the water resources in the municipality. The recent media attention on the Acid Mine Drainage has highlighted some of the issues in the area to the public.

The economy of WRDM was previously characterised and driven by mining and mineral assets. The district, in fact, developed due to the presence of an extensive gold reef. The mines currently operating with the WRDM includes Anglo Gold, Harmony Gold, Durban-Roodepoort Deep, Goldfields, JCI Limited, Placer Dome – South Deep. The following map indicates the locations of mining areas and dolomitic areas in the WRDM.

Figure 4.13: Mining and Dolomitic Areas in the WRDM



It should also be noted that, according to the State of the Environment Report 2011, only 1.7% of the West Rand area is mining area, whereas 4.8% is urban/built up area and 27% of the land cover is cultivated.

CURRENT/PROPOSED INITIATIVES

The following list of mining sector initiatives in the WRDM have been identified in the Gauteng Economic Opportunity Atlas, Gauteng GDS, Gauteng Employment Growth and Development Strategy, WRDM IDP, WRDM RSDF, WRDM LED and various local municipal IDP, SDF, GDS, LED and other strategic documents, plans and strategies.

- ✓ Re-working of mine dumps, brick works, processing and beneficiation mining produce – Mogale City LM
- ✓ Mining-based tourism – Westonaria LM

- ✓ Re-working of mine dumps, brick works, processing and beneficiation mining produce (jewellery manufacturing) – Westonaria LM
- ✓ Poultry production and bakery production in Simunye – Westonaria LM
- ✓ Manufacturing linked with mining - Merafong LM
- ✓ Relocation of mining companies from Johannesburg and Ekurhuleni to Merafong (Carletonville) – Merafong LM

DEVELOPMENT OPPORTUNITIES

New gold mining projects:

- E.g. new mines and exploration programmes
- Although decisions regarding new mining projects are solely made by mining houses, opportunities to supply materials, machinery, etc. to new mines should be fully exploited

Improving the profitability of mines:

- The main controllable factor in improving profitability is by the improvement of employee productivity, through:
 - Literacy education
 - Training of “panel miners”
 - Introducing earnings motivation schemes

Small Scale mining:

- Although small scale underground operations are not an option, some potential does exist in terms of surface operations, e.g. reworking of mining dumps, brickworks, etc.

Strengthening local backward linkages:

- Local manufacturing enterprises can benefit substantially if suppliers can negotiate more/larger contracts with the mines. This is currently hampered by an inability to meet demand in terms of quality, quantities and competitiveness, as well as unwillingness of mines to support local businesses. This could be addressed by:
 - Establishing an appropriate liaison structure/initiative
 - Local information and manufacturing exhibitions

Mining assisted small business development:

- It was indicated that SMME's in the mining industry could most efficiently be involved in the rehabilitation of mining dumps and slimes dams
- Opportunities also exist in terms of the provision of construction materials and services to the mines

Processing and beneficiation of mining produce:

- Establishment of downstream-gold activities in the area:
 - Application of gold in catalysis and other industrial uses, e.g. electronics, dentistry
 - Refinery
 - Jewellery manufacturing

Mining Centre of Excellence:

- Utilising available facilities and infrastructure to establish an International Centre of Excellence in the Gold Mining Industry:
 - Training in mining operations for trainees from across Africa and the rest of the world

- Innovation in mining techniques and quality control
- Investment promotion in the mining value chain
- Environmental monitoring

MANUFACTURING SECTOR

This sector is broadly defined as the physical or chemical transformation of materials or compounds into new products and can be classified into 10 sub-groups of which the most relevant are:

- ✓ Fuel, petroleum, chemical and rubber products
- ✓ Other non-metallic mineral products, e.g. glass
- ✓ Metal products, machinery and household appliances
- ✓ Electrical machinery and apparatus

In general, the industrial base in the WRDM is relatively small, although it has exhibited steady growth since 2003. In 2005, the WRDM only accounted for 3.4% of the total manufacturing output in the Gauteng province, and 4.8% of formal manufacturing employment in Gauteng.

The largest portion of manufacturing output and employment is situated in Mogale City and Randfontein, as well as a relatively large number of employees per industry and a large gross output in total. Industries in Westonaria, on the other hand, are medium- and small-sized with a lower average number of workers employed.

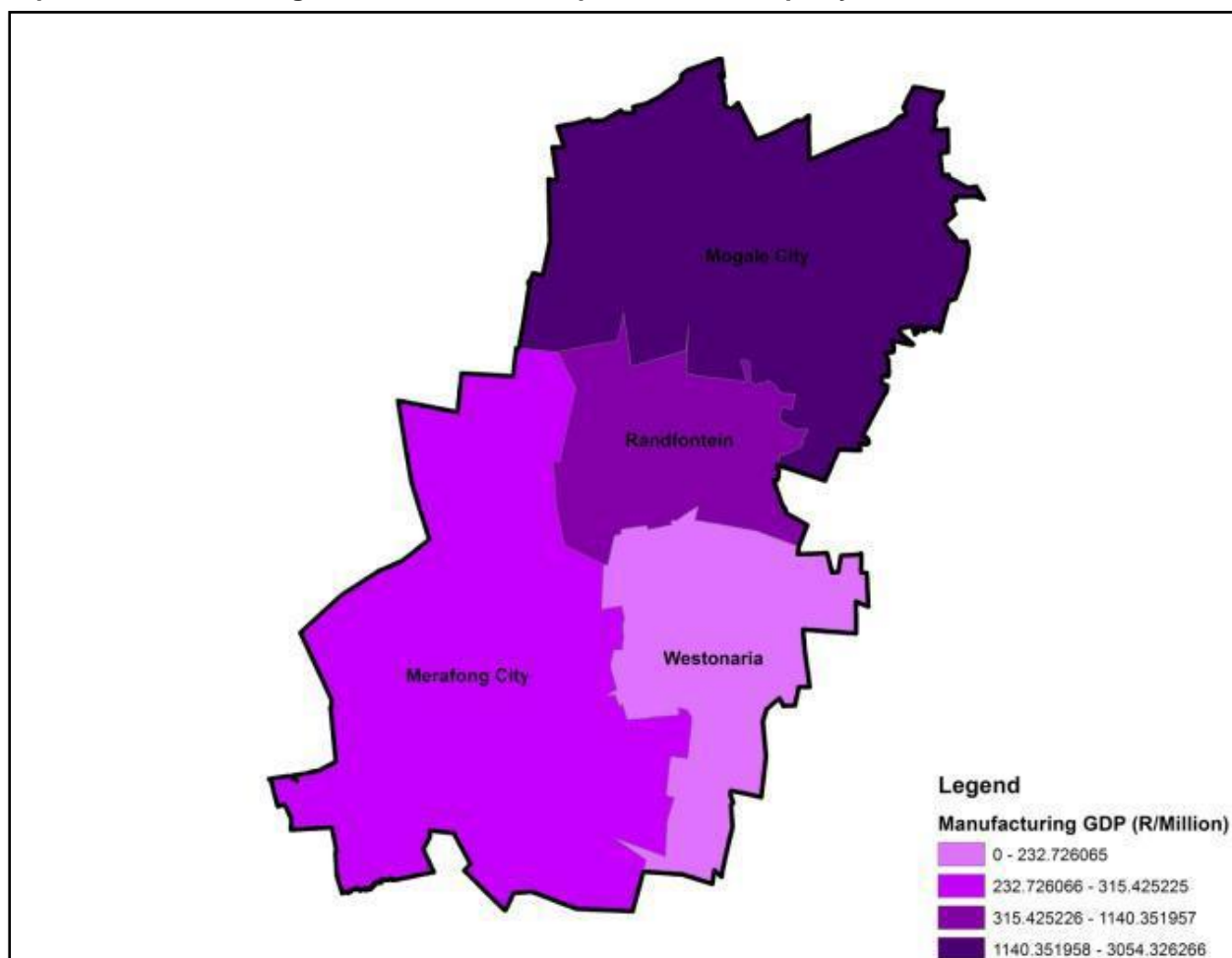
Gauteng is the powerhouse of manufacturing in South Africa, contributing 37% of the total Gross Value Add on manufacturing. Manufacturing contributed 20% to the GDP of the province.

Ekurhuleni and the City of Johannesburg's share of the manufacturing contribution to the GDP are estimated at 30% and 40% respectively, with Tshwane contributing 18%. The three municipalities have a combined contribution of 12% to the Gross Domestic Product. It is however evident from the figure that the municipalities within the West Rand District are not major contributors with regards to Manufacturing.

The District does however have the potential to stimulate and promote manufacturing activities and is perfectly located in relation to the City of Johannesburg and the City of Tshwane. Manufacturing has been identified by the Gauteng Economic Atlas as a development opportunity in all four local municipalities.

The following map presents the manufacturing contributions of all the local municipalities within the WRDM. It is evident from the figure that Mogale City Local Municipality's manufacturing sector contributes the most towards the District's Manufacturing GDP, followed by Randfontein LM, Merafong LM and Westonaria LM.

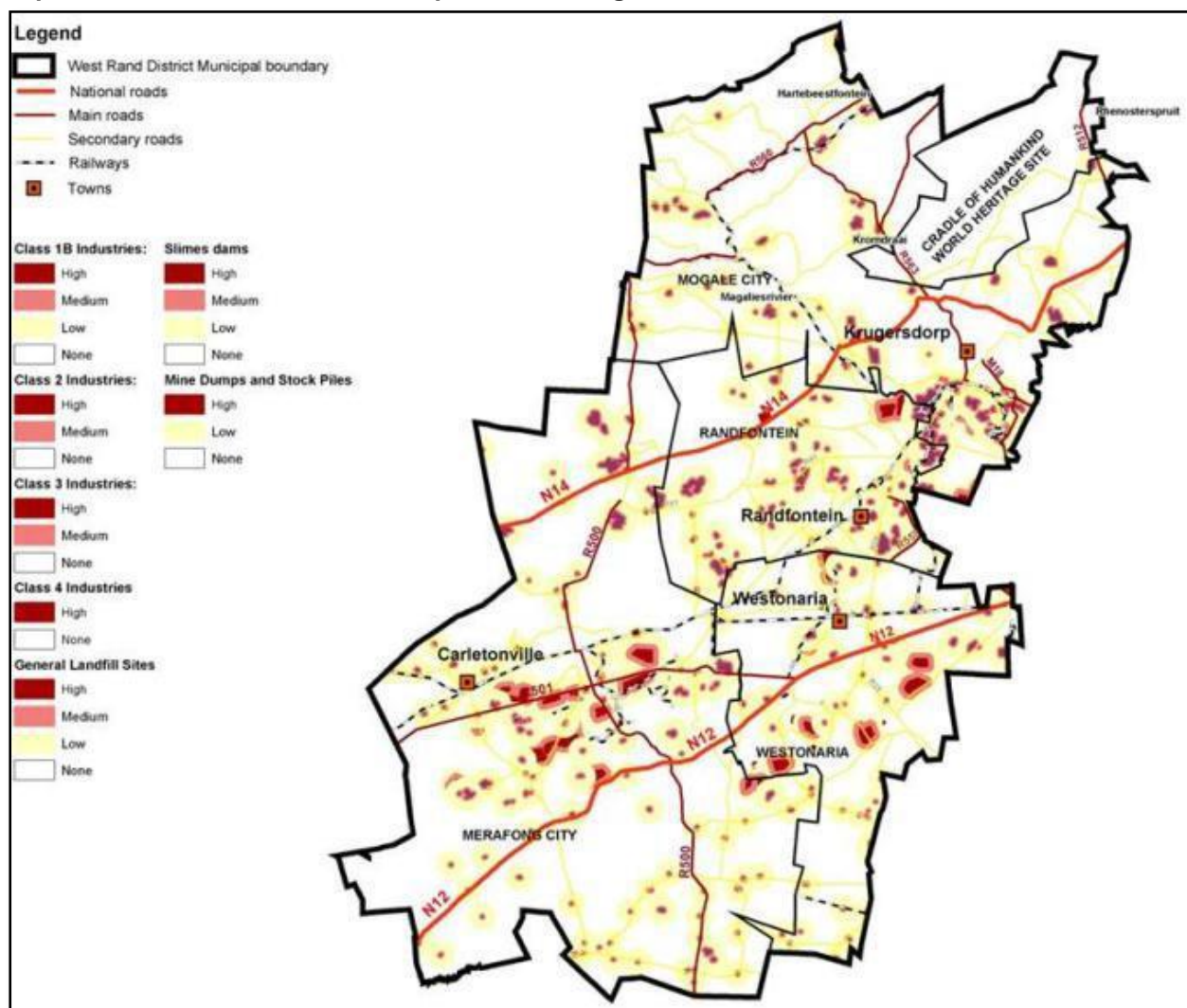
Map 4.14: Manufacturing GDP Concentrations per Local Municipality



Although the WRDM's past contribution to provincial manufacturing has not been as significant as mining, the District's role in this sector seems to be strengthening.

In spite of an upward trend in rental prices, the average rental prices for industrial areas in the West Rand are below the average asking rate in the other main economic centers in the country, making it a potentially favourable location for new industrial development / SMME development and support. The following map presents the importance ratings of the Industrial Buffer Zones within the West Rand District Municipality

Map 4.15: Industrial Buffer Zones Importance Ratings



MAIN PRODUCTS/SERVICES

The leading manufacturing industries in the WRDM include:

- ✓ Food products
- ✓ Textiles
- ✓ Non-metallic mineral products
- ✓ Metal products

Machinery

- ✓ Motor vehicle accessories
- ✓ Plastic products

The main industrial centres in West Rand are dominated by the production of machinery and metal products, which is a result of the influence of the mining sector in the area. The main industrial areas that have been identified are:

- ✓ Chamdor
- ✓ Delmas
- ✓ Aureus
- ✓ Baltonia

- ✓ Delporton
- ✓ Factoria

CURRENT/PROPOSED INITIATIVES

The following list of manufacturing sector initiatives in the WRDM have been identified in the Gauteng Economic Opportunity Atlas, Gauteng GDS, Gauteng Employment Growth and Development Strategy, WRDM IDP, WRDM RSDF, WRDM LED and various local municipal IDP, SDF, GDS, LED and other strategic documents, plans and strategies.

- ✓ Value-added high-tech manufacturing – Mogale City LM
- ✓ Agro-processing: Production, input, logistics and transport – Mogale City LM
- ✓ Abattoir – Mogale City LM
- ✓ Food cluster (with focus on processing, packaging and distribution of agricultural products) – Mogale City LM
- ✓ Production of crops and associated logistics (packaging, cooling, transport and distribution) – Randfontein LM
- ✓ Meat and food processing cluster – Randfontein LM
- ✓ Manufacturing of chicken feed – Randfontein LM
- ✓ Proposed Industrial Strategy – Randfontein LM
- ✓ Ostrich products processing, organic food supplements, biomedical products, chemical waste processing and refinement, foundries – Westonaria LM
- ✓ Westonaria plastic recycling project – Westonaria LM
- ✓ Manufacturing linked with mining - Merafong LM
- ✓ Manufacturing hubs for jewellery, industrial equipment, dental accessories, charcoal, crushed stones and drilling equipment (linked to and complimentary to the mining industry) - Merafong LM
- ✓ Proposed industrial park close to the N12 – Merafong LM

DEVELOPMENT OPPORTUNITIES

- ✓ Industrial cluster development:
 - Manufacturing development can be promoted through the development of industrial clusters around growth sectors that appear to have a (potential) comparative advantage, e.g. industries linked to the mining sector, textiles.
- ✓ Manufacturing opportunities in niche markets
 - Downstream processing of ostrich products
 - Organic food supplements and bio-medical products
 - SMME manufacturing, incl. clothing, upholstery, arts and crafts, etc.
- ✓ Manufacturing activities using local produce as inputs
 - Mining product beneficiation, e.g. jewellery manufacturing
 - Agro-industrial processing, e.g. Dairy processing, grain milling
- ✓ Supportive and service industries linked to the mining sector:
 - These industries should be targeted for growth, since more/larger contracts for the delivery of services/inputs to the mines will improve backward linkages
- ✓ Promotion of further investment in currently successful manufacturing activities:
 - E.g. Aranda Textiles, metal products – Manufacturing firms that are currently successful or have a strong presence in the West Rand could increase its positive impact on employment in the area if its operations were expanded through further investment. Targeted investment incentives should be investigated.
- ✓ Chemical Waste Sector
 - The current environmental problems experienced in the West Rand due to chemical/toxic seepage, points to an urgent gap in terms of waste management

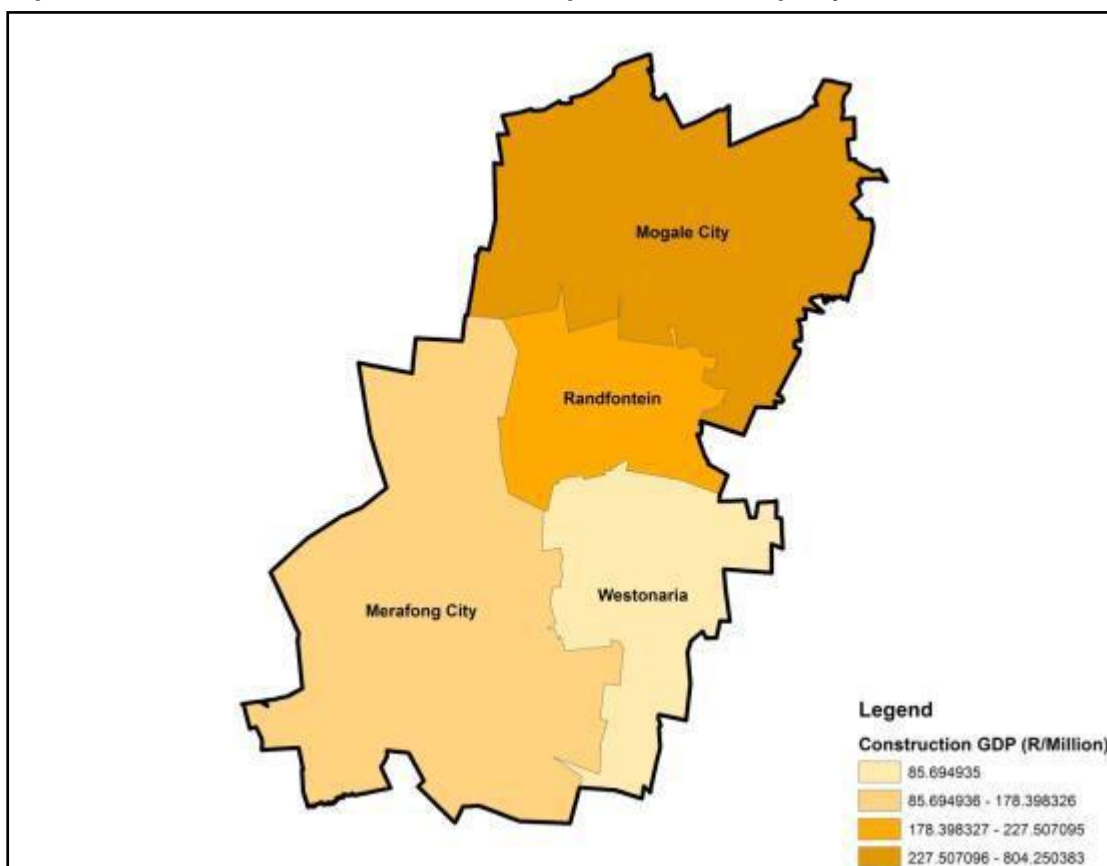
agencies/companies. The West Rand should investigate opportunities in the waste disposal sector, which includes the safe and appropriate disposal of waste, as well as the utilization/recycling of waste, e.g. chemical waste processing and refinement.

UTILITIES AND CONSTRUCTION SECTOR

The **utilities** sector includes the supply of electricity, gas and hot water, the production, collection and distribution of electricity, the manufacture of gas and distribution of gaseous fuels through mains, supply of steam and hot water, and the collection, purification and distribution of water. The **construction** sector includes the site preparation, building of complete constructions or parts thereof, civil engineering, building installation, building completion and the renting of construction or demolition equipment with operators.

The performance of this sector is essentially a derived demand and is therefore dependent on economic growth in general. Although production in the utilities sector has shown a declining trend over the past decade, the construction sector has exhibited steady growth. Employment has increased in both sectors since 2004. Currently, huge backlogs still exist in the provision of basic services, which is a problem endemic to areas with a large rural component. Consequently, the majority of projects currently being implemented within this sector comprise IDP projects to address these backlogs. A recent development that will affect this sector negatively is the national electricity crisis. Frequent and disruptive power cuts and load shedding will not only affect production in this sector, but will have negative spin-off effects throughout the entire economy.

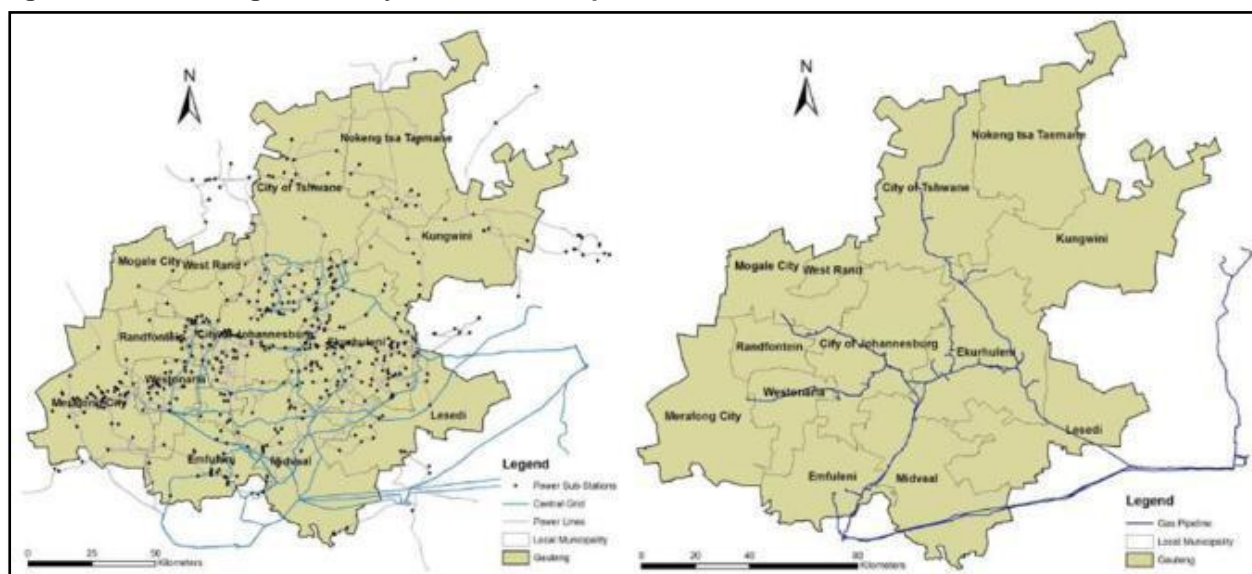
Map 4.16: Construction GDP Concentrations per Local Municipality



The map above presents the GDP contributions of the Construction sector of all the local municipalities within the WRDM. It is clear from the figure that Mogale City LM contributes the most in terms of Manufacturing GDP, followed by Randfontein LM, Merafong City LM and lastly Westonaria LM

The map below presents the electricity grid and gas pipeline within the municipalities of the Gauteng Province, as identified and outlined in the Gauteng Opportunities Analysis. From the figure it is evident that the West Rand is well serviced in terms of electricity substations and is connected to the gas pipeline.

Figure 4.17: Gauteng Electricity Grid and Oil Pipeline



The electricity grid is an interconnected network for delivering electricity from supplier (ESKOM) to consumers via local municipalities. Eskom's mandate is to provide electricity to Gauteng as well as other provinces within South Africa. Its core business function is electricity generation, transmission, energy trading and distribution. Gauteng is served by base load stations most of which are located within an adjacent Mpumalanga province. Gauteng, as an economic hub is responsible for one third of SA energy consumption. The province enjoys excellent solar radiation at an average of 6KWH/M²/day throughout the year. Thus it provides an opportunity for alternative energy a phenomenon which reduces costs and saves the environment.

Gas pipelines are another mode of transporting. Pipeline gas is a growing source of energy particularly in commerce and industry. It is a convenient, reliable and environmentally friendly energy service which is cost effective and ideally suited to a wide range of applications such as heat treatment, forging, melting, casting, paint drying, galvanising, baking and steam generation. South Africa produced 930 000 tons of natural gas and 104 860 tons of associated condensate in 2003. South African gas infrastructure stretches from Sasolburg in the northern Free State through Emfuleni, City of Johannesburg and Ekurhuleni and from Secunda to Witwatersrand.

The Construction Industry in Gauteng is still struggling to gain momentum after the recession of 2008/2009. Construction in Gauteng declined by 0.04% between December 2010 and January 2011, but was still 10% down from January 2010. The Construction sector will recover more slowly than the rest of the economy, because it takes a long time for a business person or homeowner to regain enough confidence in the economy after a recession to start building again, and then even longer before the construction is approved. According to StatsSA approximately 25 million recorded building plans were passed by larger municipalities within Gauteng in 2011, thus recording a negative annual growth rate of -11% since 2007. StatsSA also recorded that approximately 18 million buildings were reported as being completed in Gauteng for 2011, recording a negative annual growth of -5% since 2007.

MAIN PRODUCTS/SERVICES

Electricity Distribution:

- ✓ Due to the expansion of the economic activities that sustain the district municipality, the areas that are in greater need of electricity supply and maintenance are mainly the urban areas of Randfontein and Mogale City. This is particularly due to the population densities found in these areas coupled with the various land uses that range from residential to commercial and industrial. These are all land uses that require a greater supply of electricity compared to those agricultural areas found mainly in the south to north western parts of the municipality.

Potable Water Supply:

- ✓ The main water supplier in the municipality is Rand Water; the water is pumped from the Vaal River into local reservoirs. The local councils own and manage the local distribution of infrastructure. Water supply in WRDM can be considered to be fairly good, particularly in the urban areas. According to the 2007 Community Survey data, most households, 81.1% receive their water either from piped water sources to dwelling or from piped water sources to the yard.

Construction services:

- ✓ The West Rand District has a large construction industry, with numerous contractors located within the West Rand District Municipality. Services offered by contractors include building plan compilation, construction, building supplies, rubble removal, Project managers, civil engineers, land surveyors, plumbers, electricians, etc.

CURRENT/PROPOSED INITIATIVES

The following list of utilities and construction sector initiatives in the WRDM have been identified in the Gauteng Economic Opportunity Atlas, Gauteng GDS, Gauteng Employment Growth and Development Strategy, WRDM IDP, WRDM RSDF, WRDM LED, and various local municipal IDP, SDF, GDS, LED and other strategic plans and strategies.

- ✓ Proposed N17 highway - Mogale City LM
- ✓ Urban renewal in Magaliesburg – Mogale City LM
- ✓ Construction and upgrading of roads and storm water networks in Magaliesburg – Mogale City LM
- ✓ Paving of gravel roads in Hekpoort – Mogale City LM
- ✓ Beautification and parks development in Magaliesburg - Mogale City LM
- ✓ Proposed CBD revitalisation and urban renewal strategy – Randfontein LM
- ✓ Upgrading of Greenhills sport complex – Randfontein LM
- ✓ Future district nodes at the R28/R559 (south of Aureus) and R28/R41 (south east of the CBD) intersections – Randfontein LM
- ✓ CBD upgrading to strengthen investment in the area – Westonaria LM
- ✓ Planned Rapid Bus Transport (BRT) node from Lenasia – Westonaria LM
- ✓ Donaldson Dam revitalisation – Westonaria LM
- ✓ Long term goal of integrating Welverdiend, Khutsong and Carletonville into a single multi-nodal city – Merafong LM
- ✓ Infill development to the west of Fochville between Fochville and Kokosi – Merafong LM
- ✓ Infill development to the west of Fochville between Fochville and Kokosi – Merafong LM
- ✓ Carletonville-Khutsong-Welverdiend integrated multi-nodal city – Merafong LM
- ✓ Current housing projects in Khutsong – Merafong LM
- ✓ Khutsong resettlement programme – Merafong LM
- ✓ Proposed residential development (extension of Welverdiend) towards the south – Merafong LM
- ✓ Settlement relocation between Welverdiend and Carletonville – Merafong LM

DEVELOPMENT OPPORTUNITIES

Growth in the utility and construction sectors can occur as a result of strong linkages with other sectors in the economy. An expansion in any industry, such as manufacturing, retail, offices, residential, etc. will increase water and electricity consumption as well as construction activities. Encouraging investment in other economic sectors will subsequently also have a positive effect on the utilities and construction sectors.

The construction sector will benefit from government reconstruction and development programmes, township and urban renewal projects and public procurement policies.

Numerous opportunities for small, medium and micro construction enterprises exist within this sector, and in any LED related construction projects, the utilisation of SMME's should be maximised. Due to the fact that there are several urban areas in need of renewal and regeneration, this provides an opportunity for outsourcing and procurement with specific focus on black economic empowerment.

General development constraints within the utility sector of the WRDM include the lack of capacity and funds within the local municipalities to supply basic services to all, the huge backlog to overcome and time constraints.

The current national electricity crisis will also be a severe development constraint for several years to come. This, however, presents another opportunity in terms of the investigation and development of alternative sources of energy and energy-saving techniques in industrial and mining activities.

The following projects, both current and planned, present opportunities in the construction and utilities sectors for local economic development and black economic empowerment in the West Rand:

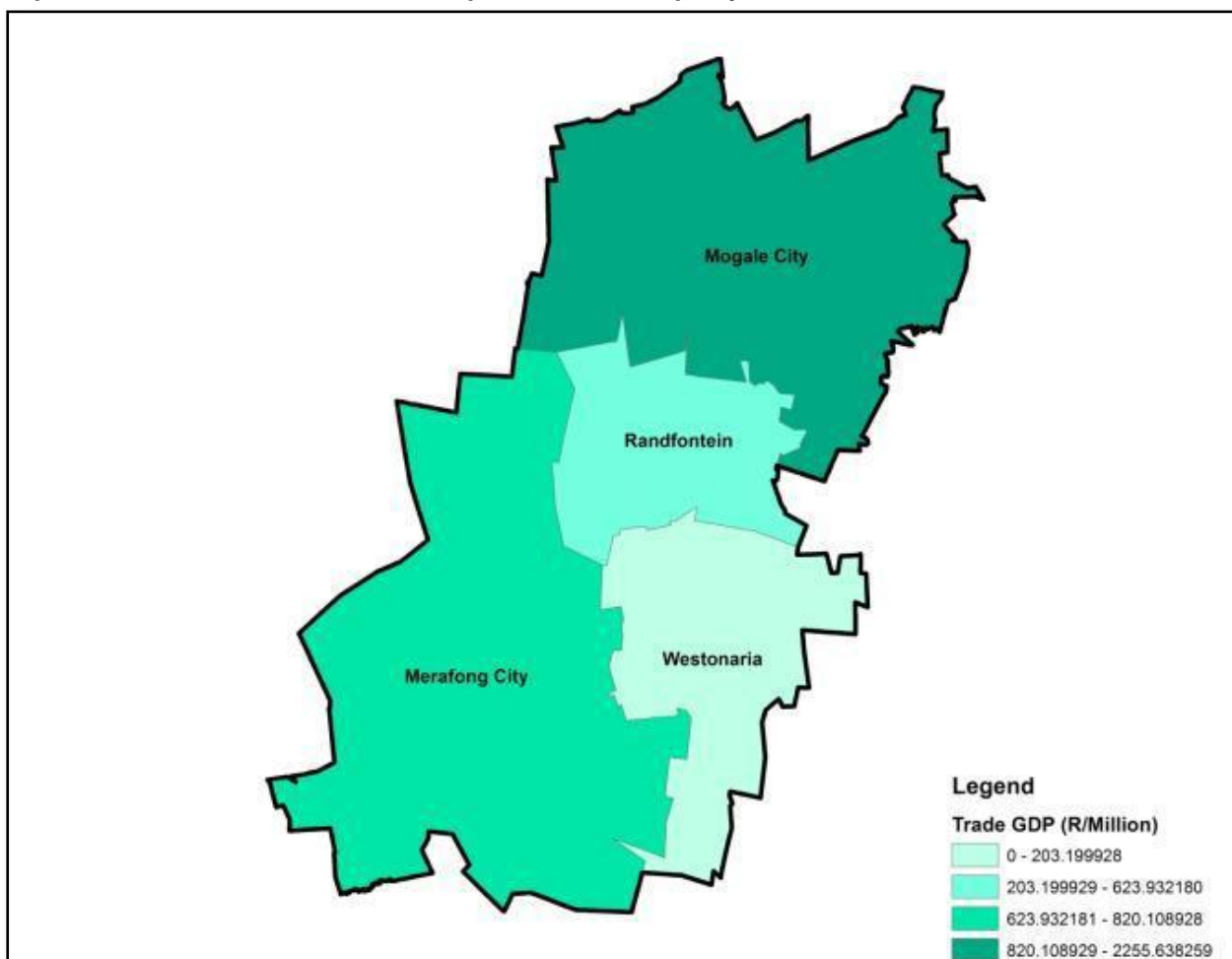
- ✓ Development of Donaldson Dam:
- ✓ Creation of a recreational resort
- ✓ Development of Riebeeck Lake
- ✓ Construction of a waterfront and convention centre with retail facilities
- ✓ Katlego cultural facility
- ✓ Construction of a cultural facility to showcase products and cuisine representative of Tswana ethnic group and other indigenous groups resident in the vicinity of the Cradle of Humankind World Heritage Site
- ✓ CBD Regeneration and Industrial Development Districts:
- ✓ Inner City rejuvenation in Mogale City and Randfontein, as well as Special Development Zones in the Chamdor and Aureus industrial areas
- ✓ Township and Urban Renewal Projects
- ✓ Urban renewal and development of Kagiso/Leratong and Bekkersdal

WHOLESALE AND RETAIL TRADE SECTOR

The wholesale and retail trade sector is relatively well developed, but still a substantial leakage of purchasing power is experienced out of the WRDM. This is a result of gaps in the regional retail hierarchy in the West Rand. Retail development is a derived demand, influenced by, e.g. disposable income levels in the area. The formal retail market is concentrated in the CBD's of major towns, such as Mogale City, Westonaria and Randfontein. Smaller local shopping centres cater for day-to-day needs in local neighbourhoods.

Map 4.18 presents the retail contributions of all the local municipalities within the WRDM. It is evident from the figure that Mogale City Local Municipality is the highest contributor towards the economy of the West Rand in terms of retail, followed by Merafong City Local Municipality and Randfontein Local Municipality. Westonaria Local Municipality contributes the least in terms of retail.

Map 4.18: Retail GDP Concentrations per Local Municipality



Gauteng is a Retail powerhouse contributing a staggering 40% of the total retail sector contribution to the Gross Value Add distribution of South Africa. The City of Johannesburg's contribution to the retail sector is estimated at 47%, followed by Ekurhuleni and City of Tshwane each contributing 22%.

Mogale City (West Rand) and Emfuleni (Sedibeng) local municipalities accounts largely to the 2% that their respective districts contribute. Mogale City Local Municipality contributes 58% towards the District's Wholesale and Retail GVA, followed by Merafong City Local Municipality (21%), Randfontein Local Municipality (16%) and Westonaria Local Municipality (5%).

CURRENT/PROPOSED INITIATIVES

The following list of wholesale and retail trade sector initiatives in the WRDM have been identified in the Gauteng Economic Opportunity Atlas, Gauteng GDS, Gauteng Employment Growth and Development Strategy, WRDM IDP, WRDM RSDF, WRDM LED and various local municipal IDP, SDF, GDS, LED and other strategic plans and strategies.

- ✓ Future Lakeview Mall development – Randfontein LM
- ✓ Upgrading of Westonaria Shopping Centre (CBD) – Westonaria LM
- ✓ Future community shopping centre development – Merafong LM
- ✓ Development of a commercial cluster in Carletonville to group together numerous businesses with functional relationships – Merafong LM
- ✓ New community shopping centre proposed in Fochville – Merafong LM
- ✓ Development of new community shopping centre next to Khutsong South – Merafong LM
- ✓ Proposed shopping centre development – Merafong LM
- ✓ Proposed agri-commercial park – Merafong LM

DEVELOPMENT OPPORTUNITIES

- ✓ Gaps in regional retail hierarchy
 - Provide shopping facilities to fill the gaps experienced
- ✓ Mining and agriculture supplies and services
 - All services and supplies needed by the mining and agricultural sector
- ✓ Fresh produce market
 - A local fresh produce market would act as a local off-set point for the product of farmers, which could lessen transportation costs
- ✓ Development of commercial clusters

TRANSPORT AND COMMUNICATIONS SECTOR

Transport and communications as an economic sector refers to activities concerned with land transport, railway transport, water transport, transport via pipelines, air transport, activities of travel agencies, post and telecommunications, courier activities, as well as storage and warehousing activities.

In general, the road conditions and transport systems in the West Rand are in a fairly poor condition, mainly due to a lack of maintenance funds and proper storm water management. This has negative implications for not only the safety and cost effectiveness with which freight and passengers are transported within the WRDM, but also for the regional accessibility of the West Rand.

The main modes of transport operating within the WRDM are trains; buses; and mini-bus taxi's. An airport is available in Lanseria, just outside the borders of the WRDM, which accommodates both passenger and freight transport.

Despite the relatively poor condition of transport infrastructure in the West Rand, The Transport and Communications sector has experienced strong growth over the past decade. One aspect influencing this growth is the increasing dependence of businesses on cost effective transport and logistical services, in order to increase competitiveness in the trade of products and supplies across the regional, district and provincial borders.

Development within this sector is also supported by the importance of communication in the new global economy. The introduction of new technology to the area, i.e. logistics, ICT, marketing channels, networking platforms, call centres, etc. can all contribute to the development of various clusters and linkages within the local economy.

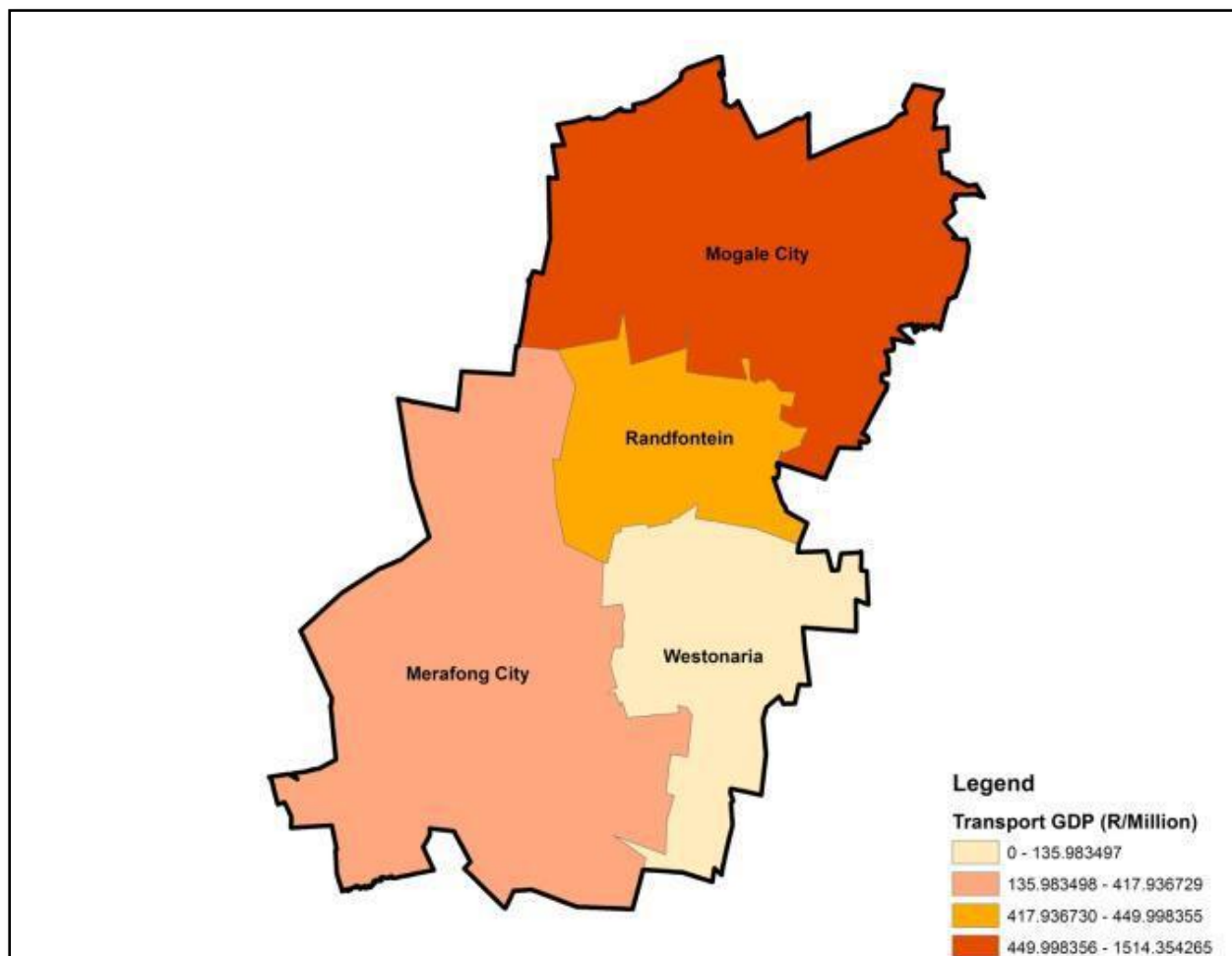
According to Quantec Research, Transport and Communication contributes 8% towards the District's Gross Value Add, fifty-seven percent (57%) being contributed by the Communications sub-sector and the remainder (43%) by the Transport and Storage sub-sector. Mogale City Local Municipality contributes 60% towards the District's Transport and

Communication GVA, followed by Randfontein LM (18%), Merafong City LM (17%) and Westonaria LM (5%).

Map 4.19 presents the Transport GDP contributions of the Local Municipalities within the West Rand District Municipality. From the map it is evident that Mogale City Local Municipality contributes the most towards the District's Transport sector GDP.

Mogale City Local Municipality's contribution is followed by the contributions from Randfontein Local Municipality and Merafong City Local Municipality. Westonaria Local Municipality contributes the least.

Map 4.19: Transport GDP Concentrations per Local Municipality



Movement linkages are essential as they increase a region's connectivity and access to economic and learning opportunities. The district is well serviced in terms of east-west regional linkages and these directly link the WRDM to the northern and central Gauteng economic powerhouses to its east and the agricultural and mining zones of the North West Province to its west. The economic and developmental benefits that these linkages have added to the district itself so far are still relatively minimal.

On the other hand the district has not at all been able to create and sustain strong north-south linkages that centralise it between the Free State Province and the eastern parts of the North West Province such as the Bojanala Local Municipality.

The district is served by National, Provincial and Local Roads. The N12 and N14 are the two National Roads that cross the district in a west to north eastern direction. These routes generally provide good regional access between the WRDM and Johannesburg to the east, Pretoria to the north and the North West Province to the north-west.

CURRENT/PROPOSED INITIATIVES

The following list of transport and communications sector initiatives in the WRDM have been identified in the Gauteng Economic Opportunity Atlas, Gauteng GDS, Gauteng Employment Growth and Development Strategy, WRDM Integrated Transport Plan, WRDM IDP, WRDM RSDF, WRDM LED, various local municipal IDP, SDF, GDS, LED, Integrated Transport Plans and other strategic documents, plans and strategies.

- ✓ Planned Rapid Bus Transport (BRT) node from Lenasia – Westonaria LM
- ✓ Future community shopping centre development – Merafong LM
- ✓ Development of multi modal transport hub (MMTH) – Merafong LM
- ✓ Construction of commuter railway station (Khutsong South) – Merafong LM

DEVELOPMENT OPPORTUNITIES

- ✓ Utilise existing infrastructure optimally through proper routine maintenance and rehabilitation routines
 - This could also stimulate the creation of job opportunities, e.g. public works programme
- ✓ Improvement of existing infrastructure with the aim of increasing accessibility to the area
- ✓ Transportation corridor development with surrounding areas and economic of importance
 - This should also entail attracting investment and creating business opportunities, especially along the transportation corridor(s)
- ✓ Improving the safety and efficiency of rail commuter services, in order to utilise the system to full capacity
- ✓ Introducing new communication technology, i.e. logistics, ICT, networking platforms, call centres, etc.
- ✓ Possibility of a Logistics/Distribution Centre in the West Rand should be investigated

SERVICES SECTOR

The **finance and business services** sector includes *inter alia* financial intermediation; insurance and pension funding; real estate activities; renting or transport equipment; computer and related activities; research and development; legal; accounting; bookkeeping and auditing activities; architectural, engineering and other technical activities; and business activities not classified elsewhere.

The **community and personal services** sector includes public administration and defence activities, activities of government, government departments and agencies; education, public and private; health and social work; sewage and refuse disposal, sanitation and similar activities; activities of membership organisations; recreational, cultural and sporting activities; washing and dry-cleaning of textiles and fur products, hairdressing and other beauty treatments, funeral and related activities.

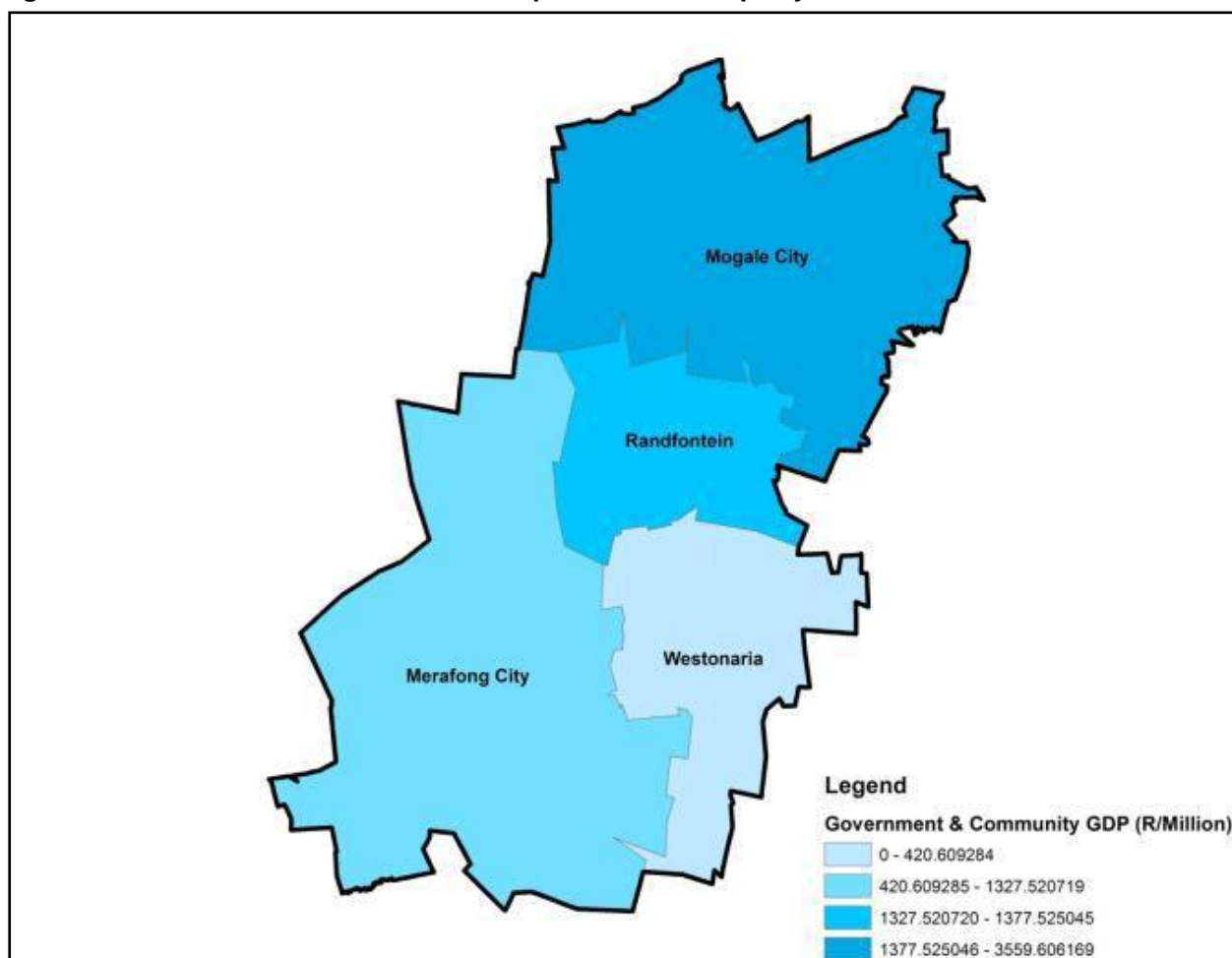
The services sector has experienced strong and steady growth rates over the last decade. Activities in this sector can mainly be found in the established urban nodes of the West Rand, where a large concentration of people and economic activities can be found.

In terms community and personal services, the West Rand has long been neglected in the provision of higher order social facilities, mainly due to low population densities in the rural areas which make the provision of these facilities very difficult.

Although there are some well-established sporting facilities in the larger urban areas, as well as some recreational facilities, there is still a huge requirement for such facilities in disadvantaged areas, i.e. sport-orientated facilities, libraries, recreational facilities.

Map 4.20 presents the GDP contributions of the services sector of all the local municipalities within the West Rand District Municipality. It is evident that Mogale City Local Municipality contributes the most towards the District's services sector GDP, followed by Randfontein Local Municipality, Merafong City Local Municipality, and lastly Westonaria Local Municipality.

Figure 4.20: Services GDP Concentrations per Local Municipality



CURRENT/PROPOSED INITIATIVES

The following list of services sector initiatives in the WRDM have been identified in the Gauteng Economic Opportunity Atlas, Gauteng GDS, Gauteng Employment Growth and Development Strategy, WRDM IDP, WRDM RSDF, WRDM LED and various local municipal IDP, SDF, GDS, LED and other strategic documents, plans and strategies.

- ✓ Agri-business development (production of herbs, essential oils and vegetables) – Westonaria LM

- ✓ Relocation of mining companies from Johannesburg and Ekurhuleni to Merafong (Carletonville) – Merafong LM

DEVELOPMENT OPPORTUNITIES

- ✓ Provision of services to the mines:
 - Although development potential within this sector primarily depends on the supply and demand within the area, there is still huge potential to utilize the capacity of the mines for the use of the wider community. This relates specifically to higher order social facilities.
- ✓ Multi-Purpose Community Centre
 - An opportunity has also been identified for the establishment of a Multi-Purpose Community Centre (MPCC) on Portion 26 of Kromdraai commonage. This project will bring essential services such as a clinic and Emergency Management to the historically disadvantaged communities in the area.
- ✓ Call Centres
 - Further potential also exists in the business services sector for the development of a Call Centre, since Business Process outsourcing is one of the fastest growing markets in South Africa, especially in Gauteng. Foreign direct investment has also increased in the call centre industry.

TOURISM SECTOR

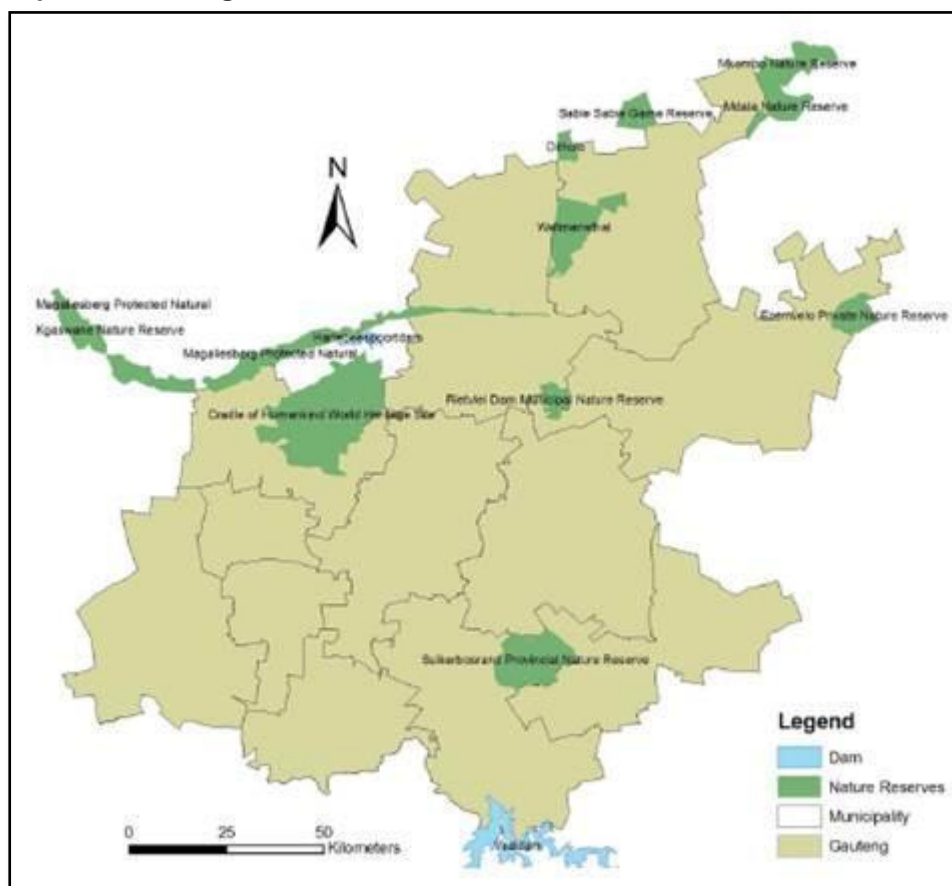
Tourism is not an economic sector in its own, but forms part of other sectors especially the trade, transport and finance sectors. However, due to its increasing importance as an income and employment creator in South Africa, it is believed that this sector should be discussed separately from the other sectors.

Defining the tourism sector is therefore difficult as it includes many different sources of goods and services. The World Trade Organisation's definition of tourism states that "tourism comprises the activities of persons travelling to, and staying in places outside their usual environment, for not more than one consecutive year, for leisure, business and other purposes. The usual environment of a person consists of a certain area around his/her place of residence, plus all other places he/she frequently visits e.g. the workplace".

Map 4.21 presents the nature reserves within the Gauteng Province, as identified and outlined in the Gauteng Opportunities Analysis.

It is clear from the figure that the most well-known nature reserves/conserved areas in the West Rand are the Cradle of Human kind and the Magaliesberg Protected Natural Area.

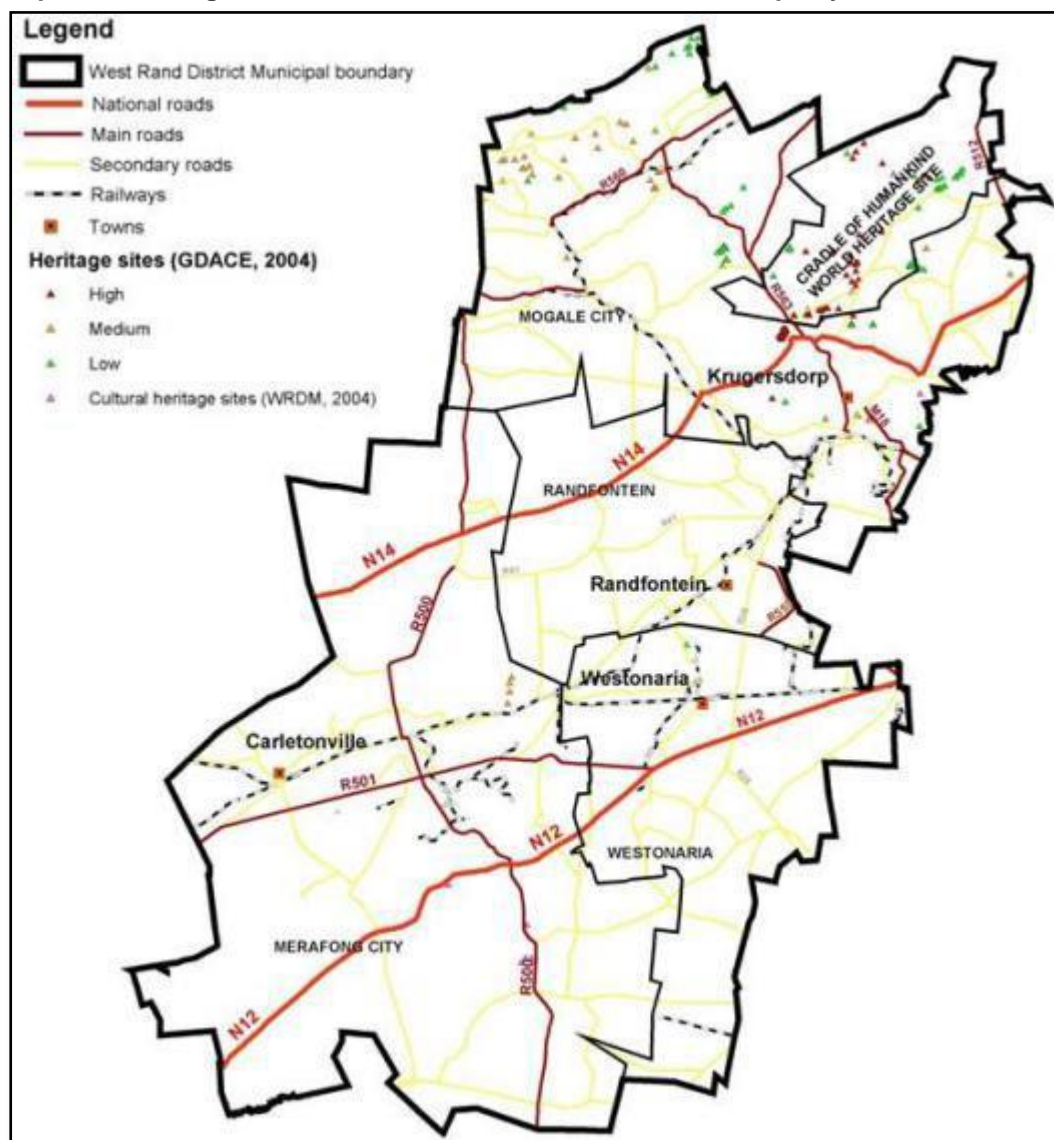
Map 4.21: Gauteng Nature Reserves



In the past, the West Rand was not seen as a prime tourist attraction in South Africa and the Western Gauteng region has received only a small portion of the yearly number of tourist trips to Gauteng. Apart from a few attractions, the WRDM could not compete with areas such as the Kruger National Park, Mpumalanga or destinations such as Pilanesberg/Sun City. However, this situation could change significantly with the development of the Cradle of Humankind as a major tourism destination.

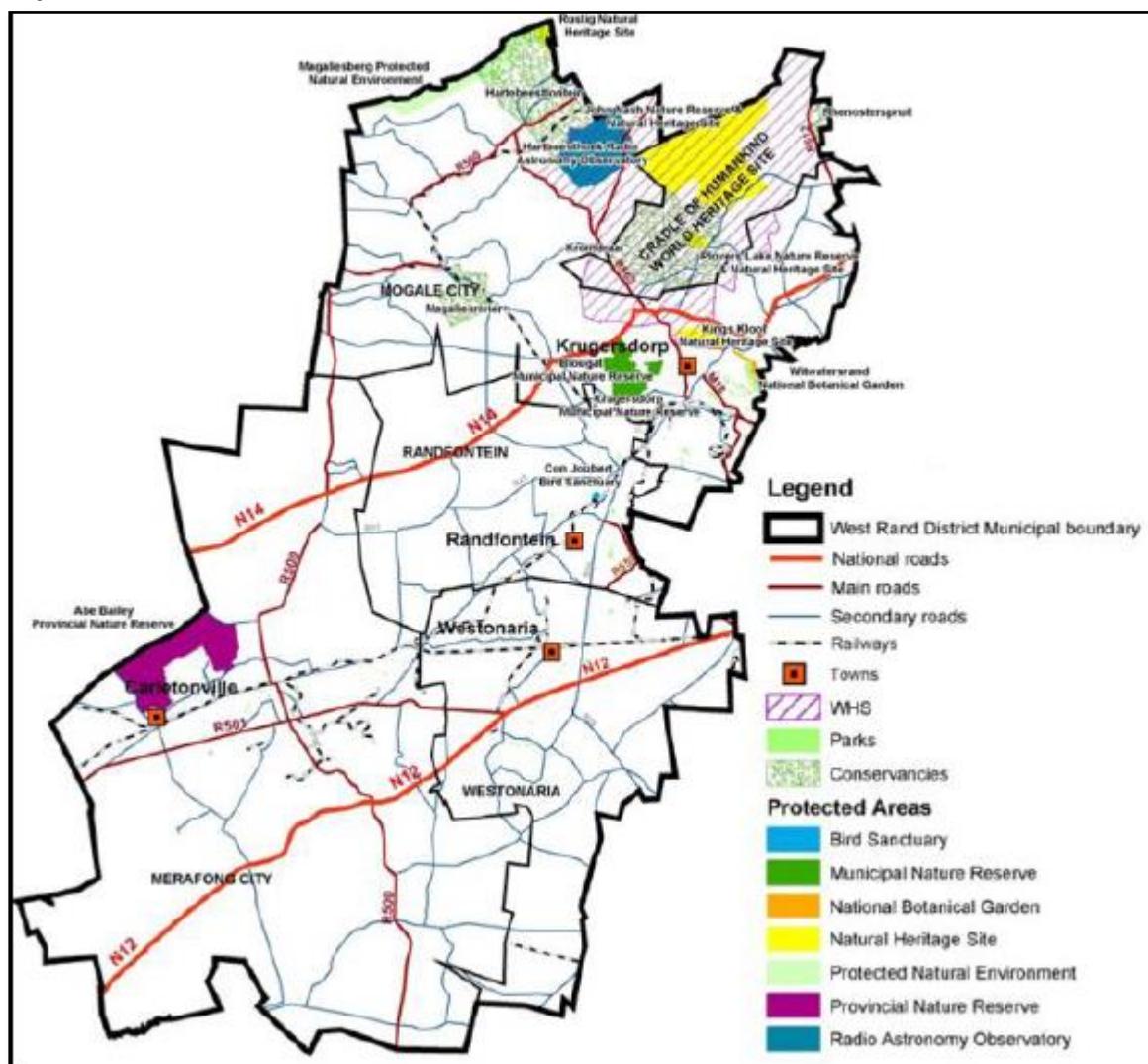
Map 4.22 presents the heritage sites within the West Rand District Municipality as identified by the WRDM Environmental Management Framework, 2006. From the map it is evident that the heritage sites with high importance is mostly located within the Cradle of Humankind World Heritage Site area. The northern parts of Mogale City Local Municipality have various medium and low importance heritage sites, and Merafong City Local Municipality has a small number of medium importance heritage sites.

Map 4.22: Heritage Sites within the West Rand District Municipality



Map 4.23 presents the protected areas and conservancies as identified through the West Rand District Municipalities' Environmental Management Framework, 2006. From the map it is evident that the West Rand is host to various tourist attractions such as a Bird Sanctuary, Nature Reserves, Heritage Sites, and Radio Astronomy Observatory, etc.

Map 4.23: West Rand Protected Areas and Conservancies



The Cradle of Humankind is an area in Western Gauteng that contains a number of hominoid fossil sites that provide information of international significance on the origins of mankind. In 1999 it was declared a World Heritage Site in terms of the World Heritage Convention established by the United Nations Educational, Scientific, and Cultural Organisation (UNESCO). With the Cradle of Humankind World Heritage Site (COHWHS) being identified as one of Gauteng Growth and Development Agency's (GGDA) projects (projects designed to maximise job creation and stimulate economic development), an extensive master planning process ensued.

The COHWHS has the potential to become an icon tourism attraction not only for Gauteng, but also for South Africa as a whole. The fact that the largest part of the COHWHS falls within the boundaries of the West Rand District Municipality bodes well for tourism development in the West Rand. The West Rand must capitalise on the consequential opportunities for tourism development that will be created, which will allow the West Rand to increase its share of international and domestic tourism arrivals and capitalise on the resultant opportunity for economic growth.

CURRENT/PROPOSED INITIATIVES

The following list of tourism sector initiatives in the WRDM have been identified in the Gauteng Economic Opportunity Atlas, Gauteng GDS, Gauteng Tourism Development Strategy, Gauteng Tourism Sector Strategy, Gauteng Employment Growth and Development Strategy, WRDM IDP, WRDM RSDF, WRDM LED, WRDM Tourism Sector Strategy and various local municipal IDP, SDF, GDS, LED and other strategic documents, plans and strategies.

- ✓ Leisure tourism and MESE Tourism – Mogale City LM
- ✓ Cultural and historic activities linked to eco-tourism – Cradle of Humankind – Mogale City LM
- ✓ Township tourism and associated infrastructure – Mogale City LM
- ✓ Various projects to develop Magaliesburg as a major tourism hub – Mogale City LM
- ✓ Conservation of natural elements around Magaliesburg – Mogale City LM
- ✓ Eco-tourism opportunities at Riebeeck Lake and at disused mining shafts - Randfontein LM
- ✓ Eco-tourism, expansion of Magaliesberg steam train, mining-based tourism – Westonaria LM
- ✓ N12/R28 Intersection Crafters Market and Cultural Village along the N12 Treasure Route – Westonaria LM

DEVELOPMENT OPPORTUNITIES

- ✓ Promotion, information and infrastructure
 - Improved and focused marketing of the area as a tourist destination
 - Development of tourism packages
 - Improvement of tourism infrastructure, incl. transport links, signage, information services
 - Urban renewal projects
 - Stop crime
- ✓ Development of tourism attractions:
 - Focusing resources on development existing tourism potential, especially the COHWHS
 - Development of edu-tourism
 - Development of eco-tourism
 - Development of Magaliesberg steam train attraction
 - Mining based tourism
 - Development of Donaldson Dam
 - Development of Riebeeck Lake
 - Katlego Cultural Facility
- ✓ Development of specific tourist routes
 - Magaliesberg Eco-tourist route
 - Mine Route
 - Cradle of Humankind tourist route
- ✓ Tourism and hospitality training
 - Ensure that the demand for skilled and semi-skilled labour in the tourism sector is met through, e.g. a hospitality training college, training programmes, bursaries
- ✓ Tourism facilities
 - Development and improvement of tourism facilities and accommodation for the emerging, middle and high income tourist market
- ✓ SMMEs in tourism
 - Focusing on strengthening the role of SMMEs within the tourism sector in order to maximise employment creation

ECONOMIC NODAL DEVELOPMENT PERSPECTIVE

The following opportunities have been identified for each of the four local municipalities within the WRDM:

Mogale City Local Municipality:

- ✓ Manufacturing
- ✓ Mining
- ✓ Finance and Trade
- ✓ Construction

Randfontein Local Municipality:

- ✓ Agriculture
- ✓ Manufacturing
- ✓ Construction
- ✓ Trade
- ✓ Transport
- ✓ Finance

Merafong City Local Municipality:

- ✓ Trade
- ✓ Finance
- ✓ Manufacturing
- ✓ Mining

Westonaria Local Municipality:

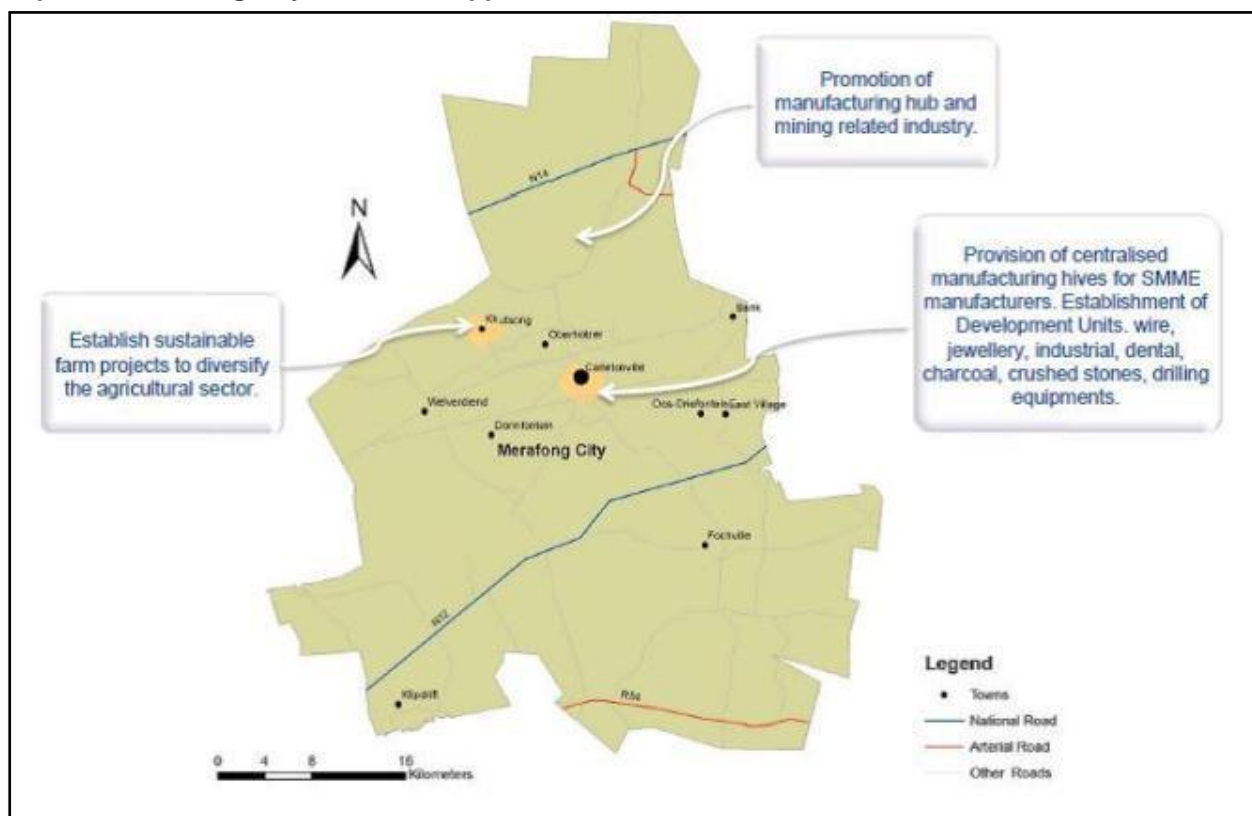
- ✓ Agriculture
- ✓ Manufacturing

MERAFONG CITY LM

The economic opportunities in Merafong City LM, as outlined in the figure above:

- ✓ Around the Khutsong area:
 - Establish sustainable farm projects to diversify the agricultural sector
- ✓ Around Carletonville:
 - Provision of centralized manufacturing hives for SMME manufacturers.
 - Establishment of Development Units (wire, jewellery, industrial, dental, charcoal, crushed stone, drilling equipment).
- ✓ Alongside the N14:
 - Promotion of manufacturing hub and mining related industry.

Map 4.24: Merafong City Economic Opportunities

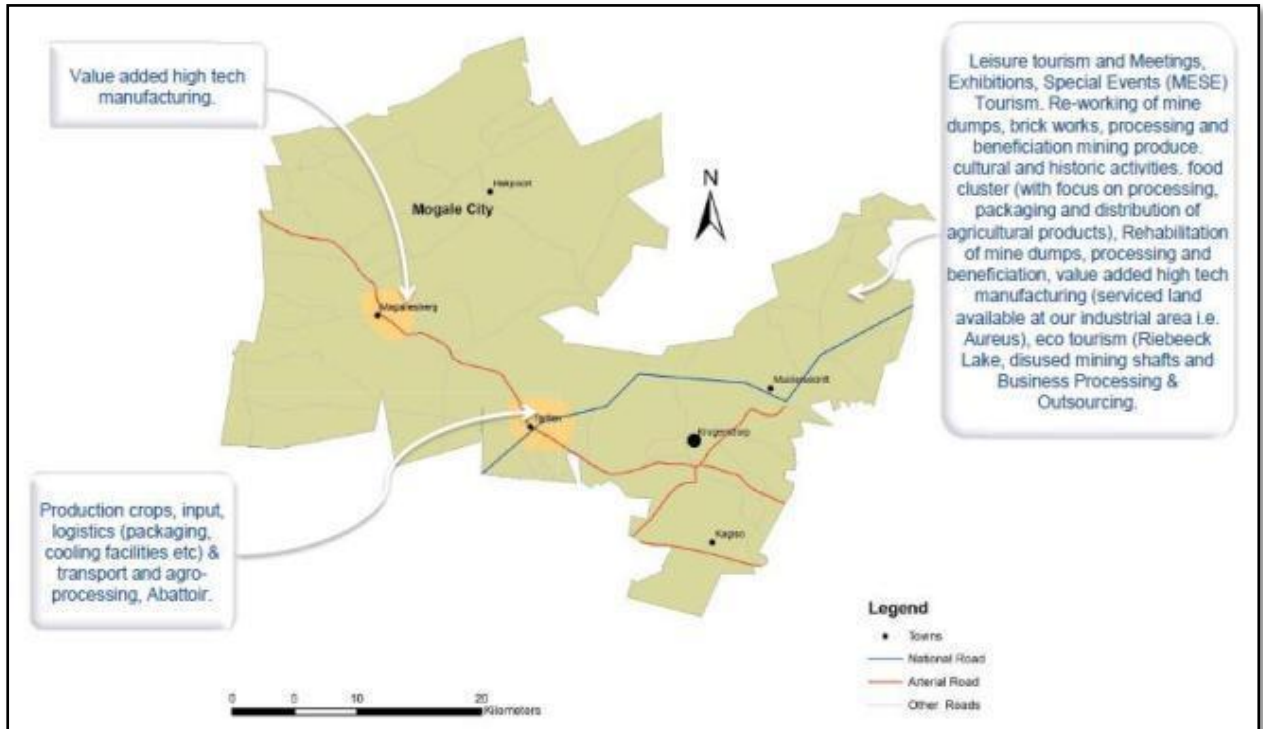


MOGALE CITY LM

The following opportunities was identified for the Mogale City Local Municipality:

- ✓ Around Magaliesburg:
 - Value added high tech manufacturing
- ✓ Area around the Cradle of Humankind WHS and the proposed Lanseria Aerotropolis:
 - Leisure tourism
 - Meetings, Exhibitions and Special Events (MESE) Tourism
 - Reworking of mine dumps, brick works, processing and beneficiation of mining produce
 - Cultural and Historic activities
 - Food cluster (with focus on processing, packaging and distribution of agricultural products).
 - Rehabilitation of mine dumps, processing and beneficiation, value added high tech manufacturing (serviced land available at the industrial area Aureus
 - Eco Tourism (Riebeeck Lake, disused mining shaft and Business Processing & Outsourcing)
- ✓ Around Tarlton:
 - Production crops, input, logistics (packaging, cooling facilities, etc.) & transport and agro-processing, Abattoir

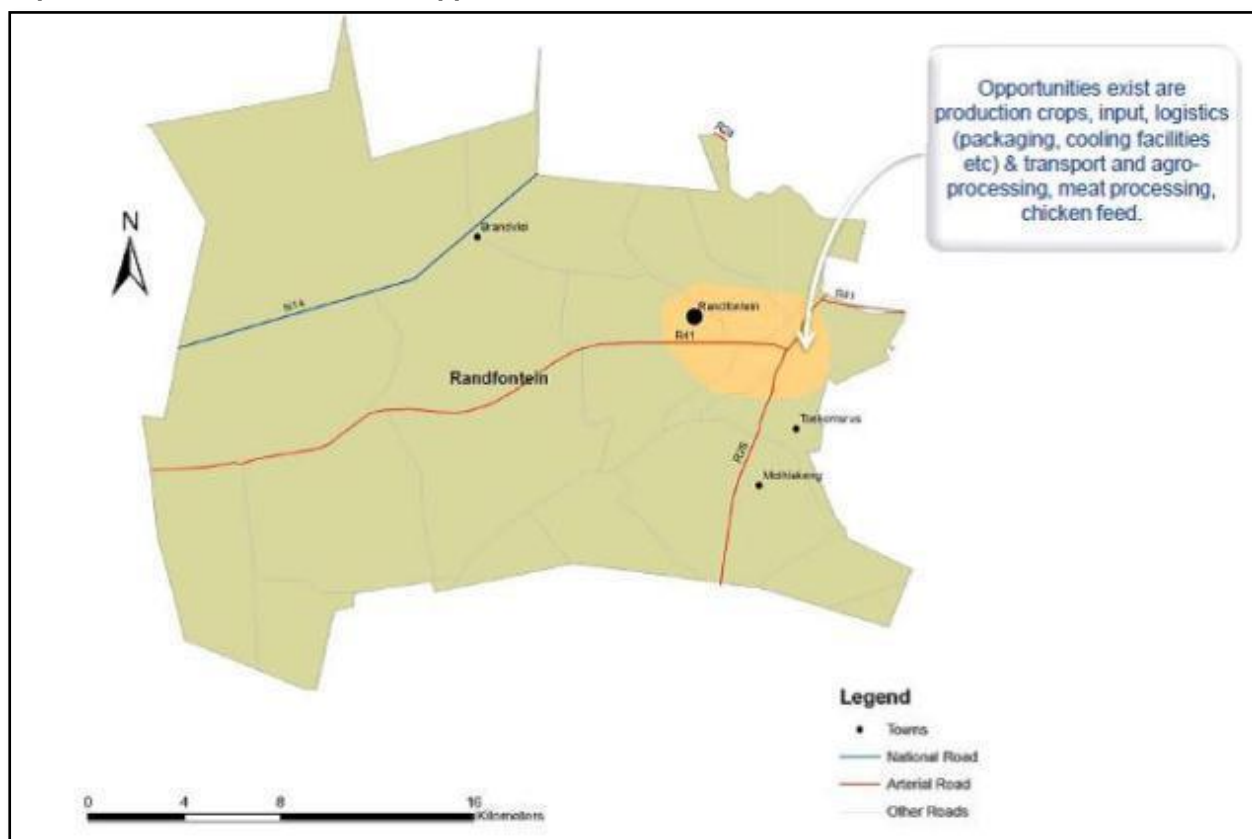
Map 4.25 Mogale City Economic Opportunities



RANDFONTEIN LM

Opportunities for production crops, input, logistics (packaging, cooling facilities, etc.) and transport and agro-processing, meat processing, chicken feed exist within the Randfontein area as outlined in the Figure above.

Map 4.26 Randfontein Economic Opportunities

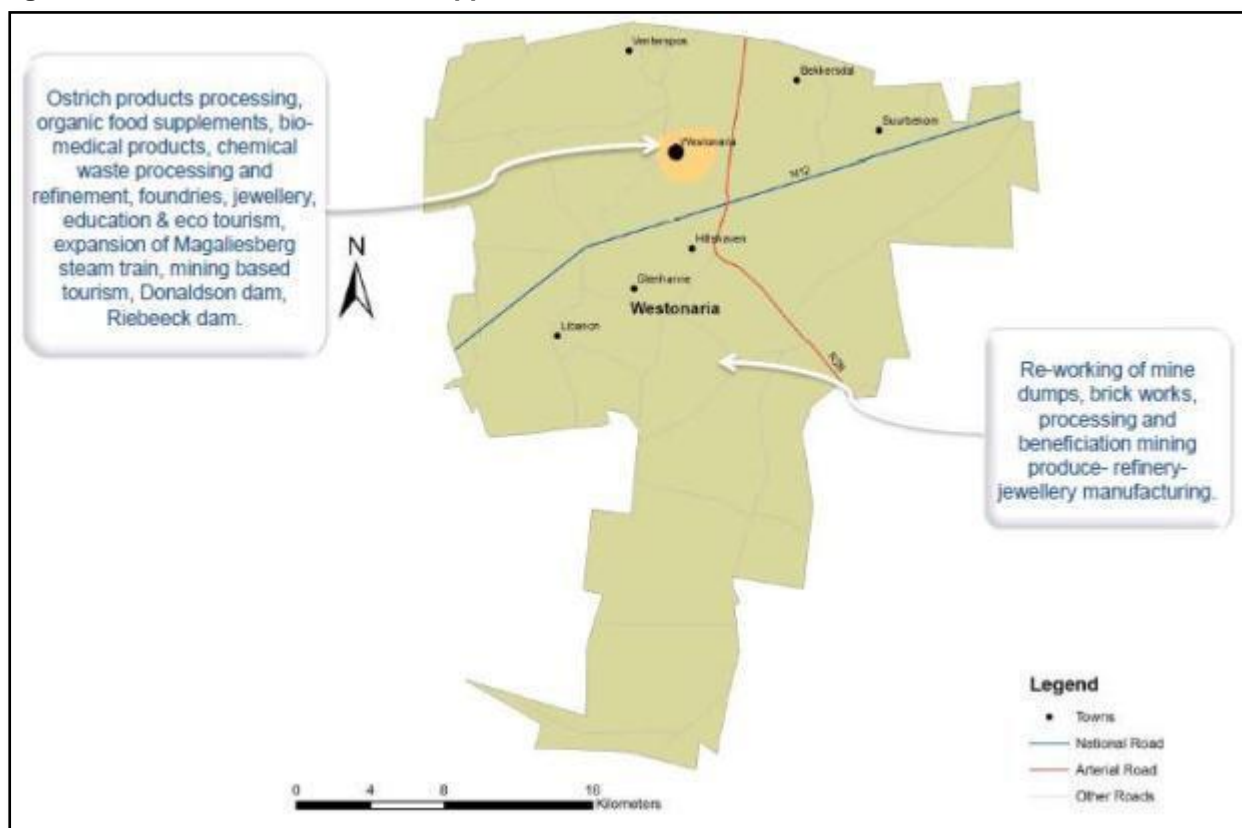


WESTONARIA LM

Around Westonaria it has been identified that opportunities exists with regards to ostrich product processing, organic food supplements, bio-medical products, chemical waste processing and refinement, foundries, jewellery, education & ecotourism, expansion of the Magaliesberg steam train, mining-based tourism, Donaldson dam and Riebeeck dam.

And south of the R28 and N12 in the Kalbasfontein area, opportunities have been identified with regards to the reworking of mine dumps, brick works, processing and beneficiation of mining produce, refinery and jewellery manufacturing.

Figure 4.27 Westonaria Economic Opportunities



Identified Development Sectors

The West Rand District Municipality Regional Economic Development Plan identified the following main sectors for future development / expansion:

- ✓ Intensive Agriculture Development
- ✓ Tourism Diversification and Development
- ✓ Green Economy
- ✓ Agro-Processing
- ✓ Smme Development
- ✓ Lanseria Nodal Development

4.3.12 WEST RAND DEVELOPMENT AGENCY STRATEGIC PLAN, 2012 - 2017

- ✓ Strategic Goal 1: To mobilise resources for economic development projects / programmes through partnerships
- ✓ Strategic goal 2: To provide trade & investment promotion support in the region
- ✓ Strategic goal 3: To provide programme / project management support services
- ✓ Strategic goal 4: To ensure business excellence within the WRDA

MICRO LEVEL

4.4 LOCAL POLICY FRAMEWORK

Following is a brief overview of the Spatial Development Frameworks of the four local municipalities located within the West Rand District Municipality which guides the future development of the region:

- ✓ Merafong City Local Municipality Spatial Development Framework
- ✓ Mogale City Local Municipality Spatial Development Framework
- ✓ Randfontein Local Municipality Spatial Development Framework
- ✓ Westonaria Local Municipality Spatial Development Framework

4.4.1 MERAUFONG CITY SPATIAL DEVELOPMENT FRAMEWORK

Merafong City Local Municipality (referred to as the Municipal Area) is located in the south-western extreme of the Gauteng Province. The municipal area is bordered by Tlokwe municipality and Ventersdorp municipality (North West Province) in the West and Mogale-, Randfontein- and Westonaria municipalities in the north and east.

The Merafong Spatial Development Framework is based on the following principles.

- ✓ **Principle 1:** Rapid economic growth that is sustained and inclusive is a prerequisite for the achievement of other policy objectives, among which poverty alleviation is key
- ✓ **Principle 2:** Government has a constitutional obligation to provide basic services to all citizens (e.g. water, energy, health and educational facilities), wherever they reside
- ✓ **Principle 3:** Beyond the constitutional obligation identified in Principle 2 above, government spending on fixed investment should be focused on localities of economic growth and/or economic potential in order to gear up private-sector investment, to stimulate economic activities and to create long term employment opportunities
- ✓ **Principle 4:** Efforts to address past and current social inequalities should focus on people, not places. In localities where there are both high levels of poverty and demonstrated economic potential, this could include fixed capital investment beyond basic services to exploit the potential of those localities. In localities with low demonstrated economic potential, government should, beyond the provision of basic services, concentrate primarily on human capital development by providing education and training, social transfers such as grants and poverty relief programmes. It should also reduce migration costs by providing labour-market intelligence to give people better information, opportunities and capabilities, to enable them to gravitate – if they choose to – to localities that are more likely to provide sustainable employment and economic opportunities
- ✓ **Principle 5:** In order to overcome the spatial distortions of apartheid, future settlement and economic development opportunities should be channeled into activity corridors and nodes that are adjacent to or that link the main growth centres. Infrastructure investment should primarily support localities that will become major growth nodes in South Africa and the Southern African.

Map 4.28: Merafong City within West Rand District Municipality



There are currently 7 formal settlement nodes within Merafong City:

- ✓ Carletonville
- ✓ Fochville
- ✓ Welverdiend
- ✓ Khutsong
- ✓ Kokosi
- ✓ Blybank

THE BIO-PHYSICAL ENVIRONMENT - GEOLOGY

A number of potential geological conditions affect Merafong City. The primary of these is the occurrence of dolomite within the Municipal Area. Past experience in the region has highlighted the dolomitic limitations affecting the Municipal Area, especially with regard to township development. The resettlement of Khutsong to safer geological land has received major attention and is adopted as a Presidential Project, receiving National attention and funding.

A Dolomite Risk Management System has been implemented in Merafong City. Geological classification zones have been identified by examining the available data for the Municipal Area concerning geology, geo-hydrology, geophysics, borehole data, sinkhole and doline data, dewatering, structural damage and risk characterization. According to the Council for

Geoscience and the State Technical Committee regarding Sinkholes, the following broad geological zonation is set out for Merafong.

Geological Zone 1

These areas are not directly underlain by dolomite. The Chuniespoort dolomite is located at depth, covered by younger rocks of the Pretoria Group and other younger formations. Fault zones and the contact area between the underlying Chuniespoort Formation and the overlying Pretoria Group should be avoided. Away from the fault zones and this contact zone the risk characterisation will range from 'low to no risk' of sinkhole and doline formation. This zonation does not take other constraints with respect to development into account e.g. topography, slopes, rocky outcrop, wet areas, drainage lines, contaminated areas, infrastructure, etc.

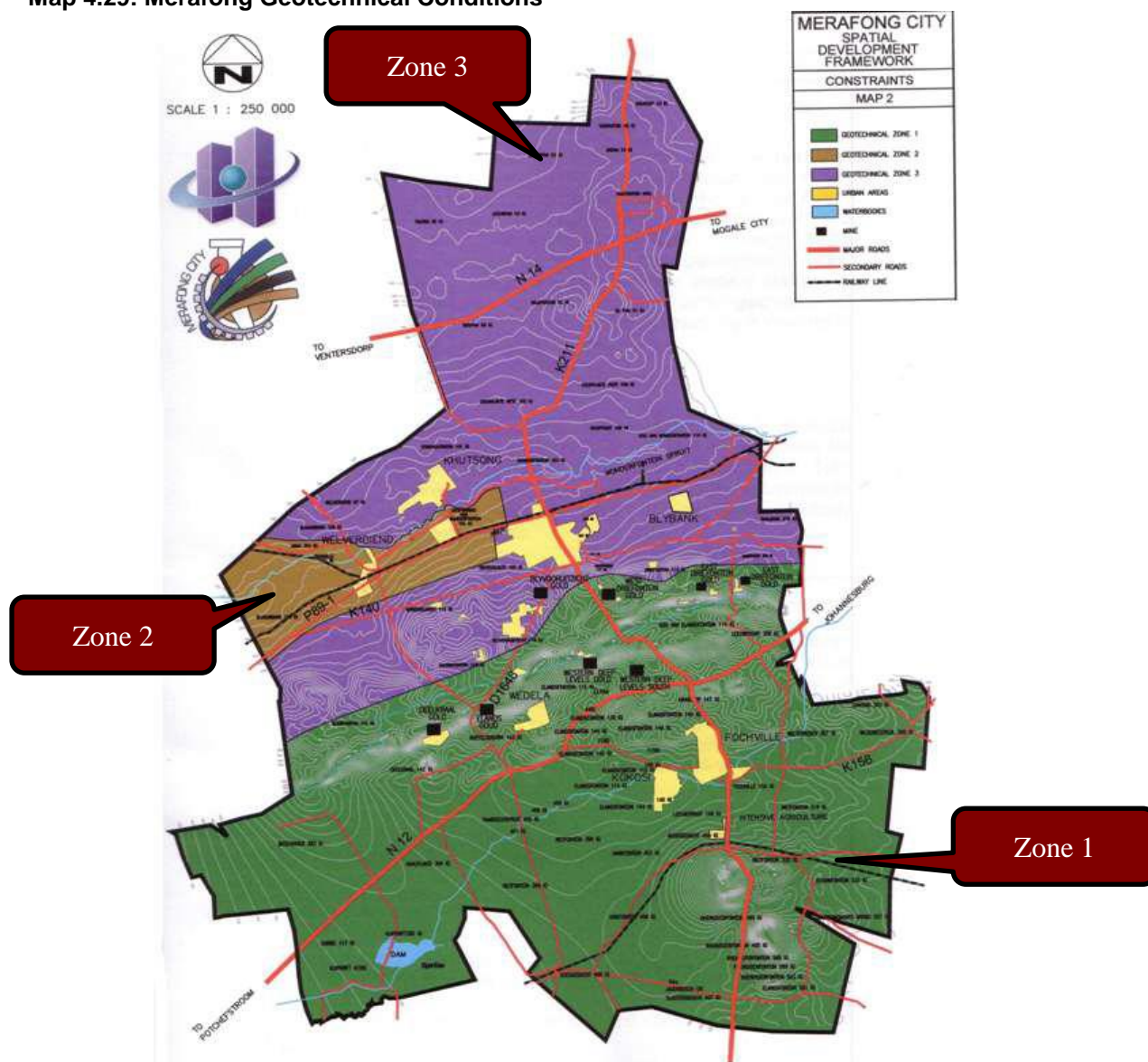
Geological Zone 2

These areas are located on dolomite and are anticipated to have dolomite stability conditions favourable for large-scale residential development. Sub-areas of this zone have been investigated and proven acceptable for development while adjoining areas require further geotechnical work. This zonation is only based on stability data and does not take into account other geotechnical constraints. The relocation of Khutsong is located in the geotechnical zone.

Geological Zone 3

These areas are unsuitable for new large-scale residential projects and should be considered for non-residential land uses, e.g. agriculture. Subareas may be suitable for commercial development subject to detailed stability investigations.

Map 4.29: Merafong Geotechnical Conditions



TRANSPORT NETWORKS

Merafong City is served by a complete transportation network covering all modes of transportation: road, rail and air.

Road

The road hierarchy serves the entire Municipal Area. At the upper end of the hierarchy 2 National roads, namely the N14 and N12, traverse the northern and southern halves of the Municipal Area respectively. These roads provide east-west mobility and link the Municipal Area to higher-order centres, such as Pretoria and Johannesburg. The R500 provides north-south mobility and links Carletonville and Fochville to each other as well as to the N14, Parys and Vereeniging. The R501, links Welverdiend-Khutsong-Carletonville to Randfontein as well as to Potchefstroom. The D1648 and K156, link Wedela and Kokosi to Fochville and Carletonville.

Rail

The Municipal Area is served by 2 railway lines, both traversing the Municipal Area in an eastwest direction. The southern railway line is a freight railway line serving the Fochville

industrial area, linking it with Potchefstroom and Vereeniging. The northern railway line runs parallel to and abutting road P89-1, linking Welverdiend, Khutsong, Carletonville and Blybank with Potchefstroom and Johannesburg. This railway line will become significant in terms of settlement expansion and providing modal choice. The commuter-carrying potential of this railway line was capitalized upon by the location and design of the new Khutsong South Extensions development.

Air

The Municipal Area is served by 3 minor airstrips and numerous helicopter landing pads situated at mines and at the Sybrand Van Niekerk Provincial hospital. The Carletonville Airstrip is located to the west of Carletonville, next to road P89-1. The Johannesburg Skydiving club mainly utilizes the Carletonville Airstrip and development around the airstrip focuses mainly on their specific needs. The Fochville airstrip is located south of Fochville, next to road K211. This airstrip is mainly used by businessmen in the Fochville area and mining industry. A third is located on the farm Blaauwbank. A new aerodrome has been proposed near Fochville which will significantly improve Merafong's accessibility by air. The site that has been proposed is less than 10 kilometers east of Fochville which will be able to accommodate medium sized passenger and freight planes. The O.R Tambo International airport is experiencing problems with aircraft that have to be diverted to other locations because of unforeseen circumstances. The proposed aerodrome would provide a landing location for aircraft affected by such incidents

Movement Patterns

Movement within Merafong City can be divided into three categories: Firstly, movement that traverses the Municipal Area not having any settlement within the Municipal Area as a destination, movements along the national roads of the N12 and N14 have reference. The N12 and N14 forms the main access routes to the Cape via Potchefstroom and the N14 to the northern parts of Northwest. Secondly, movement that takes place between destinations or settlements within the Municipal Area and settlements outside Merafong. In this regard the most important economic and commuter linkages exist between Carletonville and Potchefstroom and between Carletonville and Fochville and Johannesburg. Thirdly, traffic with origins and destinations within Merafong.

With regards to internal movement, a number of prominent routes are identified. Firstly, there is a strong movement of people between Fochville and Carletonville. With the completion of the Khutsong South Extensions development, the movement axis between Welverdiend, Khutsong and Carletonville will become even stronger than what it currently is. Thirdly, a movement axis is found between Wedela, Kokosi and Fochville, with Fochville and its commercial component being the destination.

UNDERMINING

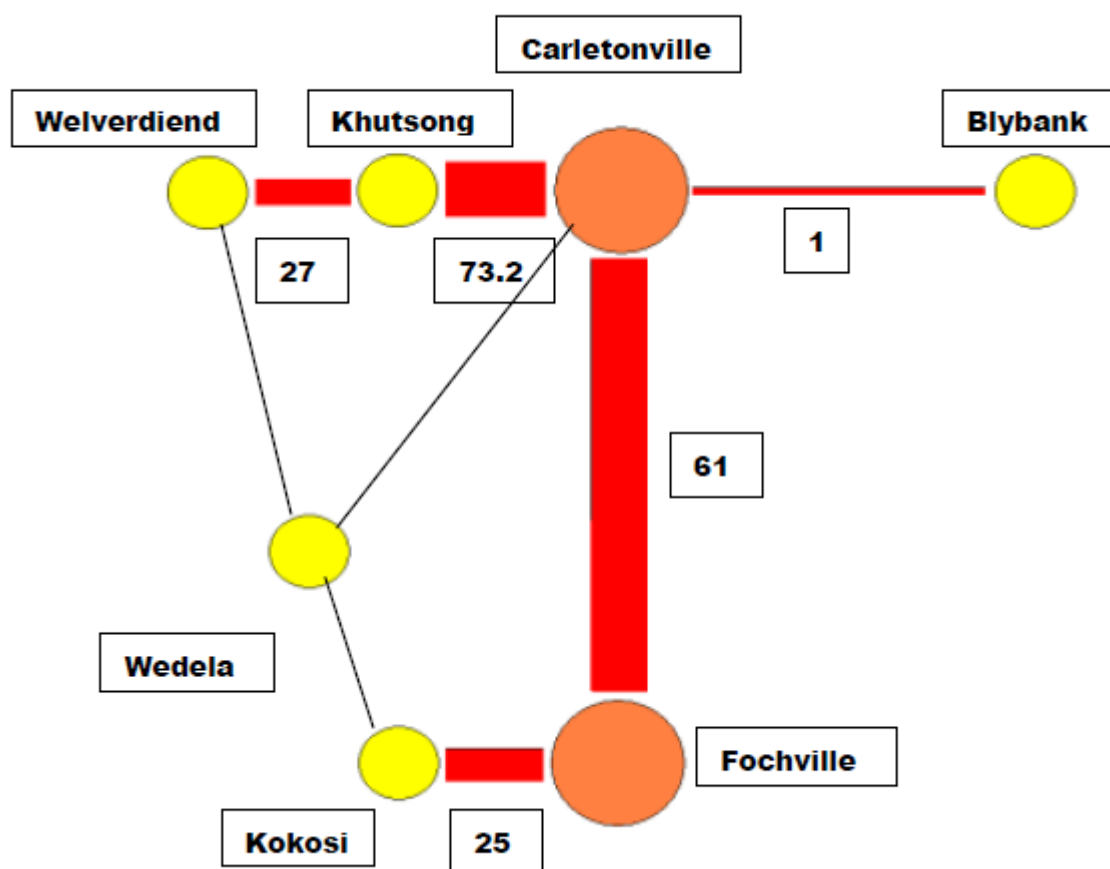
In general, mining within Merafong City consists of deep level mining and therefore rarely impacts upon urban development within the Municipal Area in terms of ground stability. As a rule of thumb, urban development can occur on mined land where mining is at a depth exceeding 240m below the surface. Mining in Merafong City generally occurs at a far greater depth, with one of its mines holding the record as the deepest mine in the world.

CORRIDORS

Inter-Urban Corridors

Figure 4.2 gives a schematic illustration of the interaction potential of corridors within Merafong City, based on the gravitational model. An increase in value demonstrates an increase in interaction potential.

Figure 4.2: Merafong Corridors



Welverdiend-Khutsong-Carletonville Corridor

- ✓ This is a primary development corridor which has to receive investment priority. This corridor has the most interaction potential according to the Gravitational Interaction Model with the following values:
 - Welverdiend-Khutsong: 15
 - Khutsong-Carletonville: 65.6
 - Welverdiend-Khutsong-Carletonville: 73.2
- ✓ Transport modes (road and rail) along the spine have to be developed to provide maximum efficiency and access.
- ✓ Public transport infrastructure has to be developed.
- ✓ This corridor and immediately adjacent areas should be prioritized for bulk infrastructure provision.
- ✓ A foot- and bicycle path network should be developed along the corridor to ensure safety and efficiency of movement.
- ✓ Densification and mixed land uses have to be encouraged along the corridor spine to ensure:
 - maximum public transport efficiency,
 - cost savings on infrastructure development,
 - the improvement of choices, and
 - improve minimum economic thresholds.
- ✓ The long term goal of this corridor is to facilitate the physical, social and economic integration of Welverdiend, Khutsong and Carletonville into a single Multi-nodal city.

Carletonville-Blybank Potential Corridor

- ✓ This communication axis can be considered as a low intensity mixed use corridor for the following reasons:
 - This is an existing communication axis between Carletonville and Randfontein.
 - There already exists a mixed land use character: industrial, horticulture, solid waste disposal and agricultural.
 - Because of the land fill site and the slimes dam, land use options are restricted and most of the area's land is in a degraded state.
 - Businesses that can cater for their own water and sanitation requirements are preferable.
 - Blybank is spatially and economically isolated resulting in an economically unsustainable settlement. A mixed use corridor will help to address this issue.
 - It has to be mentioned that the geology may be of concern.
- ✓ This potential corridor has a low interaction.

Fochville-Kokosi corridor

- ✓ This is for the most part a commuter corridor with relatively high interaction potential (25) according to the Gravitational Interaction Model.
- ✓ Road transport along with public transport infrastructure has to be developed/upgraded if needed.
- ✓ Pedestrian traffic must be separated properly from motorized traffic through the implementation of a foot- and bicycle path network.
- ✓ This corridor and immediately adjacent areas should be prioritized for bulk infrastructure provision.
- ✓ Densification and mixed land uses have to be encouraged along the corridor spine to ensure:
 - maximum public transport efficiency,
 - cost savings on infrastructure development,
 - the improvement of choices, and
 - improve minimum economic thresholds.
- ✓ The long term goal of this corridor is to facilitate the physical, social and economic integration of Kokosi and Fochville into a single multi nodal city.
- ✓ This corridor in addition to the corridor between the Fochville CBD and the N12 should be the focus point of targeted economic investment.

Carletonville-Fochville Corridor

- ✓ This is a transport/commuter corridor that sustains the bi-nodal relation between Carletonville and Fochville.
- ✓ This corridor has a high interaction potential value according to the Gravitational Interaction Model. In spite of this, it should not be developed as a development corridor, as it will not be sustainable due to the economic distance friction and topography. The inevitable mining closures in the future will also have a negative impact on development along this corridor.
- ✓ The intersection of the N12 and the R500 however has high development potential, and has been designated as a regional development node. At this node mixed land uses should be promoted and economic opportunities maximized. Bulk infrastructure should eventually be developed and the space between this node and Fochville should also be developed. This node requires a Precinct Plan to manage and encourage development. The cost of developing infrastructure at this location should be estimated in order to plan for the longer term.

Wedela

- ✓ Wedela is not a sustainable settlement in the long run and has an insignificant interaction potential value of less than 1 according to the Gravitational Interaction Model.

Furthermore it has a low economic development potential. According to the National Spatial Development Perspective, economic infrastructure development should only focus on areas with perceived significant economic potential. Therefore capital intensive investment in Wedela should focus on social development and linking Wedela with Fochville.

N12 Treasure Spatial Development Initiative

- ✓ Merafong City falls within the so-called Treasure Spatial Development Initiative zone (SDI). The Treasure SDI recognizes the need to stimulate economic growth and job creation within the municipalities it traverses and can therefore be an effective vehicle for local economic development within Merafong City. In general, Spatial Development Initiatives focus high level support in areas where socio-economic conditions require concentrated government assistance and where inherent economic potential exists. The major projects in the SDIs are based on a partnership between the public and private sectors and are set to provide opportunities for participation in various economic sectors.
- ✓ Projects to be developed in an SDI can be drawn from 4 primary economic sectors. These sectors are agriculture, mining, tourism and industrial/ commercial development. The purpose is to identify a suitable sector mix for an area that will unlock and develop the region's inherent potential. Infrastructure development is used as a catalyst for unlocking this potential. The primary objective of Merafong City must be to identify investment opportunities within the Municipal Area associated with the Treasure SDI.

THE INDUSTRIAL DEVELOPMENT ZONES

In order to —kick start industrial investment in Merafong investment incentives are required. Once the municipality has reached a satisfactory level of industrialisation the approval of new incentive packages can be stopped or reviewed to be more appropriate to the conditions of that time.

It is necessary to create a *critical industrial mass* by increasing the number of industrial businesses. Once this critical mass has been reached a state of conjunctive symbiosis will be obtained within industry clusters and disjunctive symbiosis in general. Tailor made industrial incentive packages will be offered to industrialists who locate to the designated zones. Specifics still have to be completed.

The Merafong Growth and Development Strategy (GDS) and the Merafong Spatial Development Framework (SDF) promote the creation of an incentive scheme that is competitive with neighbouring local authorities. This will serve to improve the competitiveness of the local economy and help to pave the way to a more sustainable economy.

FACILITATION OF SUSTAINABLE ECONOMIC DIVERSIFICATION.

Being the biggest driver of economic activities in Merafong City, the mining sector is currently the most critical sector for the municipality's economic wellbeing. Mining as an economic driver is however not sustainable in the long run since the mines will eventually be depleted within a few decades. Input costs are also of major concern to mining profitability.

Considering this strategic problem the economy needs to be diversified. Furthermore diversified economies tend to weather bad economic times more easily, have higher growth rates in general and have higher labour absorption rates.

- ✓ The Urban Development Framework of 1997 states that spatial planning and economic planning needs to be integrated and that targeted economic development is of primary importance.

- ✓ According to the National Spatial Development Perspective of 2006 (NSDP), government spending on fixed investment should be focused on localities of economic growth and/or economic potential, in order to gear up private-sector investment, stimulate sustainable economic activities and create long-term employment opportunities.
- ✓ The Regional Industrial Development Strategy (RIDS) calls on all regions to build their industrial economies based on local competitive advantages and opportunities.
- ✓ The economy of Merafong needs to be diversified away from mining as its primary economic driver.
- ✓ Multiple economic pillars need to be created and/or strengthened on which the new economy will be built. These pillars will serve as the new drivers of the economy.
- ✓ The economy needs to be further diversified from its economic bases in terms of value addition to create a propulsive, self-sustaining and flexible economy that is competitive and has the ability to create job opportunities.

These outcomes can be reached through systematically changing the economic morphology of the municipality. The following are key areas in terms of changing the economy in a sustainable way:

- ✓ Beneficiation of gold and gold mining by-products.
- ✓ Side-stream support industries for the gold mining sector.
- ✓ The development of economic clusters and industry attraction that is focused on non-mining economic activities.
- ✓ Developing the rural economy.
- ✓ Maximising the value of developed infrastructure that will be left behind after mining activities have ceased.

BENEFICIATION AND VALUE ADDITION OF MINING PRODUCTS

Gold is beneficiated mainly through the smelting of the ore and value addition occurs in the manufacturing of jewellery and intermediate industrial and chemical products. The manufacturing of these types of goods require refined gold that has been smelted. There are no gold smelting activities in Merafong and therefore the value addition of gold within Merafong seems to be unfeasible. It also seems unlikely that a smelting plant would be a viable option. When technological advancements make deep mining more profitable, vast ore reserves will become accessible between Carletonville and Potchefstroom which will breathe new life into the mining sector in Merafong, it seems though that beneficiation and value addition will remain unfeasible. Although the beneficiation of gold seems unfeasible, the potential for *refining uranium* which is extracted with gold in Merafong seems more feasible, especially considering the new world wide interest in nuclear energy.

There are however opportunities for the beneficiation of mining by-products such as wood, stone and the refining of old mine tailings for gold and uranium.

THE ECONOMIC BASE, INDUSTRY ATTRACTION & ECONOMIC CLUSTERS

The global space economy is rapidly changing. With the expansion of regional and international trade, competition from other regions, rapid changes in technology, changes in production techniques and an increasingly globalised society, the normal old rules that governed the settlement of new businesses and industry groupings have changed. Many regions and local authorities have adapted their economic development strategies accordingly.

Merafong has many spatial economic advantages and disadvantages. It is of paramount importance that Merafong improve its competitive position in the global-, and more importantly the regional economies of Gauteng, its intermediate region and Southern Africa.

One of the most successful new strategies for improving competitiveness and attracting new industries and developing existing ones is the development of industry clusters.

Industry clusters are groups of industries that are highly interdependent in that they buy and sell from each other or from a similar source, and/or that their products are functionally interrelated, so that their components (sectors and industries) are usually geographically concentrated in specific regions or cities. Clusters of predominantly small firms can gain economies of scale and scope and increased flexibility through specialization and inter-firm cooperation. If they cluster they can improve their sectoral and regional competitiveness.

There are three significant attributes associated with contemporary notions of industry clusters:

- ✓ *Shared end-markets:* This typically includes companies that produce similar goods for several markets, and have similar relationships with customers, with other industries, wholesale retail trade sectors or directly with customers.
- ✓ *Strong buyer-supplier linkages:* Clusters tend to have important relationships with suppliers. This characteristic has become more important as industries have decreased their degree of vertical integration and outsourced inputs into production.
- ✓ *Shared technology and know-how:* Clusters are likely to share technologies, information and skills in their work. This is particularly true on knowledge-based industries where a close association of skilled workers helps to create a synergy of new ideas and foster innovation.

Regarding the economy of Merafong one question is emerging as a critically important factor influencing the long term sustainability of the economy: What will sustain the economy after mining activities start to go into rapid decline? The economy of Merafong is currently undergoing a seemingly accelerating process of diversification which is great news; however there is a critical gap in this diversification that lies at its roots. Almost all economic activity is based on the mining sector; even the newly diversified side shoots in the economy have their roots in the mining sector which is the primary attractor of basic investment that drives other forms of economic activity through the economic multiplication effect. Therefore it is important to diversify the basic and not just the non-basic economic activities within Merafong. (Basic economic activities are those that attract money from outside through exports and spend it locally, for example mining. Non-basic activities are dependent on basic activities in that they offer supportive activities and re-circulate the money that has been brought in by the basic sector, for example most retail activities.) The following basic economic activities are considered feasible for Merafong:

- ✓ *Industrial/manufacturing:* This can be divided into three components:
 - Industrial activities that are associated with mining that are able to shift away from mining, for example steel fabrication. Industrial activities bring in sizable amounts of capital that promote the development of higher order economic functions.
 - Industrial activities that are directly linked to mining. These activities should not be forgotten since they have their part to play and also have the ability to pave the way for other industries to locate here through disjunctive symbiosis.
 - Industrial activities that is not associated with mining, most notably agro-processing.
- ✓ *Agriculture:* Although agriculture is not necessarily a good direct contributor to GGP it creates many job opportunities for unskilled and semi-skilled workers and it is one of the most potent economic multipliers and stimulates significant retail and service activity. It is also of critical importance that agricultural output is increased if agro-processing is to be feasible.

- ✓ **Tourism:** Merafong has moderate tourism potential that should be encouraged to develop because the tourism sector has a proportionately high number of SMMEs compared to other sectors and is also a potent economic multiplier.

The following clusters already exist or could be created from the opportunities that are present:

- ✓ Agricultural beneficiation cluster
- ✓ Metallurgical cluster.
- ✓ Construction cluster
- ✓ Waste (recycling) cluster

GENERAL INDUSTRIAL DEVELOPMENT

Given the local economy's existing strengths in mining-related manufacturing and services, especially the manufacturing of metal products, together with its close proximity to and strong economic linkages with the Gauteng market, Merafong City has an opportunity to establish itself as a manufacturing hub within the greater economic Global City Region, specialising in:

- ✓ Metal products, metal fabrication and engineering works
- ✓ Mining-related service industries and manufacture of mining inputs, e.g. drilling and other equipment, explosives, etc.
- ✓ Beneficiation of mining products and by-products, i.e. uranium, stone, cement
- ✓ Manufacture of construction and building materials
- ✓ Beneficiation and value addition of agricultural produce
- ✓ The availability of vast underground water reserves could attract water intensive industries.

With development and diversification of the proposed manufacturing hub, further capabilities could possibly be developed in capital and transport equipment, automotive components, chemicals and plastics fabrication. The proposed manufacturing hub and diversification of manufacturing activities could act as a catalyst for growth in the Merafong City economy through economic linkages and multiplier effects. The establishment of agro-processing activities could stimulate the agricultural sector, while downstream benefits may accrue to the trade, transport and business services sectors.

Identified Development Sectors

The Merafong City Spatial Development Framework identified the following main sectors for future development / expansion:

- ✓ Industrial / manufacturing - steel fabrication, agro-processing.
- ✓ Diversification away from mining - beneficiation of mining by-products such as wood, stone and the refining of old mine tailings for gold and uranium.
- ✓ Agriculture beneficiation
- ✓ Tourism
- ✓ Metallurgical.
- ✓ Construction
- ✓ Waste (recycling)

4.4.2 MOGALE CITY SPATIAL DEVELOPMENT FRAMEWORK

Mogale City lies directly west and south of the Johannesburg and Tshwane metropolitan areas respectively, and forms part of one of three districts that make up the peripheral areas of Gauteng province. To the north, west and south it borders onto Madibeng Local Municipality, the West Rand District Management Area, Rustenburg Local Municipality and Randfontein Local Municipality respectively.

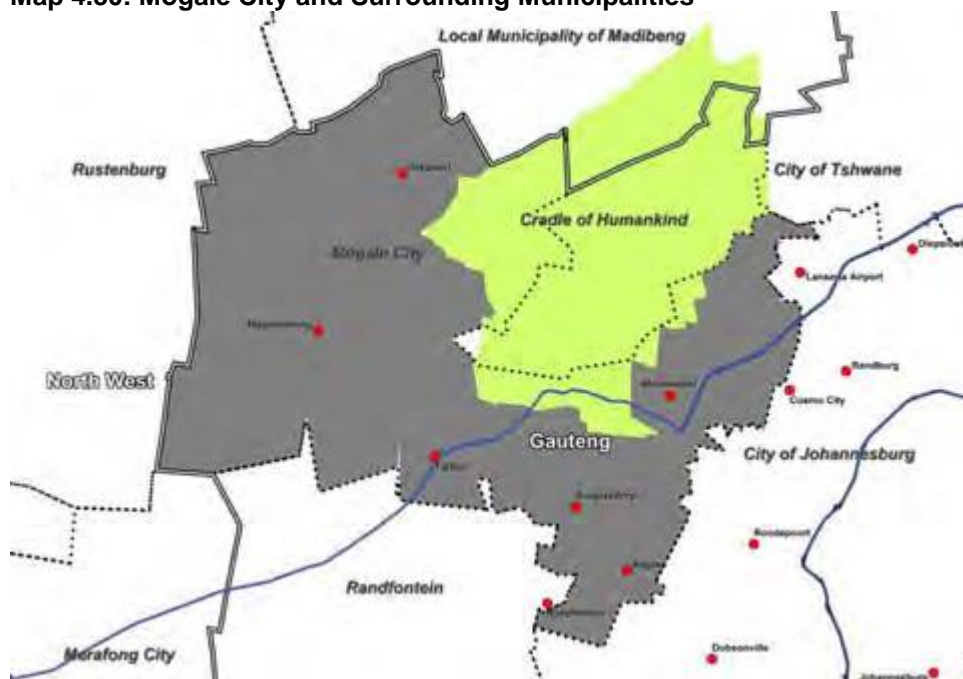
Due to its location on the edge of Gauteng's conurbation, the largest part of Mogale City is rural in nature. The rural environment is characterised by intensive as well as extensive agricultural development, agricultural holdings, physical elements such as mountains and rivers, wilderness areas and nature conservation areas.

The largest urban concentration in Mogale City is found in the south-eastern part of Mogale City, around Krugersdorp and Kagiso. This area forms part of a band of development stretching from the Johannesburg Inner City westwards along the mining belt up to Krugersdorp. The Krugersdorp/Kagiso area therefore forms an integral part of the Gauteng conurbation. Krugersdorp comprises the Krugersdorp CBD which is the main business, social and administrative centre in Mogale City and fulfils a regional function.

The areas to the south of Krugersdorp, namely Kagiso, Azaadville and Rietvallei are predominantly previously disadvantaged settlements with more limited access to services and facilities than the Krugersdorp areas. These areas are also physically separated from the Krugersdorp urban areas by an extensive mining belt that runs in an east-west direction through the area. This makes future integration of these areas very difficult, if not impossible.

Other settlements in Mogale City are Tarlton, Magaliesburg and Hekpoort, located in the western part of Mogale City. These are generally small settlements that are in essence no more than rural service centres providing a central place service to the surrounding rural and farming communities. Magaliesburg is perhaps the best developed of the three with a distinctive tourism function.

Map 4.30: Mogale City and Surrounding Municipalities

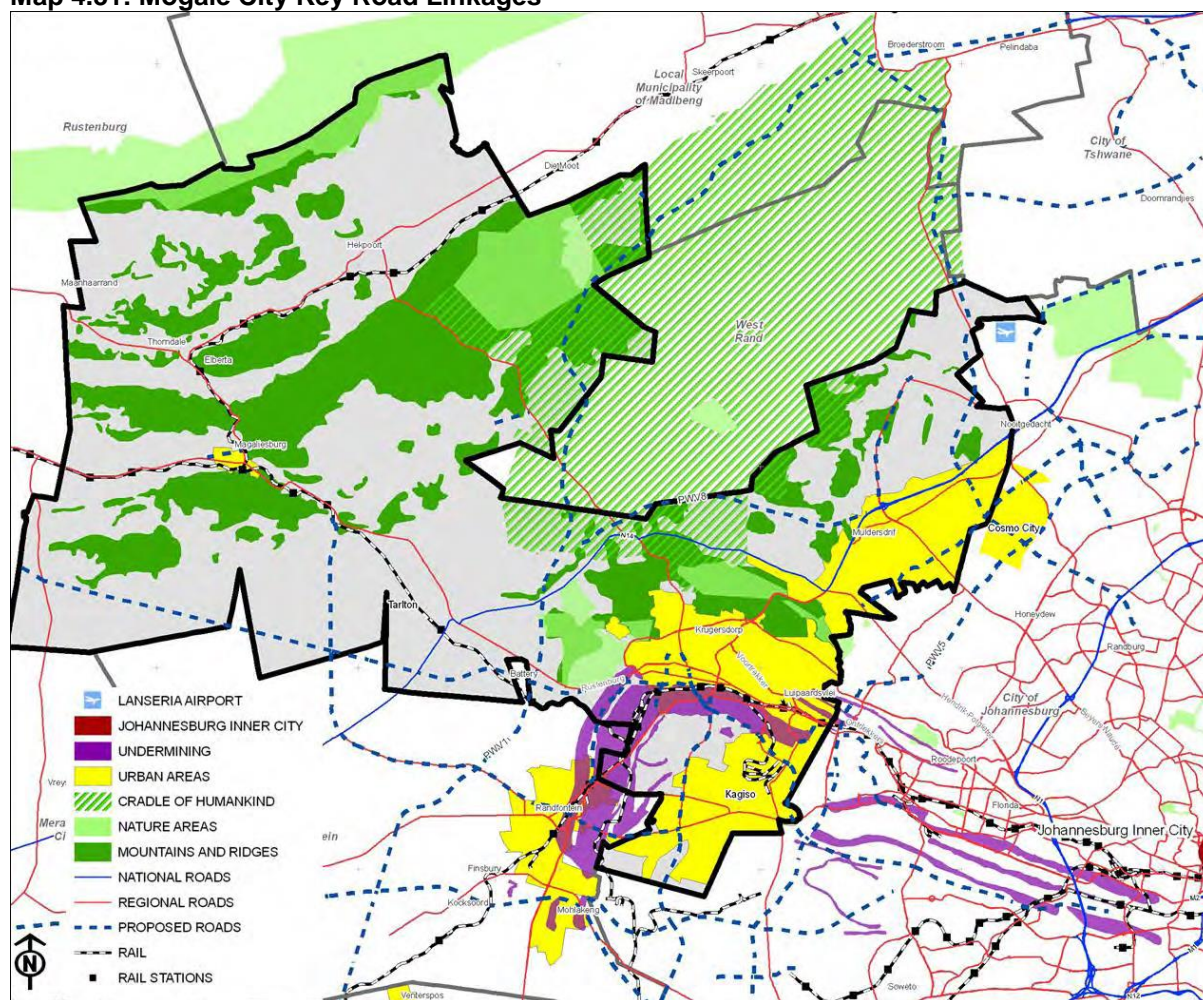


The Muldersdrift area lies to the north of Krugersdorp, on either side of the R28. To the east it is bounded by urban development in Johannesburg, while the Cradle of Humankind World Heritage site lies to the west thereof. The clash between pressure for urban expansion and the conservation requirements results in conflicting development agendas in the area.

The Cradle of Humankind World Heritage Site lies predominantly in the West Rand District Management area to the north of Mogale City, but also extends into the western, central and eastern part of Mogale City. The new buffer zone around the Cradle of Humankind World Heritage Site however extends deep into Mogale City in a western, southern and eastern direction.

The major movement linkage that exists in the municipal area is the R28/N14 route, which runs through Mogale City from the City of Tshwane, across part of Johannesburg and onto Randfontein Municipality and North-west Province. The strongest east-west movement linkages between Mogale City and Johannesburg are along the R512 (Malibongwe Road), Beyers Naude Drive, Hendrik Potgieter, Voortrekker/Ontdekkers/ Main Reef Road and Randfontein Road, as well as the east-west railway line.

Map 4.31: Mogale City Key Road Linkages



MAJOR PLANNING AND DEVELOPMENT INITIATIVES

Mogale City does not function as an island, but forms part of a development region that spans across administrative boundaries and where planning and development initiatives in one area can have a significant impact (either positive or negative) on the development

potential, trends and future of another area. For this reason it is important to take cognisance of the major development and planning initiatives currently underway both within Mogale City as well as along its boundaries with other local municipalities, as these could have a significant impact on the spatial development proposals for the area.

The planning and development initiatives can be divided into two major groups, namely those in the *natural or rural environment*, and those in the *urban environment*. When looking at the natural or rural environment, there are two major initiatives that have an impact on spatial development proposals. The first is the Cradle of Humankind World Heritage Site Buffer Zone, and the second is the Gauteng Agricultural Hub.

The *Cradle of Humankind World Heritage Site Buffer Zone* is a new initiative from the Gauteng Department of Agriculture, Conservation and Environment (GDACE) intended to create a layer of additional environmental and land use protection to cushion the WHS against developments and activities. The proposed new buffer zone around the Cradle covers almost the entire Mogale City save for the existing built-up areas, the area to the east of the R28 and some outlying areas in the western part of Mogale City. Currently, GDACE is still in the process of finalising the Environmental Management Framework for the Cradle of Humankind World Heritage Site and the buffer zone, with the result that there is currently no clarity on the type and intensity of land uses proposed for the buffer zone.

The *Gauteng Agricultural Hub* lies in the south-western part of Mogale City, roughly to the south and west of the R24, and forms part of one of six such hubs throughout the province. The focus of these hubs is on the creation of centres of high quality agricultural activity, where niche market agricultural products such as vegetables, including indigenous vegetables, flowers, herbs and spices, will be farmed. The areas that form part of the agricultural hub must be vigorously protected from land uses and developments that will diminish the agricultural potential and value of this area on the one hand, and on the other hand the spatial development framework must make provision for land uses that can support the agricultural activities in these areas.

A number of current planning and development initiatives have a significant impact on the direction of future **urban development** in Mogale City. Probably the most significant of these is the proposed development of a large regional node around the **Lanseria Airport** (also referred to as the Aerotropolis development), comprising mixed land uses, tourism related uses and high density residential development. The western half of the airport's influence sphere (from a development perspective) lies in Mogale City, and hence will have a definite impact on development in this area.

It cannot be expected that the development energy created by the airport and the Aerotropolis initiative can be restricted to the Johannesburg side of the airport over the medium to long term. A specific development which is currently proposed for the Lanseria area is a mixed-use development known as Cradle City. This development straddles both Mogale City and the City of Johannesburg. The land uses proposed for the Mogale City portion of the development includes retail, commercial, offices, high density residential, low density residential development and tourism. This development however conflicts with the Cradle of Humankind World Heritage Site Buffer Zone and the interface between the two is an issue that needs to be discussed and resolved on provincial level.

Many urban development initiatives are located in the City of Johannesburg along Mogale City's eastern boundary and result in particular development pressure in the eastern part of Mogale City. These include –

- ✓ The proposed expansion of the Cosmo City residential complex, aimed at providing affordable housing in this area. These developments already extend up to Mogale City's

boundary, and it can be expected that it will eventually start to spill over into Mogale City into the Muldersdrift area.

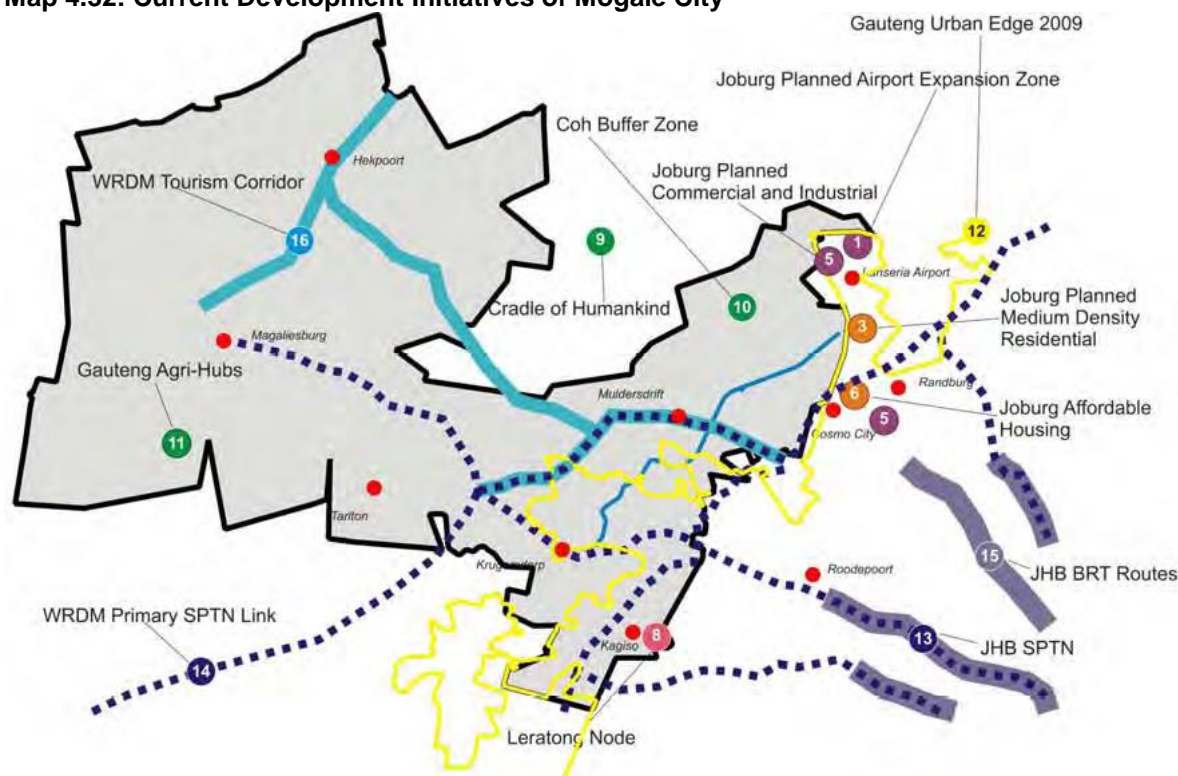
- ✓ In terms of local planning frameworks for the City of Johannesburg, high density residential development is proposed for the area around the intersection of the R512 and the R28, between the Cosmo City development and the Lanseria airport node.
- ✓ Krugersdorp forms the western anchor of the City of Johannesburg's East-West Development Corridor which runs midway through the City of Johannesburg between Ekurhuleni and Mogale City and which incorporates the traditional mining belt. The mining legacy of the area has also presented a number of environmental challenges and constraints, the most visible of these being the numerous mining dumps. The City of Johannesburg recognises the East-West Development Corridor as an important area with great potential to promote *spatial integration* together with *social* and *economic growth*.
- ✓ Johannesburg's Strategic Public Transport Network includes the R512 (Malibongwe Drive), Beyers Naudé Drive, Ontdekkers Road and Randfontein Road up to the boundary of Mogale City. The Johannesburg BRT routes along the R512, Ontdekkers Road and Randfontein Road also run close to the boundary of Mogale City. The linkage of these public transport networks into Mogale City and the resulting impact on land uses are of importance for the spatial development framework.

Major planning and development initiatives of regional importance in Mogale City include-

- ✓ The proposed Leratong Node which is located on the intersection of Randfontein Road and Adcock Road at the Leratong Hospital and the proposed Leratong Intermodal Facility. The purpose of this initiative is to establish a development node that will be of strategic importance to the wider Kagiso community.
- ✓ The N14/R28 Development Corridor.
- ✓ The West Rand District Municipality's Strategic Public Transport Network which runs along the N14, R28, R24, Voortrekker Road and Randfontein Road (R41) in Mogale City.

Lastly, the urban edge as demarcated by the Gauteng Provincial Government has a significant impact on the development of Mogale City, as this edge restricts urban development. Currently in Mogale City the urban edge is aligned with existing urban areas and do not make provision for urban expansion. This is due to the provincial government's need to stimulate in-fill development and densification rather than horizontal urban expansion, which is in principle supported by the Mogale City administration. Conflict however exists between the development energy that exist because of certain strategic development generators such as the airport and the R28/N14 and the current alignment of the urban edge. A balanced, sustainable solution will therefore have to be found for the demarcation of the urban edge in Mogale City.

Map 4.32: Current Development Initiatives of Mogale City



MAJOR PRESSURE FOR DEVELOPMENT

The major pressure points for development are:

- ✓ Around **Krugersdorp**, which sees natural continuous urban expansion as this town grows. Because of the fact that Krugersdorp is the highest order urban centre in Mogale City comprising the higher order goods and services, as well as the fact that it has a strong functional linkage with Johannesburg, this area naturally attracts the bulk of development pressure in the municipality.
- ✓ The **Muldersdrift** area is an area that over the years has begun to experience more and more development pressure, especially as development in Johannesburg moved further outward. The Muldersdrift Spatial Development Strategy of 1997 identified various land use zones to on the one hand accommodate development pressure and on the other hand preserve the rural character of certain parts of this area. The Muldersdrift area is probably the area that will in future experience the greatest level of conflict between various planning and development agencies. One the one hand this area lies directly in the path of development while on the other hand it falls outside the 2007 Urban Edge demarcated by Gauteng Province. The area to the west of the N14 also falls inside the new proposed buffer zone which has been drawn around the Cradle of Humankind World Heritage Site.
- ✓ The area around **Lanseria Airport** on Mogale City's side is currently still considered to be rural in nature. However, the City of Johannesburg has demarcated this area as a major new industrial, mixed-use and residential node, and the provincial government is also looking at a major development initiative (named the Lanseria Aerotropolis) around the airport. The energy resulting from this initiative will create pressure for development on Mogale City's side.
- ✓ The Hekpoort, Magaliesburg and Tarlton areas experience very little development pressure as such. However, one of the aspects that do place pressure on these areas are the existence of informal settlements around these towns, which means that pressure begin to emerge for the formalisation of these informal settlements into formal

townships. A number of housing initiatives are already underway in these areas which in turn require the development of supporting social facilities.

A spatial representation of all recent development applications in Mogale City shows a clear concentration of developments around the following areas:

- ✓ In Muldersdrift around the Muldersdrift Node (the Drift).
- ✓ In the vicinity of the intersection of Hendrik Potgieter Road and the N14.
- ✓ In the vicinity of the intersection of Robert Broom Drive and the R28.

CONSTRAINTS TO SPATIAL DEVELOPMENT

The following main constraints exist in Mogale City that has an impact on the spatial structure and the development potential of the municipality:

- ✓ The central part of Mogale City is characterised by a band of **dolomite** that runs roughly in a south-west/north-east direction through the municipality. These dolomite areas are the natural feature that gave rise to the cave formations that led to the creation of the Cradle of Humankind World Heritage Site.
- ✓ The **Gauteng Urban Edge, 2007** has been drawn conservatively around existing urban areas, and virtually no provision has been made for urban expansion.
- ✓ The **Cradle of Humankind** affects relatively small parts of Mogale City, and as such does not place a significant constraint on urban development and land use in Mogale City. However, the proposed new buffer zone around the Cradle of Humankind covers a large part of Mogale City, and therefore begins to place a constraint on the development potential of the area. As the Environmental Management Framework for this area has not yet been completed, there is no indication of the nature or intensity of land uses that will be permitted in the buffer zone and hence the exact impact on development potential is uncertain.
- ✓ **Natural elements** such as mountains, ridges, rivers and conservation areas are constraints to physical development in the sense that linkages between developments are often broken by the natural elements. However, the existence of the natural elements in the area are a positive spatial characteristic of the area, and ways must be found to accommodate and protect these while at the same time finding the most efficient and sustainable solution to urban development.
- ✓ The **mining belt** (including the radiation levels and environmental buffer zones) that runs through the south-eastern part of Mogale City poses a constraint for the functional integration of the urban areas on either side thereof. More particularly, because the areas to the south are predominantly disadvantaged areas and the areas to the north are the established urban areas of Krugersdorp, the mining belt poses a constraint to socio-economic urban integration
- ✓ The **availability of engineering services** in the Muldersdrift and Lanseria area will prevent any development in the short to medium term, depending on when major engineering infrastructure investment take place in this area.

SPECIALISED ACTIVITY AREAS

Specialised activity zones are those areas that cater for a specific land use type that is not necessarily found in or considered desirable as part of mixed-use activity areas such as nodes and activity spines. Examples of specialised activity areas include industrial areas, educational campuses, larger institutional complexes, large sport and recreational complexes and any other economic or social activities that require large specialised areas.

In Mogale City, the following industrial areas exist:

- ✓ Chamdor
- ✓ Boltonia
- ✓ Factoria
- ✓ Delporton
- ✓ Fariaville

The existing industrial areas should be intensified before new expansion is permitted. In order to attract new development and encourage the renewal of existing development, the municipality should focus on urban renewal programmes in the existing industrial areas. Once these areas are fully and optimally developed, the industrial areas can expand if land is available.

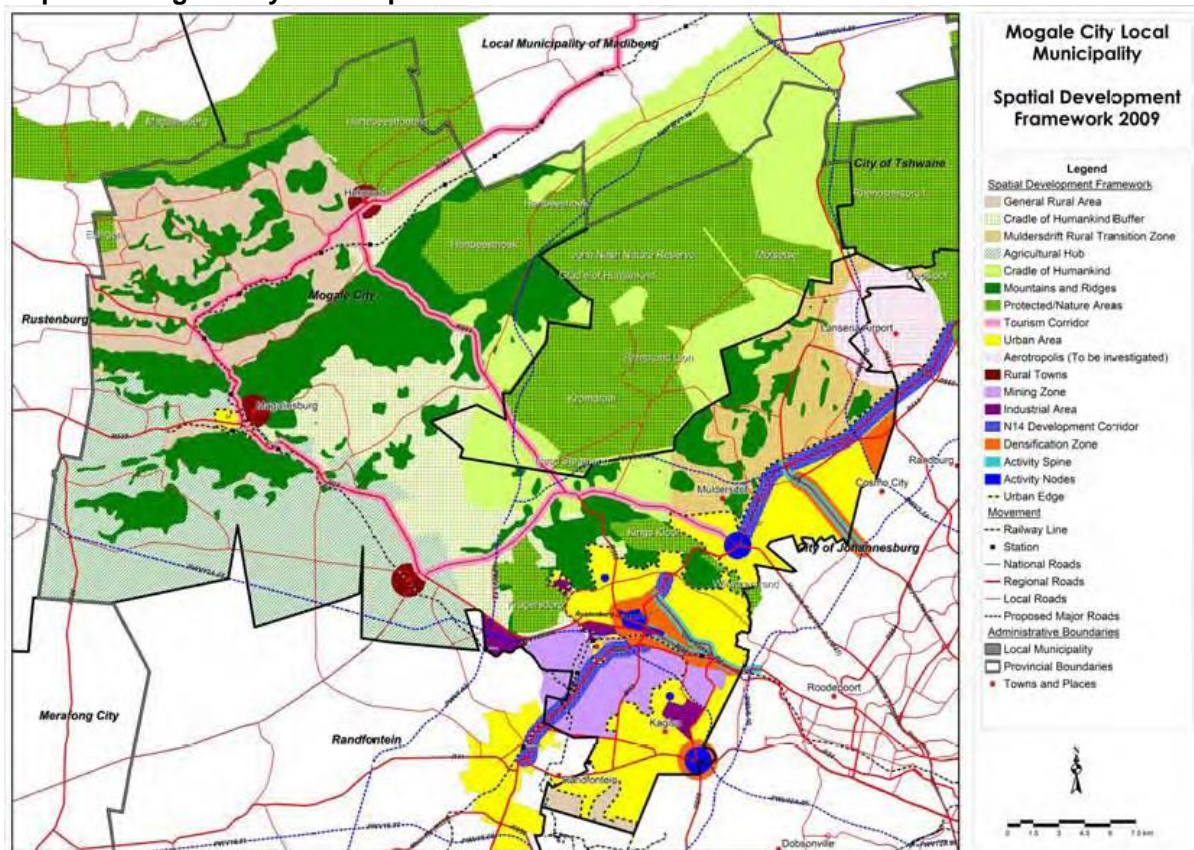
The following new specialised industrial areas are proposed:

- ✓ The area around the Lanseria Airport as part of the Lanseria Aerotropolis development. The nature of the industrial development in this area should be determined by an Urban Development Framework for the Aerotropolis, but should not include noxious industries.
- ✓ High tech, clean-industrial development can take place along the proposed N14 Development Corridor.

The following guidelines apply to developments in the industrial areas:

- ✓ The focus should be on industrial land uses, warehouses and commercial uses such as transport depots.
- ✓ Small scale storage facilities that are typically found in the more rural areas should be located in the industrial areas.
- ✓ Supporting facilities, such as convenience shops, restaurants / canteens, support businesses (such as printers, stationers, day-care and banks), can be provided within the industrial area, provided that the scale of such a development is restricted to that of an ancillary use that does not and will not attract the general public.
- ✓ Offices shall be restricted to administrative offices belonging to or directly linked to the activities established in the area.

Map 4.33: Mogale City SDF Map



Identified Development Sectors

The Mogale City Spatial Development Framework identified the following main sectors for future development / expansion:

- ✓ Agriculture
- ✓ Tourism
- ✓ Industrial

4.4.3 RANDFONTEIN SPATIAL DEVELOPMENT FRAMEWORK

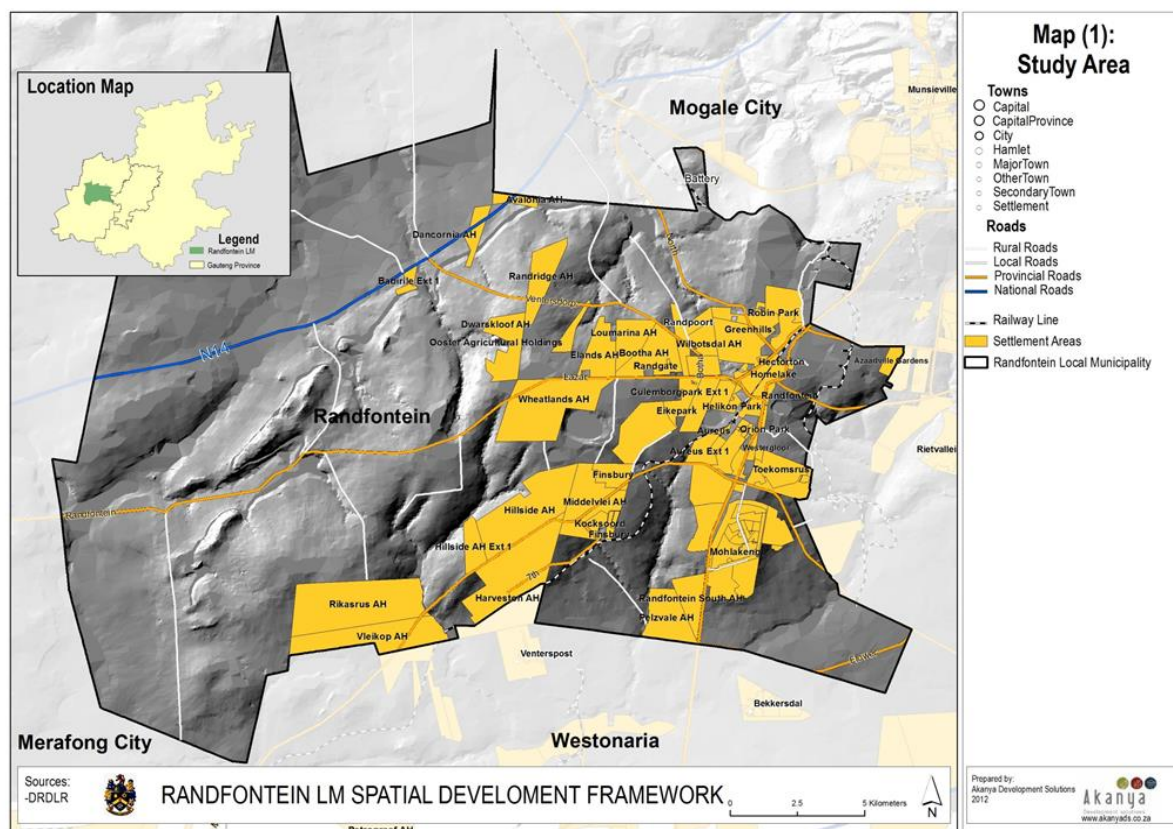
The Randfontein Local Municipality is located at the centre of the West Rand District Municipality and is surrounded by three other Local Municipalities namely: Merafong City, Westonaria and Mogale City. Randfontein Local Municipality (RLM) is part of the Gauteng Province and is one of the four local municipalities within the West Rand District Municipality. The Randfontein area is predominantly rural in nature and covers a total area of 478 km². The area is characterized by vast tracts of commercial farming land, old mine quarries and mine dumps, and industrial land parcels. The RLM comprises of the following settlements: Randfontein CBD and residential areas, Mohlakeng, Toekomsrus, Badirile, and agricultural holdings. The RLM is characterized by a declining mining economy resulting in high levels of unemployment and poverty, but remains an important service centre for the wider region.

The Department of Rural Development and Land Reform (DRDLR) commissioned the formulation of a reviewed SDF for the area. The new SDF will also include two precinct plans that will be formulated concurrently to the overall SDF, i.e. the Uncle Harry's and Badirile precinct plans

The RLM is faced with unique development challenges in that it is highly reliant on mining and mineral assets, but lacks end line economies to diversify the mining industry. In addition, the mining assets are highly compromised by the declining mining sector. In this context, the

RLM has specific coordination and facilitation responsibilities which need to be addressed in an innovative way to initiate and promote local development and to attract investment.

Map 4.34: Randfontein Local Municipality



REGIONAL CONTEXT

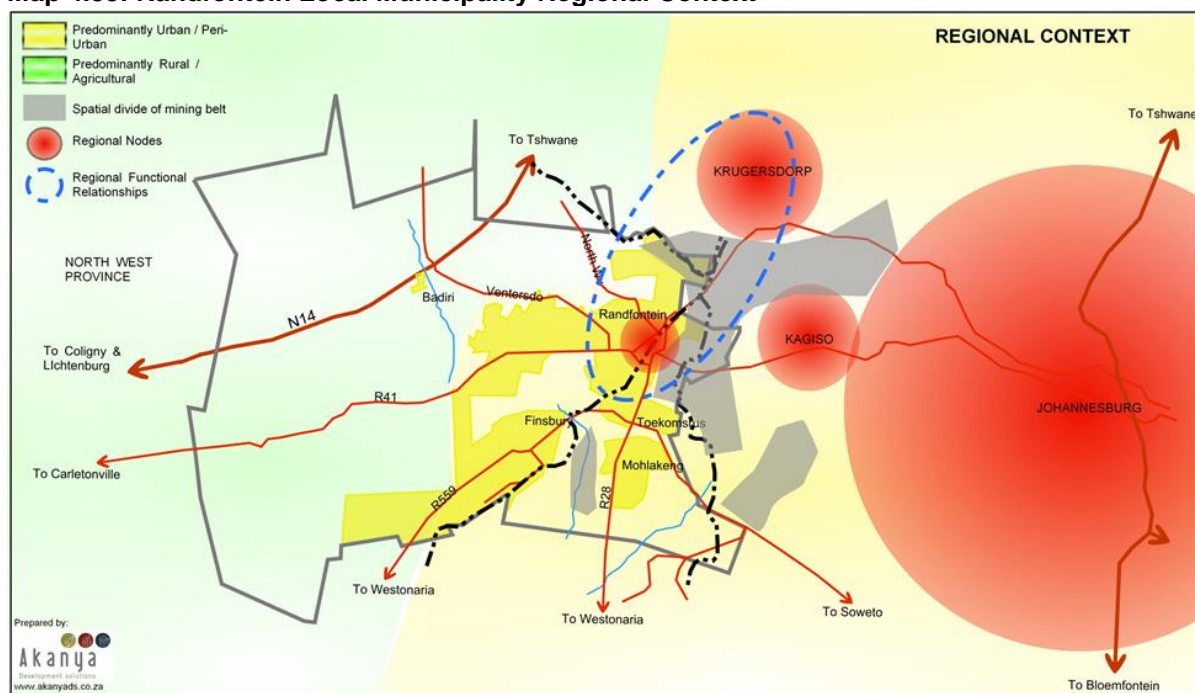
Randfontein Local Municipality covers a total area of 442.4 km², and is the smallest LM in the West Rand District Municipality (WRDM). The district includes three other local municipalities, namely Mogale City, Westonaria and Merafong City. The Cradle of Humankind World Heritage Site is also included in the district area.

The location of the RLM is adjacent to the North West Province which makes it more prone to immigration from this province. A large portion of the RLM consists of natural open spaces and agricultural lands, which is similar to land uses in the part of Merafong City abutting it to the west. The main urban areas within the RLM include Randfontein CBD and the residential area to the west of the CBD which forms a great part of the Randfontein urban area. The Randfontein urban area is located on the eastern portion of the municipality surrounded largely by mines. The development of the District can be attributed to the gold mining activities associated with the mining reef extending from the Johannesburg area. The main economic driver for the district at the time of the establishment was the gold mines, establishing a functional link with the greater Johannesburg area from inception. The West Rand District has maintained this functional link as its strong development pull towards the metropolitan areas of Johannesburg.

The spatial interface between the City of Johannesburg and the RLM a poverty band made out of the Soweto, Kagiso, Leratong, Rietvalley and Simunye townships. This band also constitutes the mining belt with a number of developmental challenges, including a decline in economic activity, but at the same time provides employment for people as far away as the Soshanguve complex in the north of Tshwane. This mining belt also forms a physical barrier

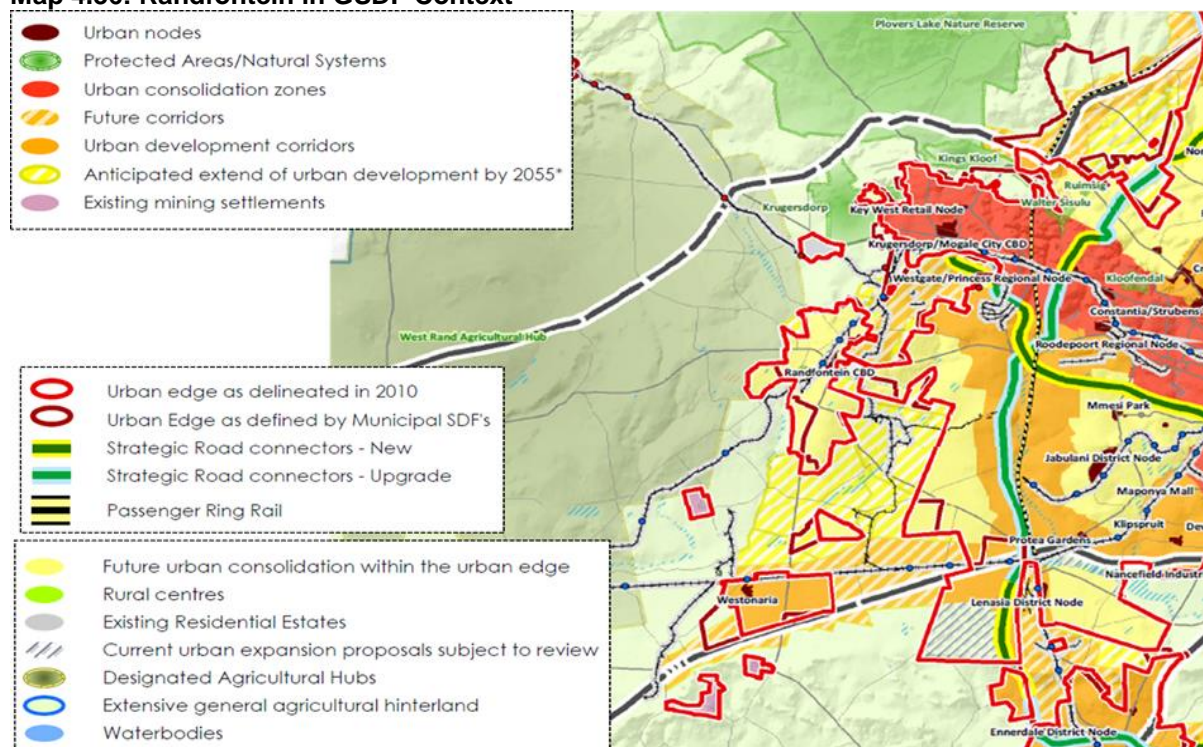
between the RLM and Mogale City, making the RLM less accessible to opportunities presented by regional development associated with e.g. Lanseria International Airport and the Cradle of Humankind World Heritage Site.

Map 4.35: Randfontein Local Municipality Regional Context



Viewed in a regional context, the RLM is located on the edge of the Gauteng economic core, abutting a major poverty belt on the west side of the core area. Its integration with the core area and Mogale City is relatively weak due to the mining belt forming a spatial divide, as well as a lack of strong east-west mobility spines. It makes a small contribution to the overall provincial economy, and is home to an equally small part of the provincial population.

To give a spatial dimension to its strategic vision, the Gauteng Spatial Development Framework (GSDF) 2011 has been developed. The GSDF identifies the RLM area to have a moderate agricultural potential, and a part of the West Rand Agricultural hub is located in the RLM (on the western side). The GSDF has also identified Randfontein as an area for future urban consolidation. The RLM in the context of the GSDF is indicated below.

Map 4.36: Randfontein in GSDF Context

MOVEMENT NETWORK

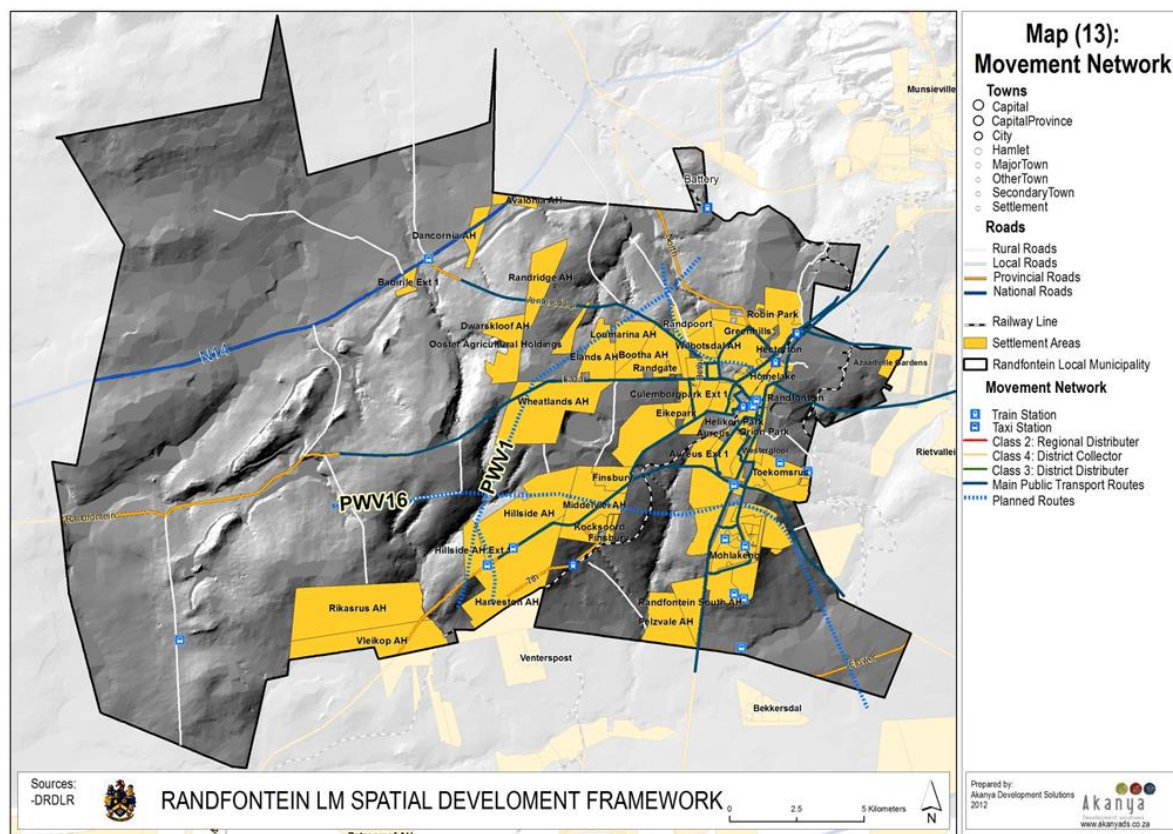
The east-west regional accessibility is provided mainly by the N14, R41 road network linking the RLM with the metropolitan areas of Johannesburg to the east and the more rural area of Potchefstroom and Rustenburg to the west. There is a weak north south linkage, as the only north-south link is provided by the R28 which provides local accessibility but not regional accessibility. The R28 as the main north-south linkage serve both a regional mobility and local accessibility function.

The linkages to Randfontein and the West Rand as a whole are poor as no high mobility corridor exists between the East (Johannesburg) and the West Rand.

In order to increase internal- and external accessibility and convenience to Randfontein, the following is proposed:

- ✓ That the District Spatial Development Framework addresses the linkages of road and rail within the West Rand and Gauteng Province;
- ✓ That through traffic along the R28 between Mogale City and Westonaria LM through Randfontein be improved;
- ✓ That the Randfontein / Naledi Rail Link be investigated and implemented;
- ✓ That the Station Street Taxi intermodal transport facility be managed;
- ✓ That an activity node (intermodal facility) be established at the intersections of R28 and the Zuurbekom Road; and R28 and the R198 Road.

Map 4.37: Randfontein Local Municipality Movement Network



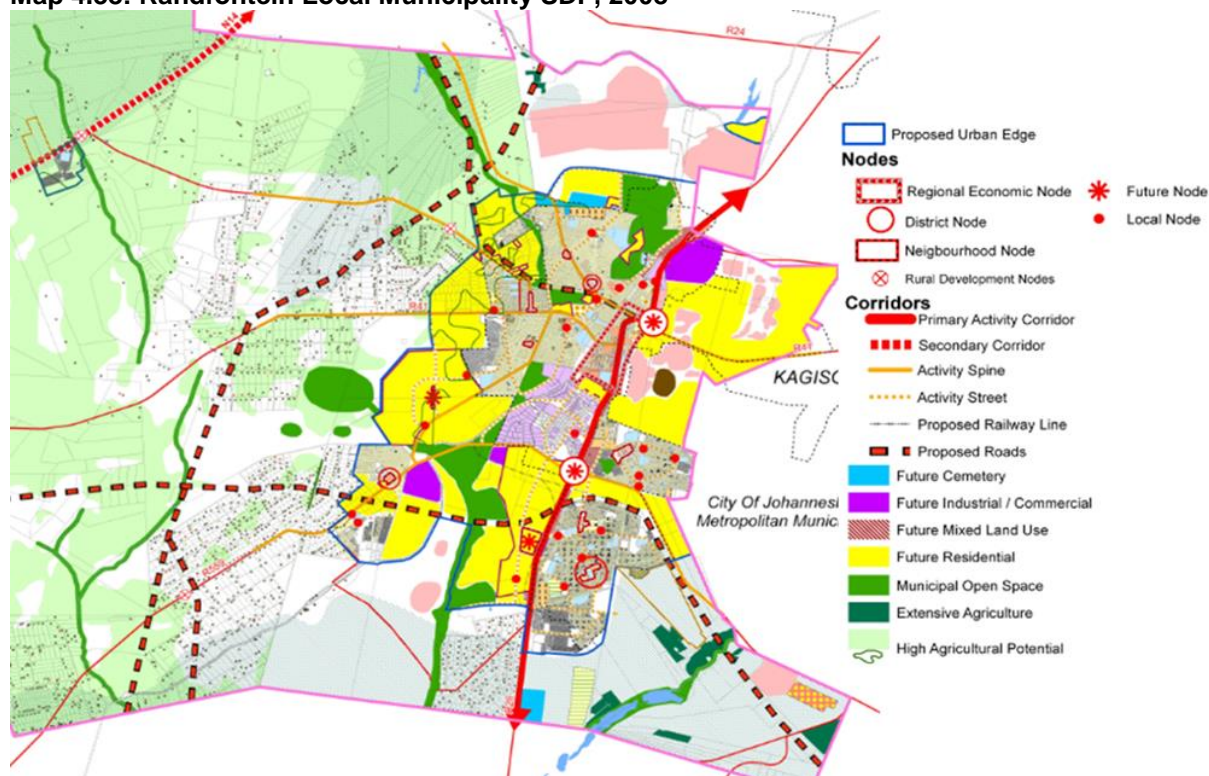
SPATIAL ANALYSIS: PATTERNS AND TRENDS

The Spatial Development Strategy is the manifestation of various trends and guiding principles, which include:

- ✓ The diversified nature of urban development;
- ✓ Unsuitable geo-technical conditions which hamper spontaneous urban development;
- ✓ Land ownership which is primarily vested with mining / private landowners;
- ✓ Large land areas that relate to agricultural development;
- ✓ The relatively poor accessibility to and from Randfontein;
- ✓ The lack of diversified economic conditions;
- ✓ Large rural residential areas that hampers spontaneous development;
- ✓ The huge housing backlogs; and
- ✓ Sensitive environmental areas.

In terms of spatial planning, the current SDF (2008) indicates as series of nodes and infill areas, as well as an urban edge to manage and counter sprawl. The main strategic thrust is to focus on infill development, in a way that consolidates the current dispersed urban structure in the eastern part of the RLM area.

Map 4.38: Randfontein Local Municipality SDF, 2008

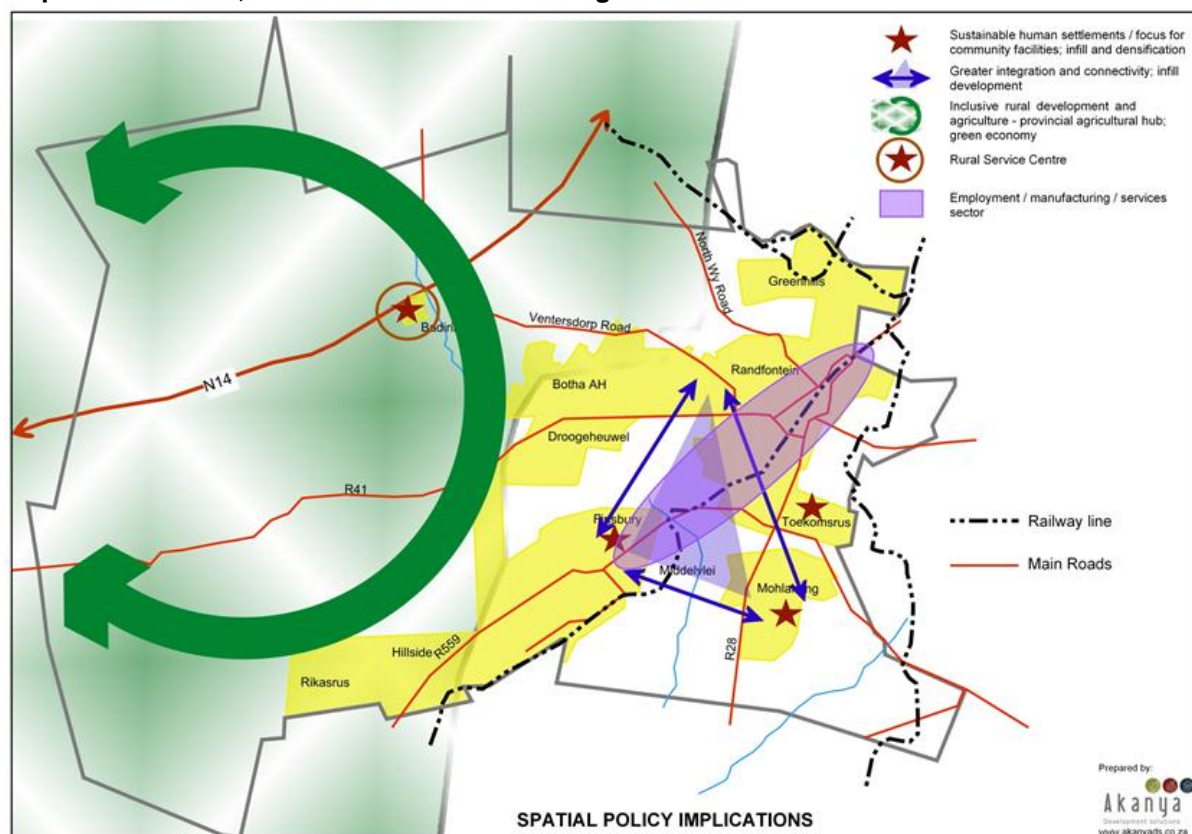


SPATIAL CONTEXTUALISATION OF NATIONAL, PROVINCIAL AND LOCAL STRATEGIC DIRECTION

Inclusive rural development and the strengthening of agriculture are essential in the rural part of the RLM. Initiatives such as the Comprehensive Rural Development Programme (CRDP) should be optimised and Badirile should be strengthened as a rural service centre. The main challenge in the urban part of the RLM is integration and the development of marginal areas as fully fledged sustainable human settlements. Employment creation, inclusive of manufacturing and further diversification of the economy to decrease reliance on mining, should be pursued in the central parts of the urban area, ensuring accessibility.

The spatial implications of the national, provincial and local strategic directions are indicated in the map below.

Map 4.39: National, Provincial and Local Strategic Direction



ENVIRONMENTAL CONSIDERATIONS FOR SPATIAL PLANNING

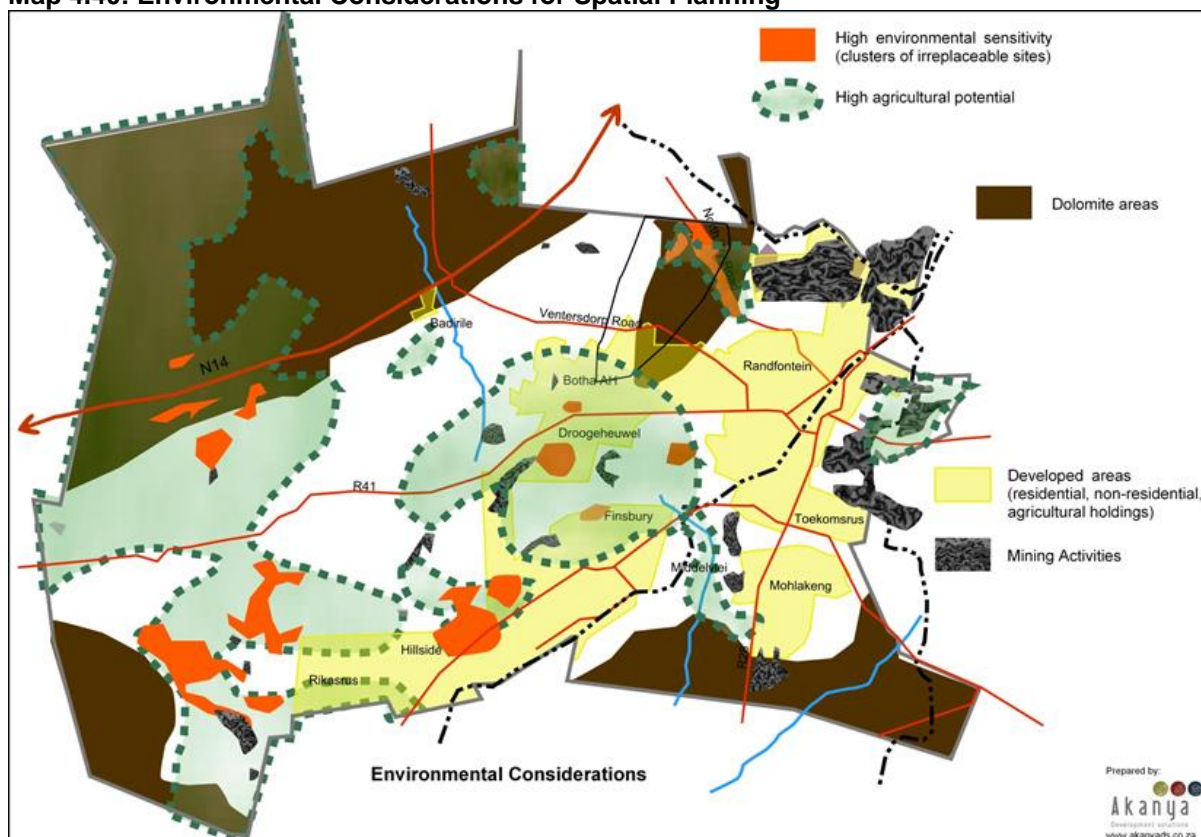
High potential agricultural land is located mostly in the western and southern / central parts of the RLM, with the concentration on mining activities on the eastern side. In most cases environmentally sensitive areas are located within areas of high agricultural potential, implying that agricultural practices should be managed so as to protect endangered species and irreplaceable sites. This also highlights the urgent need for more sites in the RLM to be officially protected. Topography is not a major impediment to either urban development or agriculture in the area. It is critical that cognisance should be taken of dolomitic conditions and the risk for development inherent to such areas. A large part of the RLM is affected by dolomite.

SOCIO-ECONOMIC CONSIDERATIONS FOR SPATIAL PLANNING

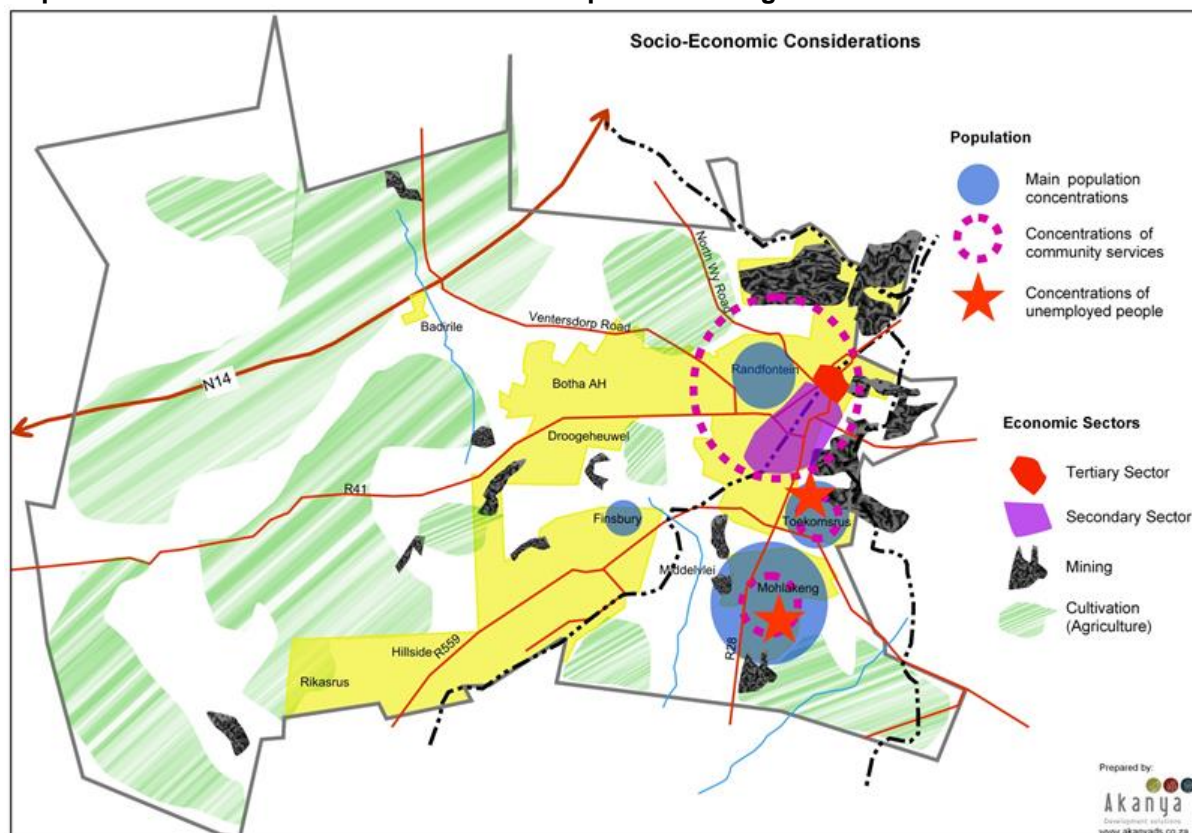
Economic development and population are concentrated in the eastern part of the RLM. The major population concentrations occur in Mookeng, Toekomsrus, and the core area of Randfontein. The biggest concentration of community services is in Randfontein, with small numbers of services in Mookeng and Toekomsrus. The majority of unemployed reside in Mookeng and Toekomsrus.

The spatial distribution of economic sectors is very defined in the RLM, with sectors located in specific, distinguishable precincts. The key employment sectors (tertiary and secondary) are mostly located in Randfontein, with the majority of mines in the mining belt on the far eastern side of the RLM, and existing agriculture mostly on the western side of the RLM.

Map 4.40: Environmental Considerations for Spatial Planning



Map 4.41: Environmental Considerations for Spatial Planning

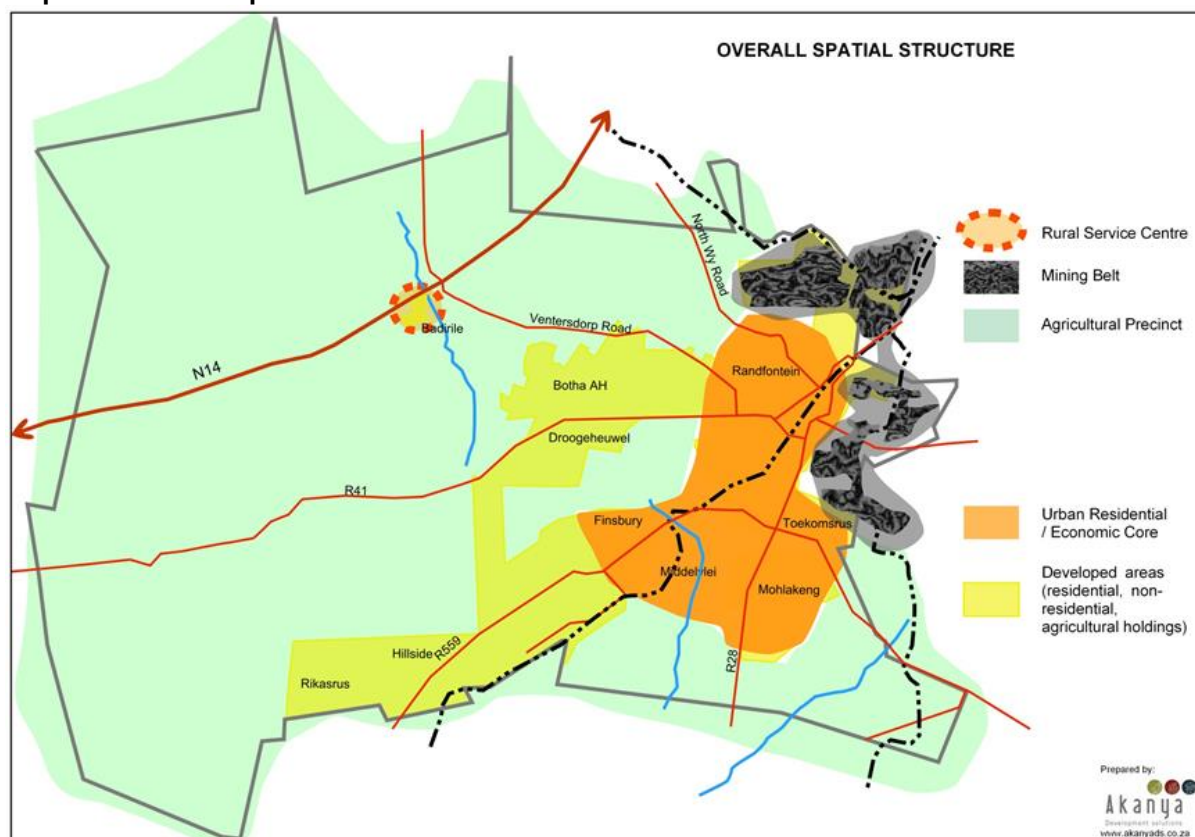


SPATIAL STRUCTURE

In terms of overall spatial structure, the RLM has three distinct separate precincts: *the urban residential and economic core, the mining precinct and agricultural land*. The west of the RLM is characterized by extensive farmland and agricultural holdings containing a residential node known as Badirile.

The Randfontein urban complex is located in the eastern part on the municipality, which is the area around the Randfontein CBD and is bordered by middle and high income residential developments on the north western part. To the south of the Randfontein CBD is the industrial area, followed by the residential developments of Toekomsrus and Mohlakeng further towards the south eastern part of the municipality. There are fairly large vacant areas to the south-west of Greenhills, the Randfontein CBD and the Randfontein industrial area which could be potentially used for future residential development. The far eastern precinct of the RLM mainly consists of mining land and covers the area between the Randfontein CBD and Azaadville. The area to the south and south-east of Mohlakeng up to Doornkop comprises of extensive agricultural use and due to dolomite problems, it is not suitable for any alternative land use.

Map 4.41: Overall Spatial Structure



In terms of current land use, a number of distinct areas can be identified:

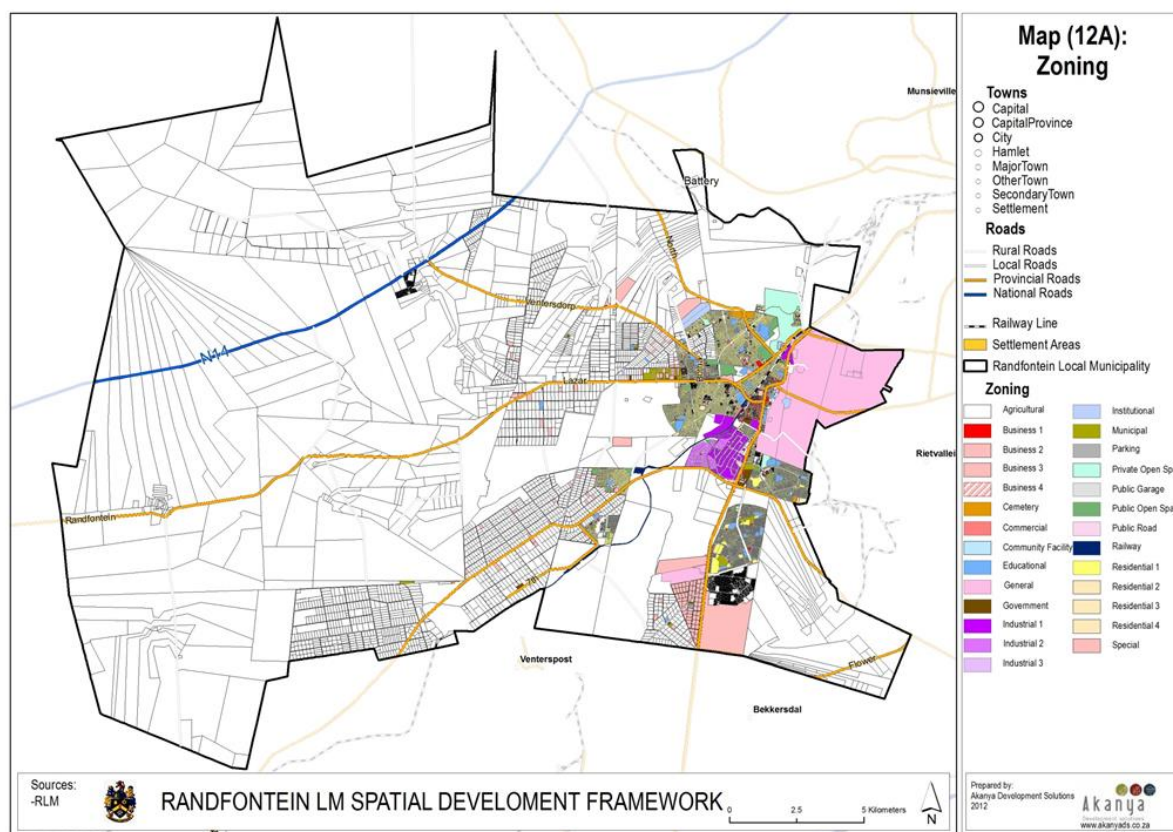
- ✓ The Randfontein CBD which is the main business nodes in the RLM, located around the intersection of the R41 and R28.
- ✓ Established residential suburbs surrounding the CBD to the west and north
- ✓ Industrial precinct to the south of the CBD
- ✓ Mining land to the east of the CBD and between the RLM and Mogale City
- ✓ High density, previously disadvantaged residential areas to the south of the CBD.

- ✓ A band of agricultural holdings to the south and east, flowing into agricultural areas in the remainder of the RLM
- ✓ A developing rural service node (Badirile) located in the agricultural area along the N14.

Issues still exist regarding the integration of the settlements that comprise the urban core area, and developing the dense urban settlements on the periphery into fully fledged sustainable human settlements (e.g. Toekomsrus, Mohlakeng and Finsbury). The RLM has identified some of the key issues to take into account in the development of sustainable human settlements:

- ✓ The level of participation by community members and the manner in which stakeholders are consulted in the area
- ✓ The promotion of a broad range of housing types, pricing levels and densities in urban areas
- ✓ The presence of a mix of uses available to support daily life i.e. employment, recreation & retail
- ✓ Whether or not the settlements are connected to regional transportation networks, land uses and open spaces
- ✓ The existence or not of an interconnected network of streets and open spaces
- ✓ The level of service provision in relation to the locality and development context of the settlement.

Map 4.42: Randfontein Local Municipality Zoning Map



DEVELOPMENT PRESSURE

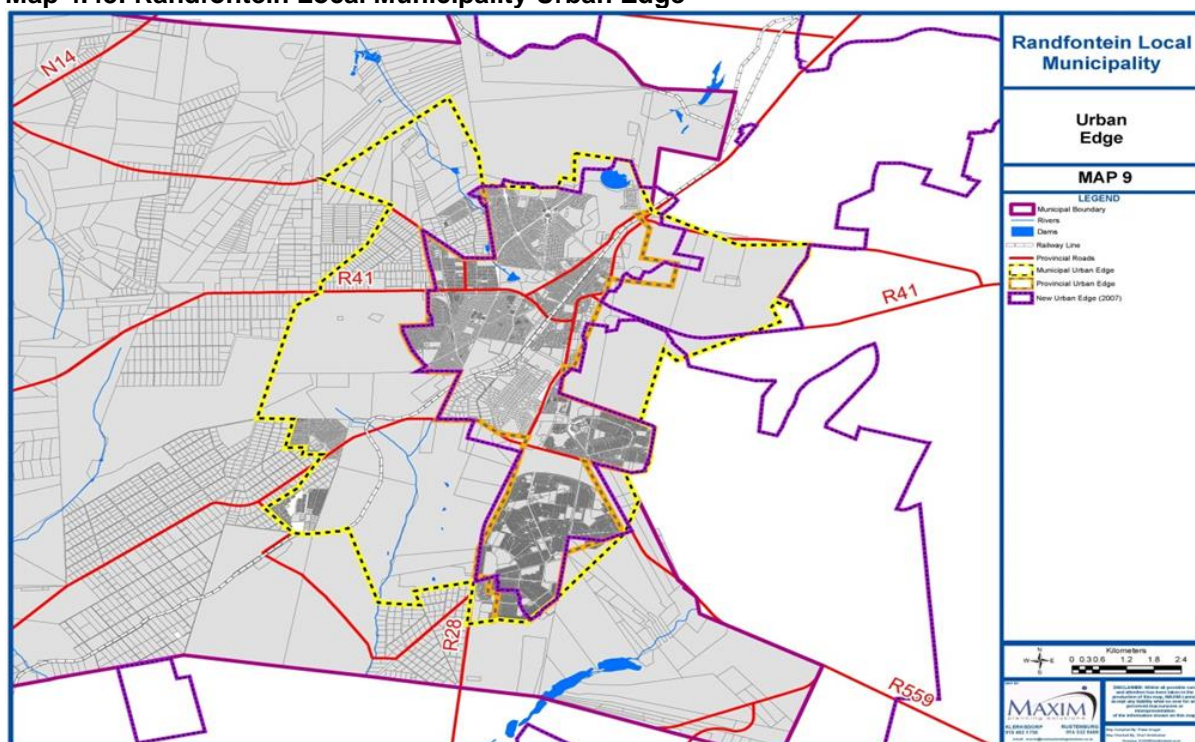
In terms of development trends, Randfontein is to an extent functionally linked to Mogale City urban complex via the R28, although the presence of mining activities ensures a degree of spatial separation between the two urban masses. The areas between Randfontein and Mogale City are also experiencing densification and infill development, with low income

residential development extending from Mogale City in a south westerly direction towards Randfontein. This expansion is however being curbed by the existence of large tracts of land of mining and related land. Development in the area is fragmented largely as a result of tracts of land not suited for development in these areas, as well as the fact that mining settlements are located close to the mines that they serve.

Agricultural areas adjacent to the urban areas are experiencing pressure to change from agricultural land use to non-agricultural uses such as residential or commercial.

The current RLM SDF (2008) contains an urban edge (indicated in yellow line on the figure below, as opposed to the purple line which as the old Gauteng urban edge). The Gauteng Provincial Government rescinded their urban edge in late 2011, but this does not preclude local municipalities to implement an urban edge. In the case of the RLM, this would be a useful tool to encourage infill development rather than outward sprawl.

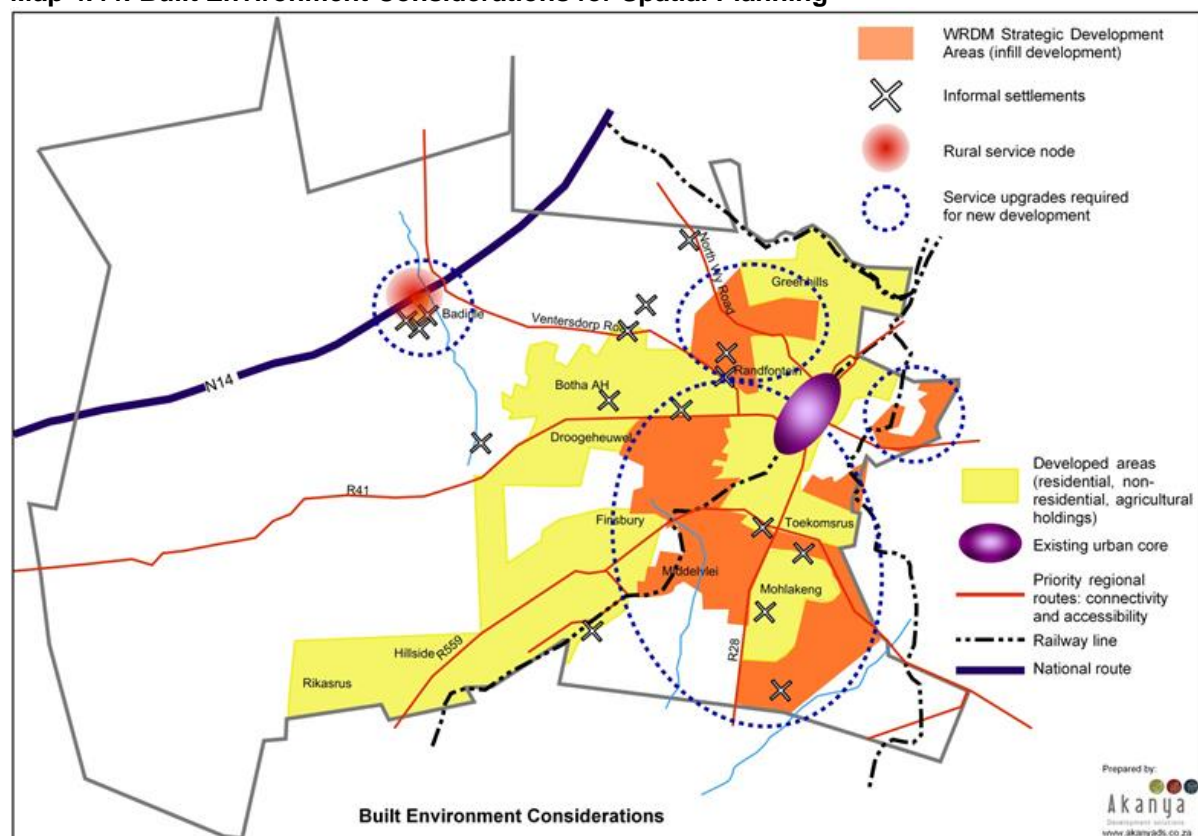
Map 4.43: Randfontein Local Municipality Urban Edge



BUILT ENVIRONMENT CONSIDERATIONS FOR SPATIAL PLANNING

Built-up areas of the RLM are located on the eastern side of the area. The existing core area includes the Randfontein CBD and industrial area. Strategic development areas have been identified for settlement development, focussing on infill development rather than sprawl. This is to address housing backlog and the informal settlements scattered throughout the RLM. The only potential rural service node in the RLM is Badirile.

Map 4.44: Built Environment Considerations for Spatial Planning



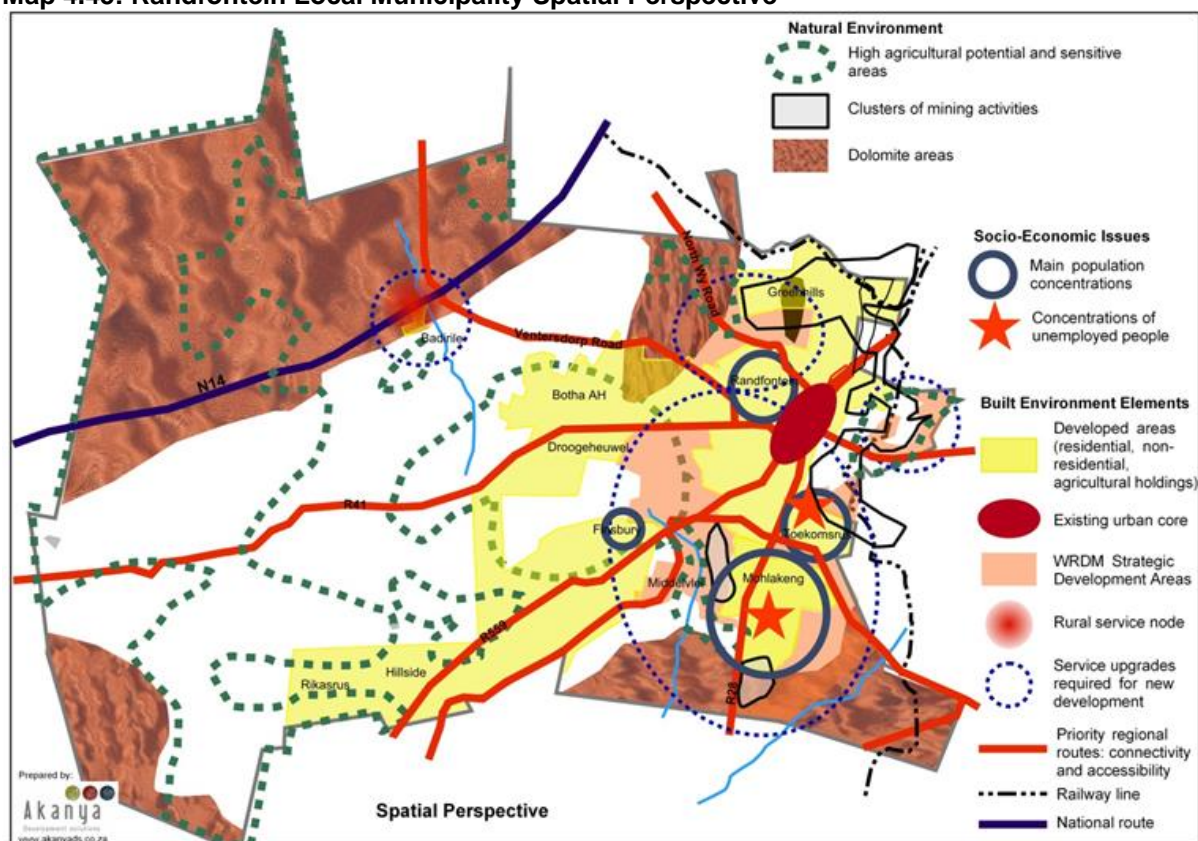
SPATIAL SYNTHESIS AND POTENTIAL

The key issues and trends emanating from the analysis of the status quo can be summarised as shown on the map below.

The following can be highlighted:

- ✓ Randfontein is the dominant core in all respects (economy, community services and population).
- ✓ The uni-city concept needs to be further defined by putting more emphasis on the development of the CDD as the high order, high density node.
- ✓ The highest potential for future economic growth is in the urban core, Mohlakeng and Toekomsrus as well as in the two strategic precincts (Badirile and Uncle Harry's).
- ✓ Local economic node in major settlement is promoted in order to support communities that are located further away from the CBD.
- ✓ The other two settlement areas are isolated and have limited economic activity and small populations.
- ✓ Areas of high potential agricultural land occur on the north western and southern patches.
- ✓ The R41, R28 and N14 are the most prominent routes for both regional mobility and accessibility.

Map 4.45: Randfontein Local Municipality Spatial Perspective



CONCEPTUAL FRAMEWORK

The conceptual framework indicates the most important element of the development concept for Randfontein, based on the key spatial dimensions of the above objectives and strategies. It is presented at two levels. Firstly, the overall framework indicated the key structuring elements of the municipal area as a whole. Secondly, the core urban area and well as the rural service node is shown at a greater level of detail. The conceptual framework contains the following elements:

Structuring Elements:

- ✓ **Primary Service and Employment Nodes:** Randfontein CBD, Aureus Industrial Area, smaller mixed use areas.
- ✓ **Central Corridor:** Area include the above primary service and employment nodes located along R28, as well as smaller high intensity mixed use areas; no direct access onto R28; including Uncle Harry's precinct.
- ✓ **Open Space Network:** Including bird sanctuary and water bodies.

Movement Network:

- ✓ **Regional Mobility Routes:** primary function is mobility / connectivity across region, includes North Way, Ventersdorp, Randfontein, Homestead, Greenhills / Horingbek / Condor, Kenneth, R41 (Lazaar / Tambotie / Van Riebeeck), R559 Main.
- ✓ **Secondary Activity Corridors:** concentration of low scale mixed use activity along section of some of the mobility routes, but direct access limited / controlled to preserve mobility function.
- ✓ **Activity Streets:** mixed uses along road, direct access.
- ✓ **Proposed new links:** establishment of grid pattern main roads in infill areas to enhance connectivity and integration.
- ✓ **Railway line:** Important aspect of movement network; freight transport.

Infill Development Precincts:

- ✓ Middelvillei – to the west of the R28 opposite Mohlakeng.
- ✓ Droogeheuvel – South of the R41, west of Arend Road.
- ✓ Greater Finsbury – to the east of Finsbury and Koksoord, to the west of the railway line.
- ✓ Greater Toekomsrus – to the north and south of Toekomsrus.
- ✓ Mining precinct – to the east of existing mining activities, north and south of the R41.

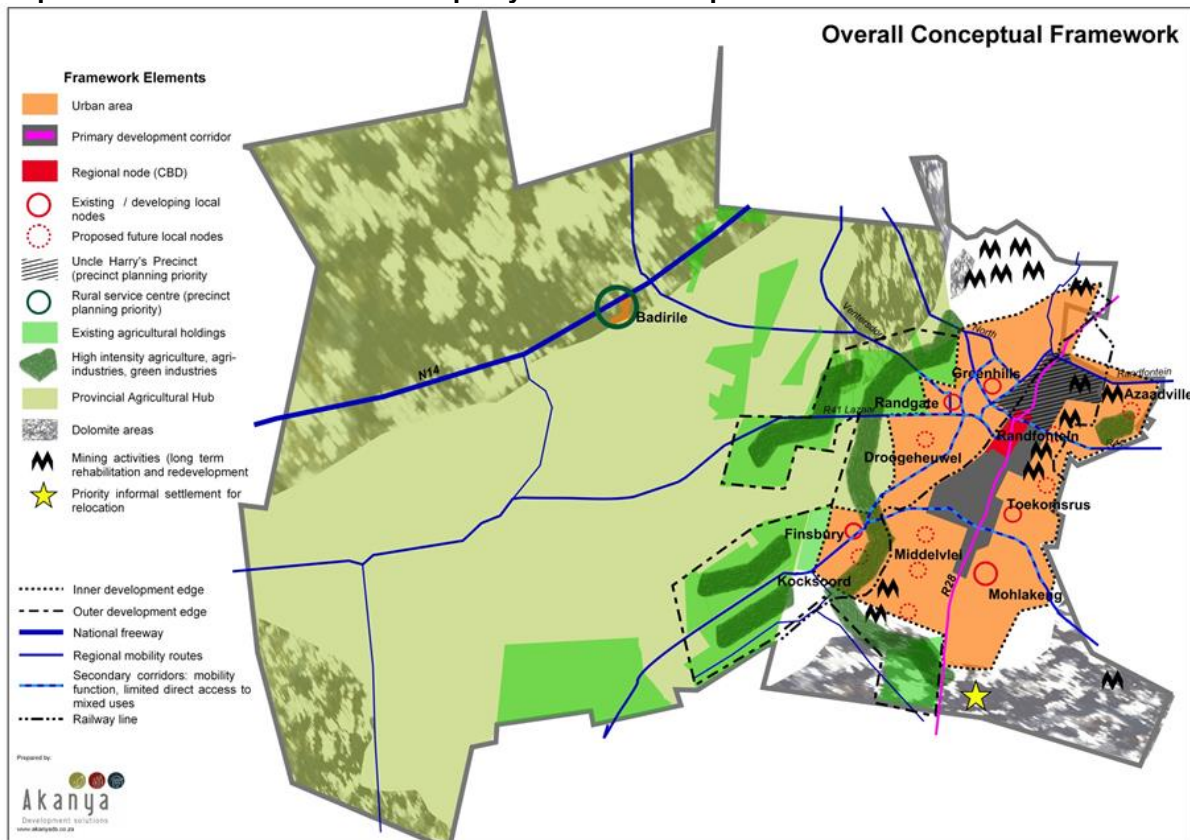
Growth Management Mechanisms:

- ✓ *Inner development edge*: limit of urban development
- ✓ *Outer Development Edge*: intensive agriculture, agri-industries, green industries.

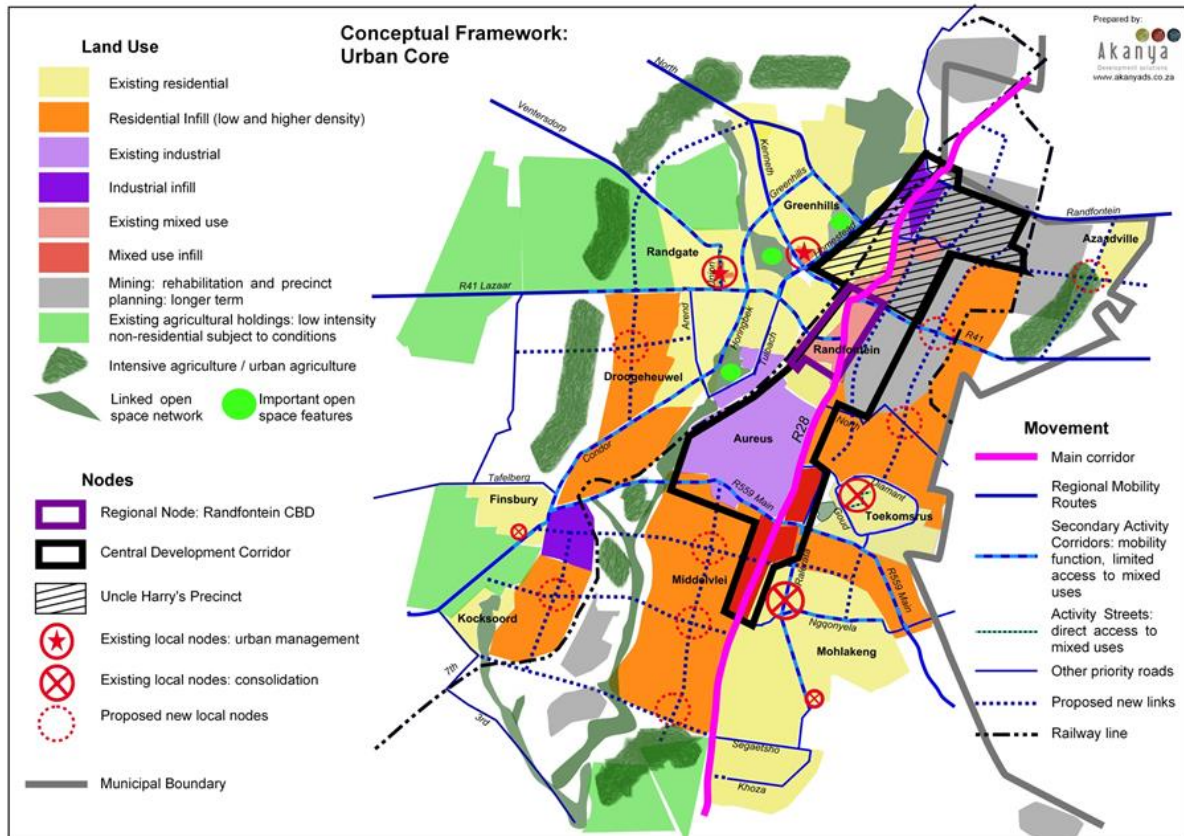
Urban Service Centres / Nodes:

- ✓ *Existing nodes to be managed*: Randfontein CBD, Randgate, Greenhills
- ✓ *Existing to be consolidated*: Mohlakeng, Toekomsrus,
- ✓ *New*: Finsbury/Kocksoord, Droogeheuvel, Middelvillei

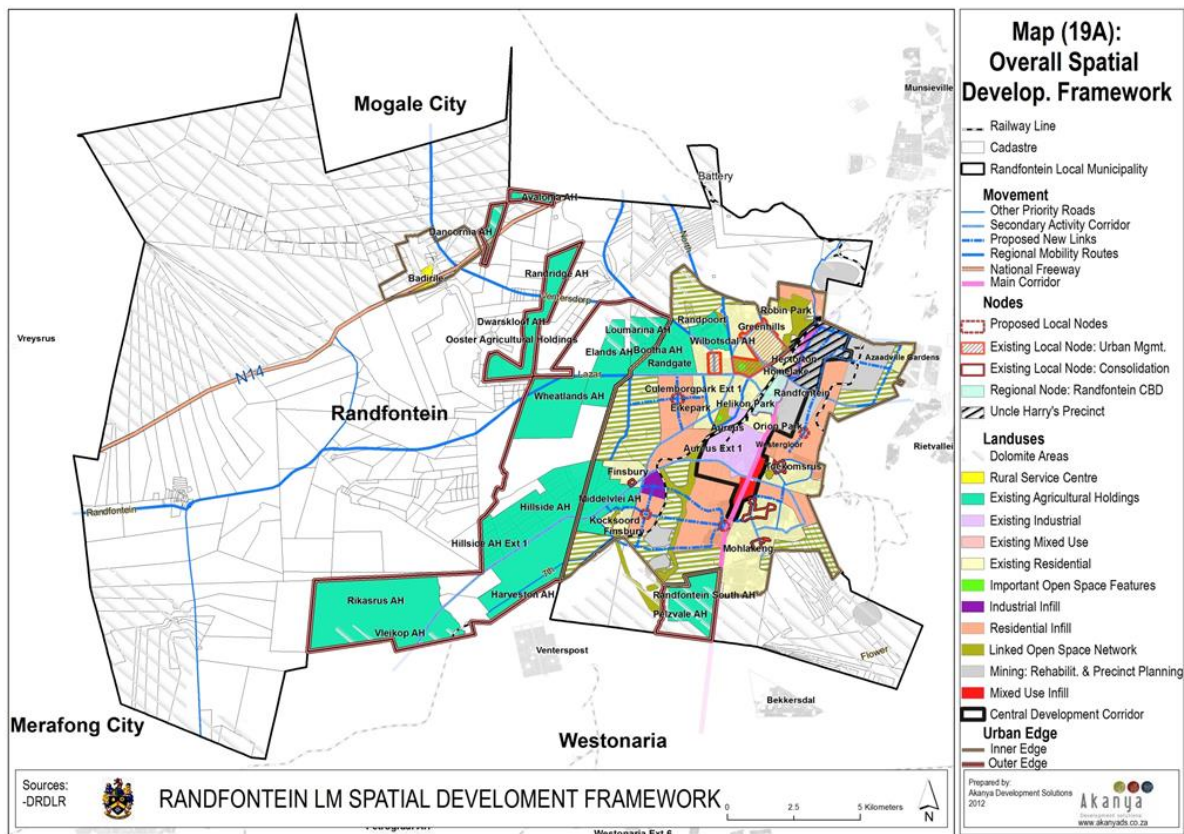
Map 4.46: Randfontein Local Municipality Overall Conceptual Framework



Map 4.47: Randfontein Local Municipality Overall Conceptual Framework - Urban Core



Map 4.48: Randfontein Local Municipality Overall Spatial Development Framework



Identified Development Sectors

The Randfontein Spatial Development Framework identified the following main sectors for future development / expansion:

- ✓ Agriculture
- ✓ Infrastructure

4.4.4 WESTONARIA SPATIAL DEVELOPMENT FRAMEWORK

To be provided by West Rand District municipality.

4.5 SYNTHESIS

The above policy framework analysis identified the main economic sectors highlighted by the different policy frameworks for future development. The tables below is a summary of the different sector identified by each policy document as sectors for future development focus.

Overall the national, provincial and local policies are in line in terms of the sectors identified for future development. The dominant sectors on a macro, meso and micro level include:

- ✓ Manufacturing
- ✓ Agriculture (Agro-processing and related entities)
- ✓ Tourism
- ✓ Green / Smart / Innovation industries

Table 4.20: National Policy Alignment Summary

Macro Policies – National Policy Framework	National Spatial Development Perspective	National Development Plan: Vision 2030	National Growth Path
	<ul style="list-style-type: none"> ✓ Innovation and experimentation ✓ Production of high value, differentiated goods (not strongly dependent on labour) ✓ Production of labour-intensive, mass-produce goods (more dependent on labour costs and / or on natural-resource exploitation) ✓ Public services and administration ✓ Retail and private-sector services ✓ Tourism. 	<ul style="list-style-type: none"> ✓ Economy and Employment ✓ Economic infrastructure ✓ Environmental sustainability and resilience ✓ Inclusive rural economy ✓ South Africa in the region and the world ✓ Transforming Human Settlements ✓ Improving education, training and innovation ✓ Health care for all ✓ Social protection ✓ Building Safer Communities ✓ Building a capable and developmental state ✓ Fighting corruption ✓ Nation building and social cohesion 	<ul style="list-style-type: none"> ✓ Infrastructure development ✓ Agriculture ✓ Mining ✓ Manufacturing ✓ Green economies
	Industrial Policy Action Plans		
	<p>Cluster 1 – Qualitatively new areas of focus:</p> <ul style="list-style-type: none"> ✓ Metal fabrication, capital and transport equipment sectors ✓ Upstream Oil and Gas ✓ “Green” and energy-saving industries ✓ Agro-processing ✓ Boatbuilding <p>Cluster 2 – Scaled-up and broadened interventions in existing IPAP sectors:</p> <ul style="list-style-type: none"> ✓ Automotive products and components, ✓ Plastics, pharmaceuticals and chemicals ✓ Clothing, textiles, footwear and leather ✓ Biofuels ✓ Forestry, paper, pulp and furniture ✓ Creative and cultural industries ✓ Business process services <p>Cluster 3 – Sectors with potential for long-term advanced capabilities:</p> <ul style="list-style-type: none"> ✓ Nuclear ✓ Advanced materials ✓ Aerospace, Defence, and ✓ Electrotechnical and ICT 		

Table 4.20: Provincial Policy Alignment Summary

Meso Policies – Gauteng Province	Gauteng Spatial Development Framework, 2010	Gauteng Employment Grow and Development Strategy, 2009-2014	The Gauteng Global City Region Strategy
	<ul style="list-style-type: none"> ✓ Manufacturing sector ✓ Province as the smart centre ✓ Finance and business services sectors 	<ul style="list-style-type: none"> ✓ Innovative economy: Science and technology innovation, socio-economic innovation, environmental innovation ✓ Green economy: Green processes and products ✓ Inclusive economy: Accessibility, connectivity and interaction made possible by infrastructure investments 	<ul style="list-style-type: none"> ✓ Mining, ✓ Manufacturing, ✓ Financial and business services, ✓ Innovation and trade.
	The Gauteng Trade and Industry Strategy, 2003	The Gauteng Industrial Policy Framework, 2010 - 2014	Growth and Development Strategy for Gauteng
	<ul style="list-style-type: none"> ✓ Manufacturing ✓ Innovation ✓ Business tourism ✓ Financial services 	<ul style="list-style-type: none"> ✓ Food and beverages - Including agro-processing ✓ Furniture ✓ Construction ✓ Machinery and Equipment - Specific emphasis on manufacturing of power boilers, valves and pumps ✓ Automotive and Components 	<ul style="list-style-type: none"> ✓ Smart Industries (including ICT, Pharmaceuticals) ✓ Trade and Services (including Finance and Film) ✓ Tourism ✓ Agriculture (agri-processing and bio-tech) ✓ Manufacturing (steel related industries, automotive parts and components, Beer and malt) ✓ Infrastructure expansion and investment

Table 4.20: District Policy Alignment Summary

Meso Policies – West Rand District Municipality	West Rand District: Vision 2016 and the Green IQ	WRDM Regional Spatial Development Framework	WRDM Regional Growth and Development Strategy
	<ul style="list-style-type: none"> ✓ Green economy ✓ Technology and innovation 	<ul style="list-style-type: none"> ✓ Infrastructure development ✓ Social and community development ✓ Environmental development 	<ul style="list-style-type: none"> ✓ Mining ✓ Agriculture ✓ Tourism ✓ Green economy
	WRDM Local Economic Development Strategy	WRDM – Marketing and Investment Strategy	WRDM Regional Economic Development Plan
	<ul style="list-style-type: none"> ✓ Expansion of the Agricultural Sector ✓ Industrial and Beneficiation Development ✓ Waste Recycling/Processing ✓ SMME Development and Support Centre ✓ Human Resource Development ✓ Tourism Development 	<ul style="list-style-type: none"> ✓ Tourism ✓ Agriculture and agro-processing ✓ Mining and mineral processing and beneficiation ✓ Manufacturing 	<ul style="list-style-type: none"> ✓ Intensive Agriculture Development ✓ Tourism Diversification and Development ✓ Green Economy ✓ Agro-Processing ✓ SMME Development ✓ Lanseria Nodal Development

Table 4.20: Local Policy Alignment Summary

Micro Policies – Local Municipalities	Merafong City Local Municipality Spatial Development Framework	Mogale City Local Municipality Spatial Development Framework	Randfontein Local Municipality Spatial Development Framework
	<ul style="list-style-type: none"> ✓ Industrial / manufacturing - steel fabrication, agro-processing. ✓ Diversification away from mining - beneficiation of mining by-products such as wood, stone and the refining of old mine tailings for gold and uranium. ✓ Agriculture beneficiation ✓ Tourism ✓ Metallurgical. ✓ Construction ✓ Waste (recycling) 	<ul style="list-style-type: none"> ✓ Agriculture ✓ Tourism ✓ Industrial 	<ul style="list-style-type: none"> ✓ Agriculture ✓ Infrastructure

MODULE 3: RESOURCE BASE

The Resource Base module covers a spectrum of economic assets in the West Rand District. The resources of the existing economic base, or production profile is a reflection of the total final demand by sector as such it provides an indication of the key sectors and sectoral strengths of the West Rand on a fine grained geographic basis. Statistical analysis graphically illustrated with graphs, which, in turn are illustrated geo-spatially via a GVA map series.

In the context of the above, this module provides an in-depth assessment of the West Rand District economic base in terms of the following aspects:

- ✓ Economic Sectoral and Production Profile by Area
- ✓ West Rand District Consumer Demand Base – Consumer Profile
- ✓ Labour Force Profile
- ✓ Sector Competitiveness Analysis
- ✓ Mining Recourses and Operations on the West Rand
- ✓ Industrial Operations on the West Rand

CHAPTER 5: ECONOMIC SECTORS AND PRODUCTION BY AREA

5.1 INTRODUCTION

Governments, businesses, individuals, and organisations involved in community and economic development are always searching for a way to forecast patterns of economic growth. They do this for all the right reasons, of course, wanting to encourage economic growth in areas that have the most potential to be successful and avoid devoting scarce resources to economic areas and opportunities that are more likely to fail.

Unfortunately, forecasting economic trends is extremely difficult. The market has a tendency to move in unpredictable ways because of new technology, changes in politics or world events etc. The development of a climate that encourages economic development, supports business, and encourages businesses and consumers to patronise local businesses may be more successful than a strategy to promote or subsidise a particular sector.

This chapter does not provide a forecast of future opportunities. It is, instead, an examination of past trends with a view to identifying industry sectors that have under-performed or over-performed relative to other industries and other regions. Reference is made to the **West Rand District Economy** and the **Merafong City, Mogale City, Randfontein and Westonaria Local Economies** in terms of selected time series economic and employment indicators.

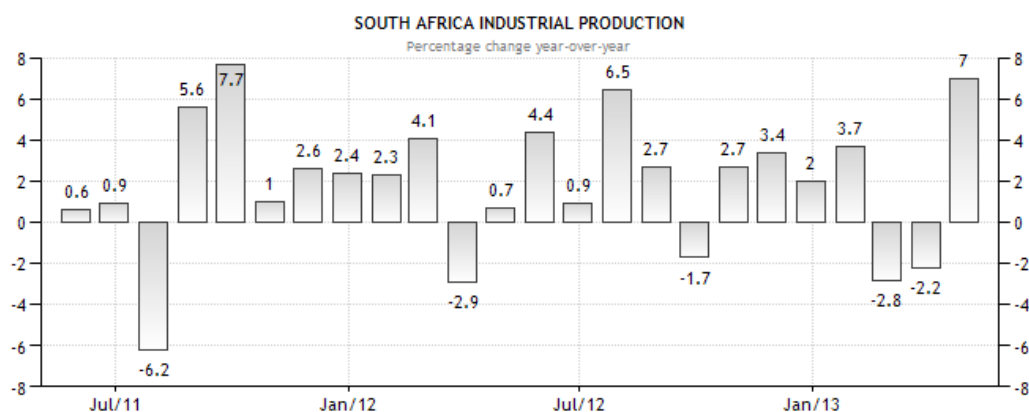
Following is an overview of the Classic Economy on a Macro, Meso and Micro level.

MACRO LEVEL

5.2 NATIONAL INDUSTRIAL / MANUFACTURING TRENDS

SOUTH AFRICA INDUSTRIAL PRODUCTION

Industrial production in South Africa increased 7% in April of 2013 over the same month in the previous year. Historically, from 2000 until 2013, South Africa Industrial Production averaged 1.78% reaching an all-time high of 10.80% in April of 2008 and a record low of -22.10% in April of 2009. In South Africa, industrial production measures the output of businesses integrated in the manufacturing sector of the economy.



SOURCE: WWW.TRADINGECONOMICS.COM | STATISTICS SOUTH AFRICA

➤ NEDBANK ECONOMIC COMMENTARY - MANUFACTURING PRODUCTION - JANUARY 2013

Manufacturing Production Improved Moderately In November

- ✓ The slow recovery in manufacturing production continued in November. Total output rose to 3,4% y-o-y, up from 2,7% in October and better than market expectations of 2,2% y-o-y.
- ✓ Over the year, the improvement mainly reflects higher production in petroleum, chemicals, rubber and plastics, motor vehicles and other transport equipment, furniture and other manufacturing as well as electronic and telecommunication equipment.
- ✓ Despite the improvement towards the end of 2012, the trading environment will remain challenging in 2013. A weak Eurozone will continue to hurt the large export-orientated industries. The long-term pressure on manufacturers providing goods to the local consumer markets will also persist as consumer spending remains moderate and high price-sensitive, favouring competitively priced imports. On the upside, the recent recovery in infrastructure spending by the public sector will probably support the industries producing capital goods and other inputs for local projects, but the upside will be contained by slower capital expenditure by the private sector in response to the bleaker economic environment both locally and internationally. The moderate recovery in manufacturing production will continue in 2013, but no impressive upward momentum is expected.
- ✓ Recent economic indicators suggest that the economy probably improved slightly from the strike-inflicted lows of the third quarter. However, the pace of the recovery remains slow and uneven, with production under pressure, while domestic spending is still propping up the economy, albeit with less force than in 2011 and early 2012. Much the same pace and composition is expected in 2013. Recession in Eurozone and sluggish growth elsewhere in the world economy will continue to undermine exports and production, while slower wage growth and limited employment gains will keep domestic spending growing at only a moderate pace. Consequently, the Reserve Bank's MPC will probably opt to keep interest rates at current low levels for as long as possible. Interest rates are expected to remain unchanged until November, before edging up slightly in late 2013.

Table 5.1: Manufacturing Production

	November 2012		October 2012	November 2012	
	Y-o-y%	M-o-m% (SA)	Y-o-y%	Nedbank Y-o-y%	Market Y-o-y%
Total manufacturing production	3,4	2,3	-1,7	2,7	2,2

Source: Statistics South Africa and Reuters

Comment

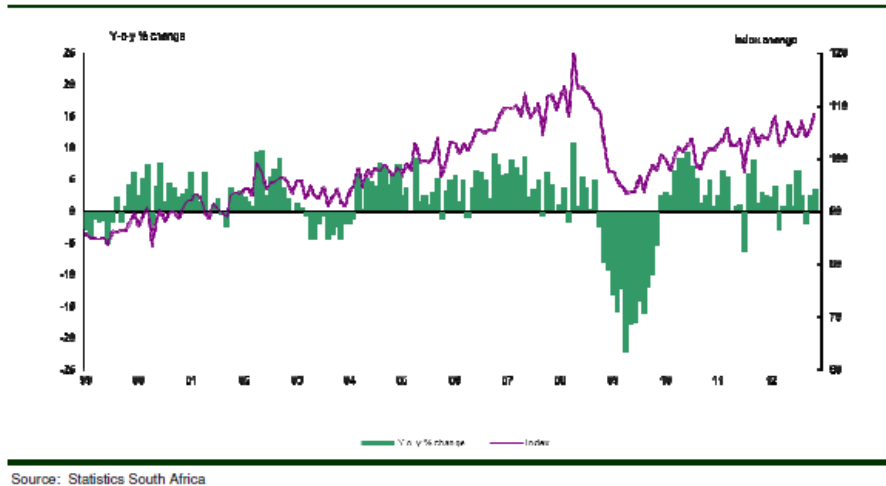
Manufacturing production improved further in November. Over the year, total output rose by a moderate 3,4%, up from 2,7% in October, beating market expectations of 2,2% y-o-y growth. Seven out of the ten major industries recorded higher production on an annual basis. The largest contributions came from the following industries:

- _ 'Petroleum, chemical products, rubber and plastic products', which rose 11,4% y-o-y, contributing 2,6 percentage points to the annual increase.
- _ 'Motor vehicles, parts and accessories and other transport equipment', where output rose by 6,7% y-o-y, contributing 0,7 percentage points to y-o-y increase.
- _ 'Furniture and other manufacturing' rose by 7%, adding 0,3 percentage points to the annual increase.
- _ 'Radio, television and communication apparatus and professional equipment' increased by 13,8%, contributing 0,3% percentage points.

In contrast, output by the broader food and beverages industries declined by 0,4% y-o-y, while production of 'glass and other non-metallic mineral products' as well as 'electrical equipment' dropped by 6,2% and 7% respectively.

On a monthly basis, total output rose by a seasonally adjusted 2,3%, after growing by 1,6% in October. In the three months to November, production rose by a seasonally adjusted 0,8% compared with the previous three months.

Figure 5.1: Manufacturing Production Trends



Outlook

Despite the improvement towards the end of 2012, the trading environment will remain challenging in 2013. A weak Eurozone will continue to hurt the large export-orientated industries. The long-term pressure on manufacturers providing goods to the local consumer markets will also persist as consumer spending remains moderate and high price-sensitive, favouring competitively priced imports. On the upside, the recent recovery in infrastructure spending by the public sector will probably support the industries producing capital goods and other inputs for local projects, but the upside will be contained by slower capital expenditure by the private sector in response to the bleaker economic environment both locally and internationally. The moderate recovery in manufacturing production will continue in 2013, but no impressive upward momentum is expected.

Implications

Recent economic indicators suggest that the economy probably improved slightly from the strike-inflicted lows of the third quarter. However, the pace of the recovery remains slow and uneven, with production under pressure, while domestic spending is still propping up the economy, albeit with less force than in 2011 and early 2012. Much the same pace and composition is expected in 2013. Recession in Eurozone and sluggish growth elsewhere in the world economy will continue to undermine exports and production, while slower wage growth and limited employment gains will keep domestic spending growing at only a moderate pace. Consequently, the Reserve Bank's MPC will probably opt to keep interest rates at current low levels for as long as possible. Interest rates are expected to remain unchanged until November, before edging up slightly in late 2013.

Table 5.2: Breakdown of Manufacturing Production

Growth over the 3 months to November 2012			
Industries	Y-o-y %	Industries	Q-o-q %
Petroleum	32.9	Publishing	26.4
Publishing	28.1	Petroleum	13.3
Furniture	7.9	Non-ferrous metals	11.1
Clothing	7.8	Textiles	9.2
Glass	7.6	Basic chemicals	7.4
Motor vehicles	7.1	Glass	7.3
Radio, TV & professional equipment	6.1	Radio, TV & professional equipment	6.8
Grain mill products	5.9	Basic iron & steel	6.5
Other transport	5.5	Leather	6.1
Printing	5.3	Printing	4.3
Other chemicals	4.9	Bodies for motor vehicles	3.0
Other fabricated metal products	4.0	Plastic	2.2
Household appliances	3.7	Paper	1.0
Plastic	3.0	Total	0.8
Basic chemicals	1.6	Other fabricated metal products	0.4
Total	1.5	Clothing	0.3
Beverages	1.5	Food processing	0.3
Bodies for motor vehicles	1.2	Grain mill products	0.2
Food processing	0.7	Other chemicals	-0.3
Leather	0.3	Knitted clothing articles	-0.6
Textiles	0.3	Beverages	-1.2
Wood preparation	-0.5	Wood products	-1.4
Wood products	-1.0	Other non-metallic products	-1.5
General machinery	-1.2	Metal products	-1.7
Metal products	-1.5	Dairy products	-2.5
Basic iron & steel	-1.7	General machinery	-2.6
Dairy products	-2.3	Wood preparation	-2.6
Special machinery	-3.1	Rubber	-3.0
Paper	-3.9	Furniture	-3.3
Non-ferrous metals	-6.7	Special machinery	-3.3
Footwear	-8.0	Other transport	-3.4
Other non-metallic products	-8.7	Household appliances	-4.7
Electrical machinery	-9.0	Vehicle parts & accessories	-5.9
Vehicle parts & accessories	-9.7	Footwear	-6.4
Rubber	-11.3	Other textiles	-7.1
Other food	-11.7	Electrical machinery	-7.5
Knitted clothing articles	-12.5	Other food	-10.0
Other textiles	-12.5	Motor vehicles	-10.4

Source: Statistics South Africa & Nedbank Group Economic Unit calculations

➤ MANUFACTURING CIRCLE SOUTH AFRICA

A Strong And Growing Manufacturing Sector Is Of Vital Importance For A Prosperous South Africa

- ✓ The manufacturing sector in SA employs around 1.7 million people
- ✓ Manufacturing output accounts for 15% of GDP
- ✓ For every R1 invested in manufacturing there is R1.13 of value addition to the SA economy
- ✓ Manufacturing is among the top three multiplier sectors in terms of value addition, job creation, export earnings and revenue generation for every R1 invested.
- ✓ Manufacturing provides the base load and scale for key national infrastructure such as electricity generation and municipal services
- ✓ Manufacturing provides the only viable means of benefiting natural resources in SA

The Positive Contribution And Potential Of Manufacturers Is Currently Under Severe Threat In SA

- ✓ More than 300 000 South African manufacturing jobs have been lost or exported to other countries since the beginning of 2008, with the majority going to China
- ✓ More than 440 000 small business owners have closed up shop in 5 years between 2006 and 2011
- ✓ In September 2012, South Africa's Purchasing Management Index registered a three-year low gesturing at bad business conditions and contraction in Manufacturing

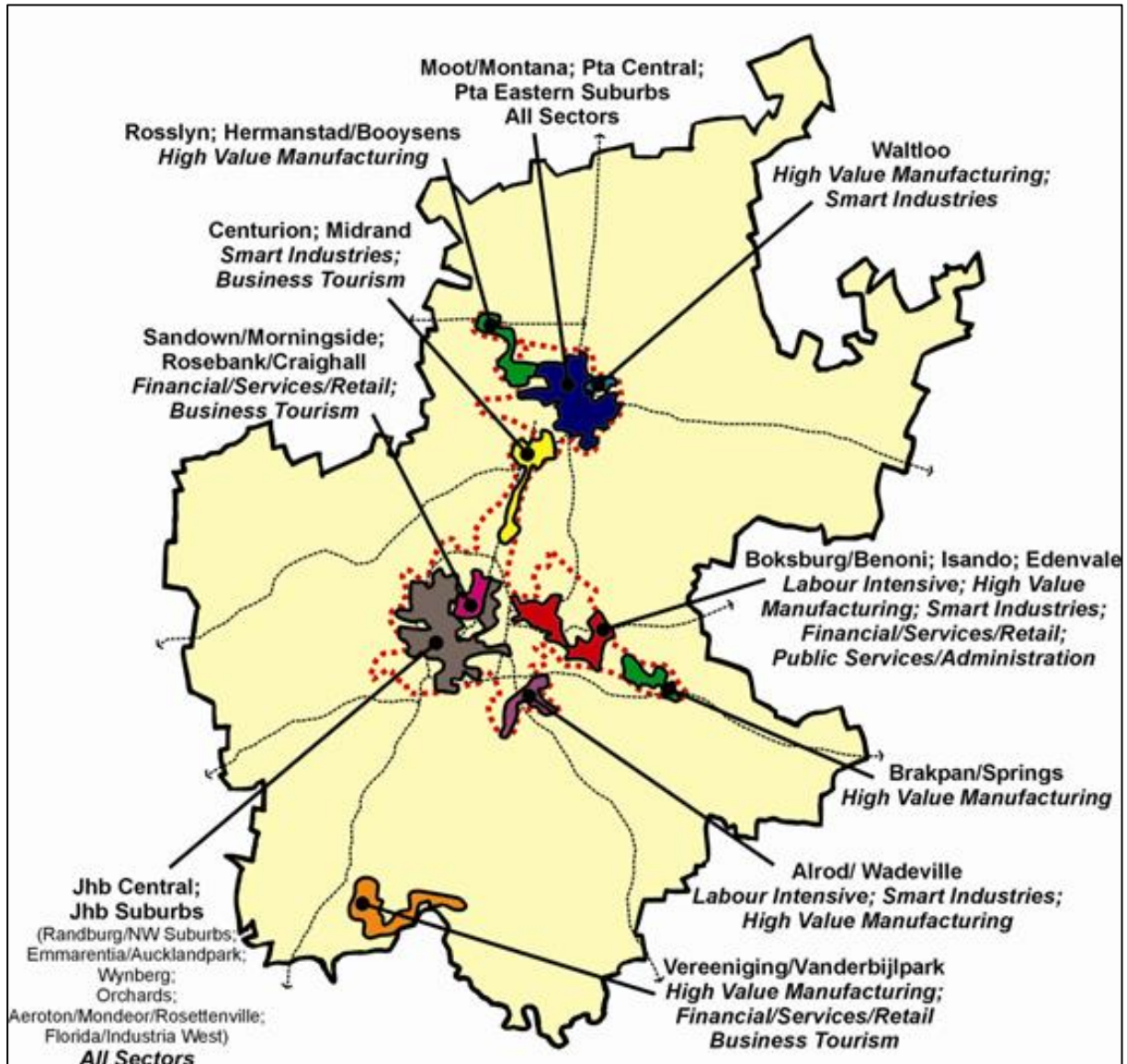
- ✓ South African Manufacturers foresee further decline over the next two years unless key domestic policy issues, and the leveling of our trade situation are not addressed immediately
- ✓ Conditions have deteriorated because while administered prices in other BRICS countries have decreased by over 36% in the last decade, electricity costs have rocketed by over 170% in South Africa and predicted to continue to escalate at more than double the forecasted inflation rate
- ✓ At the same time our domestic market is under-protected against unfairly incentivised imports, while China, India, Brazil and other countries offer much higher incentives and protection to their manufacturers
- ✓ The imbalance in our trade situation is evidenced by our negative trade balance with China, which rapidly outstripped the negative trade balance with all other trading partners. Our trade deficit now makes up 6.4% of GDP, which is cause for great concern
- ✓ There will be further decline over the next two years unless key domestic policy issues and the unfair trade situation are addressed immediately. More companies will close down, more jobs will be lost, the Manufacturing contribution to GDP will contract further and the balance of payments situation will weaken
- ✓ Manufacturing output is supported by a more stable and competitive rand exchange rate, but this requires more focused policy determination over the long term
- ✓ Post-2009, South Africa's manufacturing sector has not recovered to the extent its peers has, as our domestic policies do not foster manufacturing competitiveness
- ✓ To ensure its sustainability and its contribution to the growth of the economy and jobs in South Africa, Manufacturing output must grow at least by 10% per annum

MESO LEVEL

5.3 GAUTENG PRODUCTION PROFILE AND GEO-SPATIAL DISTRIBUTION

The top ten contributing areas of Gauteng for each of the six economic categories can be grouped spatially to form a set of ten multi-category nodes. The pattern that emerges in terms of dominant category distribution in the province is a series of nodes with a mix of various dominant categories. Only two exceptions of nodes with a single dominant category, i.e. high value manufacturing, exist: (1) Rosslyn and Hermanstad / Booyens; and (2) Brakpan / Springs. Three nodes with only two dominant categories exist: (1) Centurion / Midrand (smart industries and business tourism); (2) Sandown / Morningside and Rosebank / Craighall (financial / services / retail and business tourism); and (3) Waltloo (high value manufacturing and smart industries). The nodes that make the highest contribution to provincial GVA also show the highest mix in dominant categories, i.e. the areas around Johannesburg and Pretoria CBDs. The table on the next page sets out the provincial contribution of each node, disaggregated in terms of the six economic categories that formed the basis of this study.

Map 5.1: Economic Activities in Gauteng - Spatial Grouping



From the preceding map it is evident that economic activities are spatially concentrated in certain areas of the Gauteng province. Notably, the majority of activities are centralised around Pretoria, Johannesburg and Ekurhuleni with only one peri-urban location – Vereeniging. These areas are expected to experience the bulk of commercial and residential development attributed to access to social and physical infrastructure as well as supporting industries and services. The location of these economic centres will be one of the primary influences of future development direction and distribution.

Table 5.3 is a brief summary of the provincial economic performance.

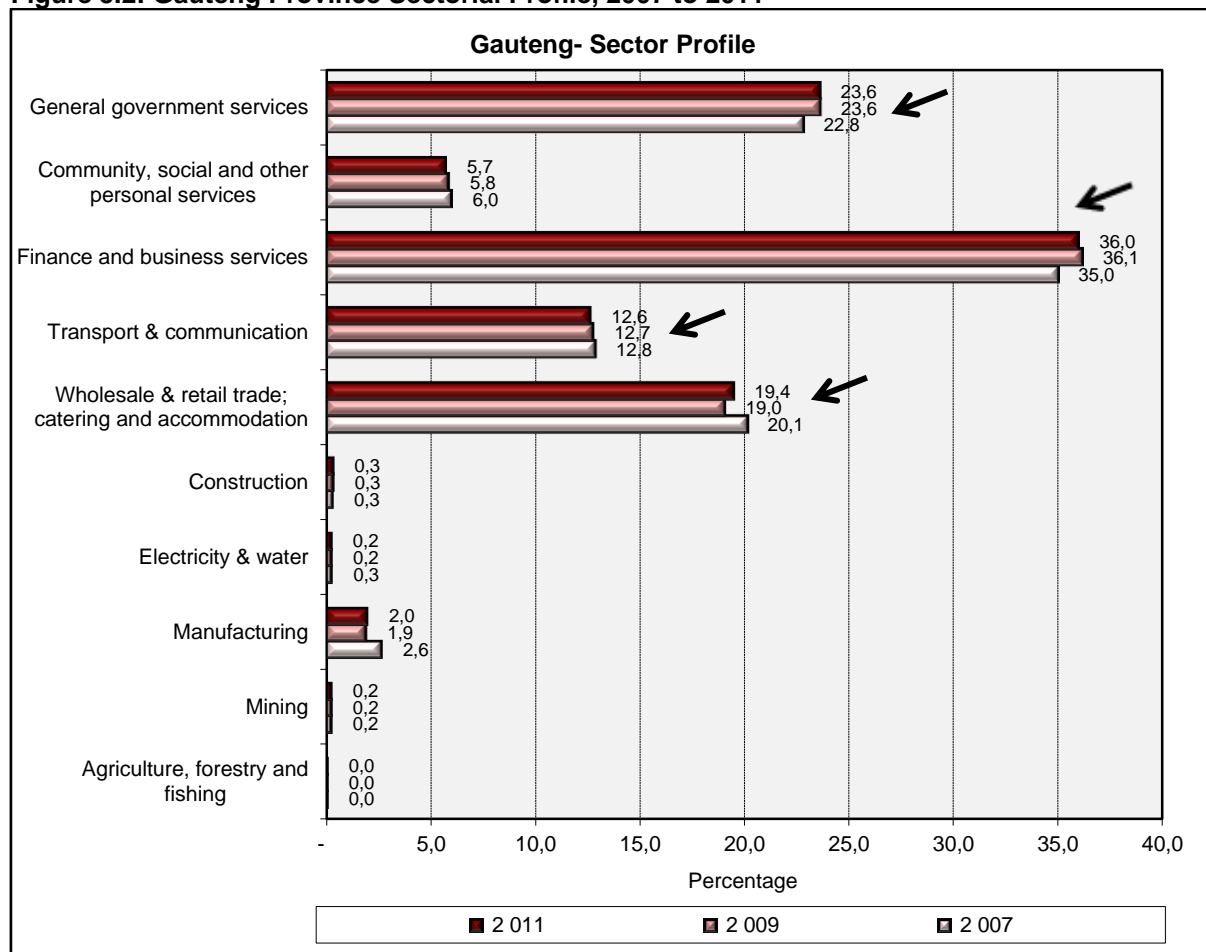
Table 5.3: Summary of Key Economic Indicators of Gauteng

Variable	Market Characteristics
Size of the provincial economy (2011)	✓ Gauteng Economy contributes 35.2% towards the South African Economy
Economic Growth Performance – Time Period 1997 - 2011	Gauteng Provincial Economy ✓ Growth in the provincial economy has averaged 3.8% per annum since 1997 ✓ Since 2006, growth in the provincial economy recorded an average growth rate of 3.2% per annum
Trade Sector Growth Performance Time Period 1997 - 2011	✓ The long run average annual growth rate of the Provincial Economy Wholesale and Retail Sector averaged at 4.3% between 1997 and 2011 and the Catering and Accommodation for the same period averaged 4.2%.
Finance and Business Sector Growth Performance Time Period 1997 - 2011	✓ The long run average annual growth rate of the Provincial Economy Finance Sector averaged at 7.0% between 1997 and 2011 and the Services sector for the same period 6.0%.
Dominant Economic Contributions (2011)	✓ Finance, insurance, real estate and business services - 36.0% ✓ General government – 23.6% ✓ Wholesale and retail trade – 19.4% ✓ Transport & communication – 12.6% ✓ Community, social and other personal services – 5.7% ✓ Manufacturing – 2.0%

Source: Demacon Ex. Quantec, 2013

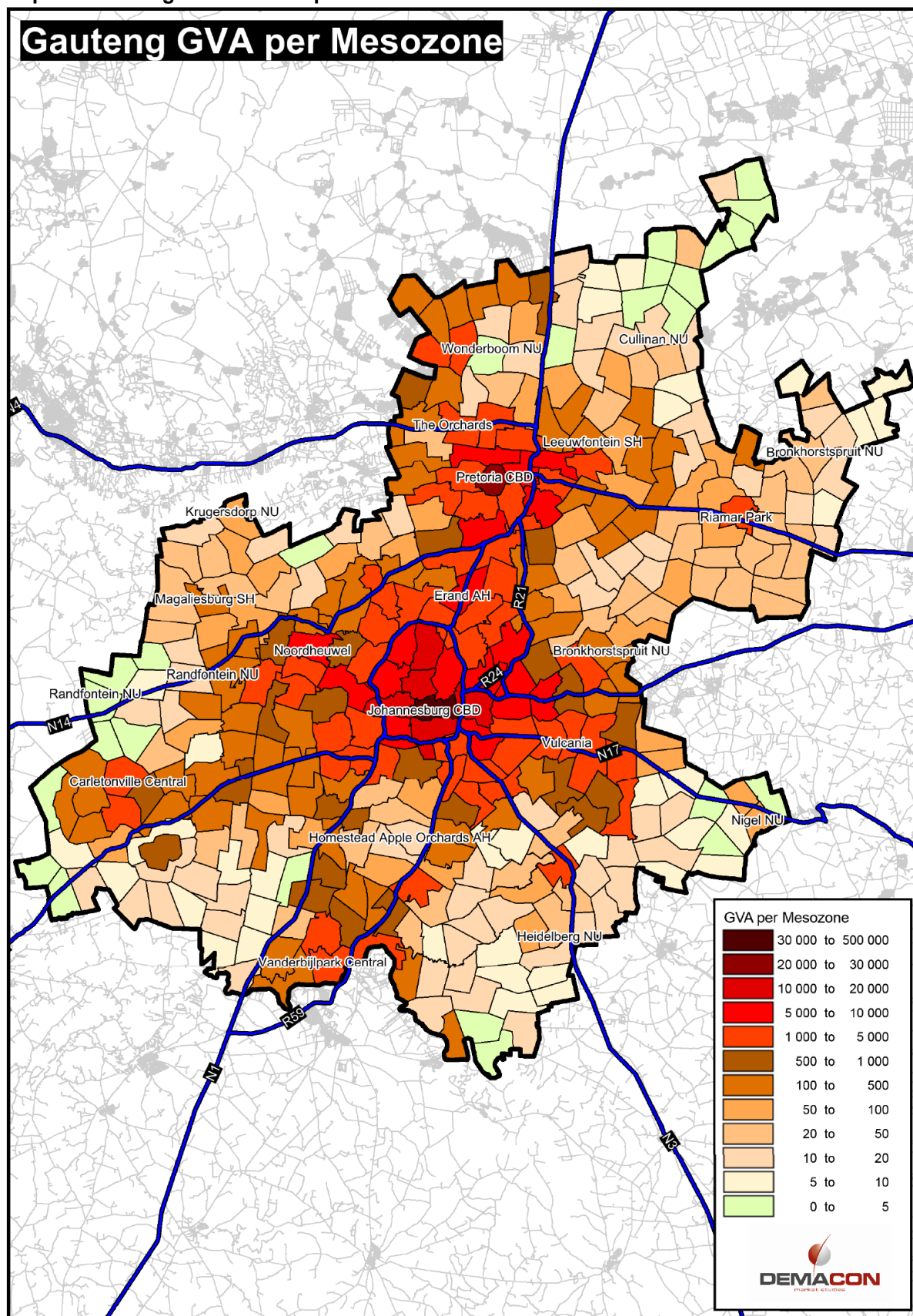
The following figures illustrate the Gauteng province economic contributions.

Figure 5.2: Gauteng Province Sectorial Profile, 2007 to 2011

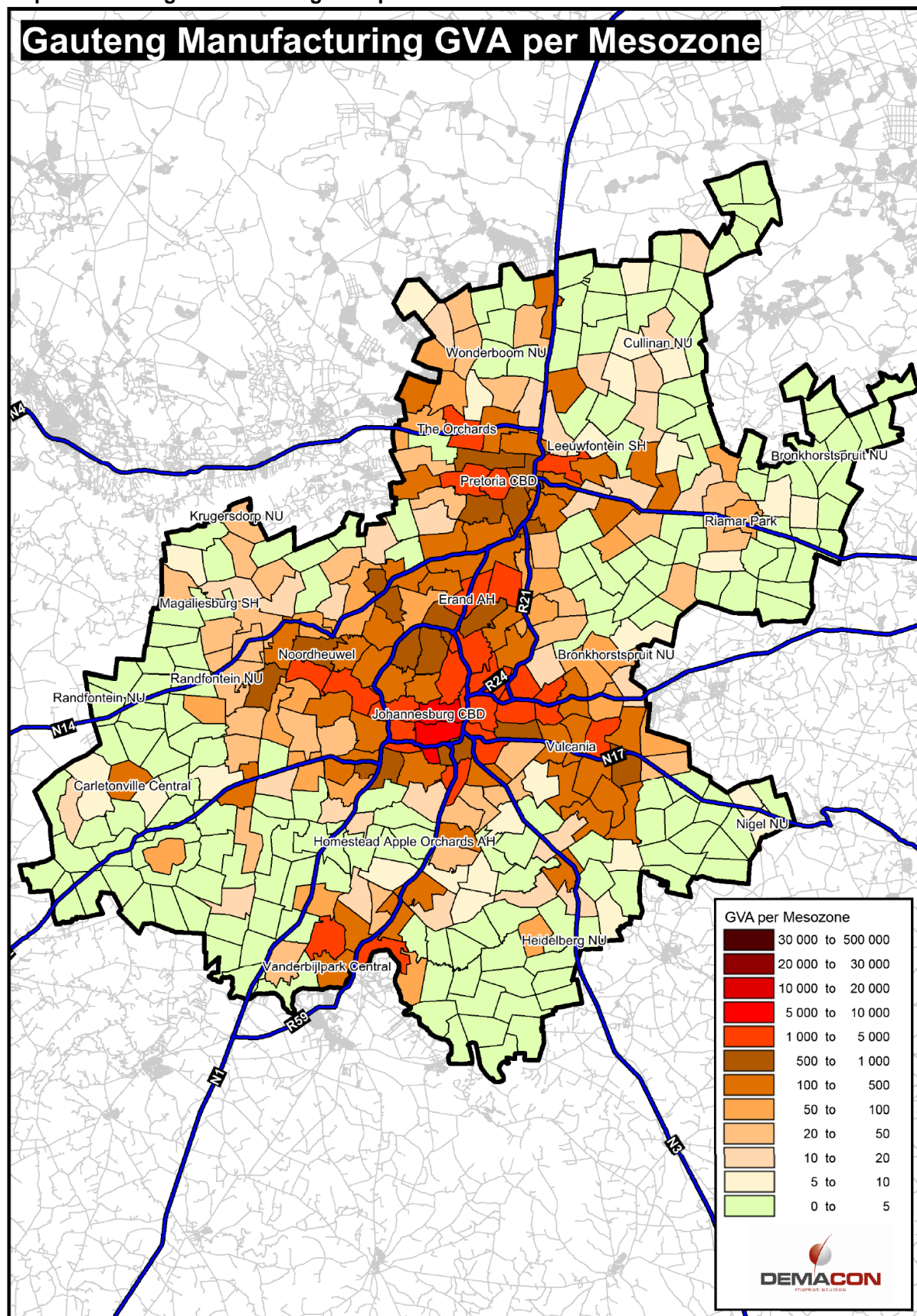


Source: Demacon Ex. Quantec, 2013

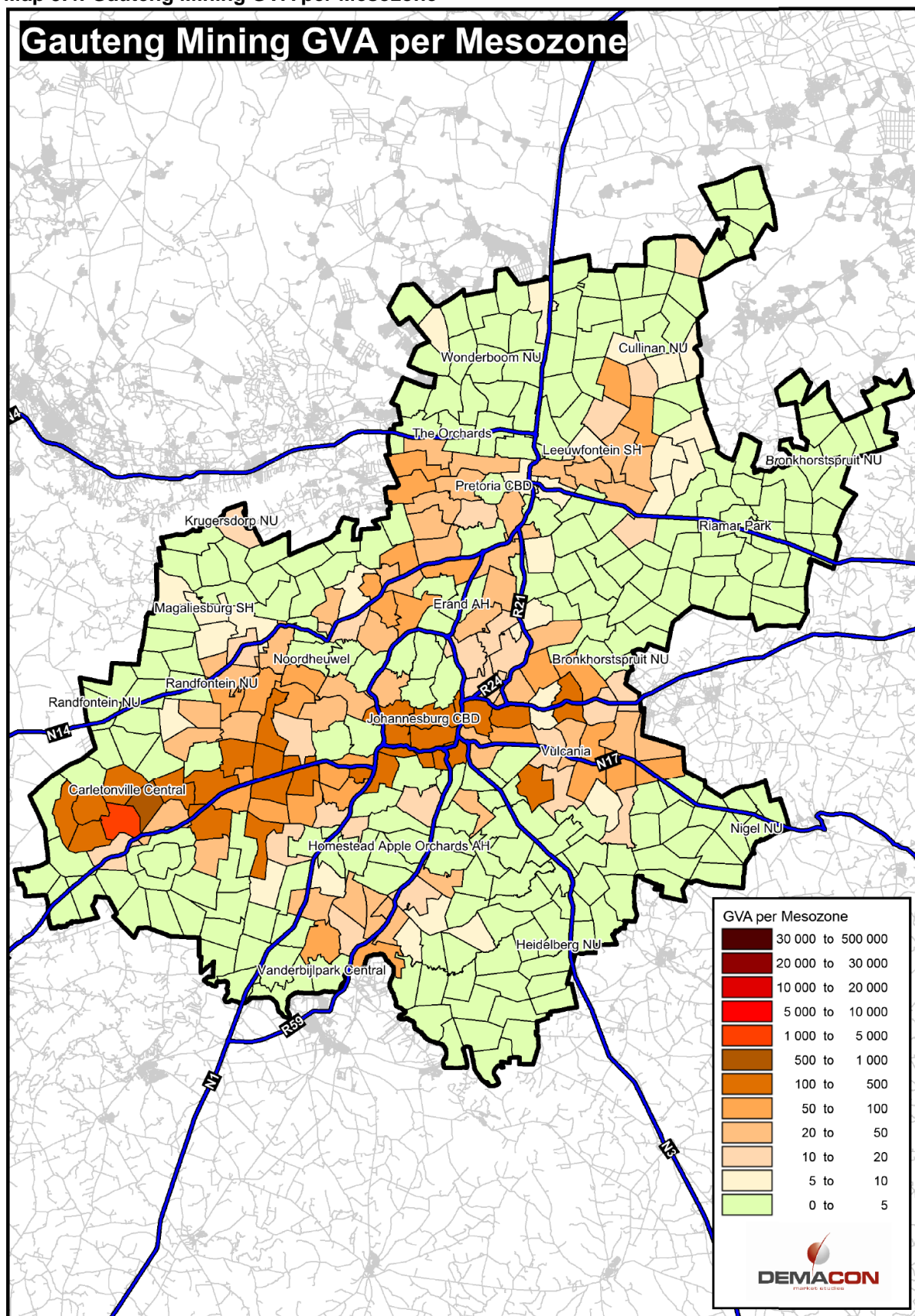
Map 5.2: Gauteng Total GVA Map



Map 5.3: Gauteng Manufacturing GVA per Mesozone



Map 5.4: Gauteng Mining GVA per Mesozone



MICRO LEVEL

Following is an overview of the Micro level economic factors.

5.4 WEST RAND DISTRICT SECTOR PROLIFE BY AREA

5.4.1 SIZE OF DISTRICT AND LOCAL ECONOMIES

District and Local economic figures relate to **GVA**. The database refers to it as Regional output and GDP as gross value added (GVA) at basic prices (2011 V1 release), R millions, constant 2005 prices. A more detailed definition of GVA is provided below.

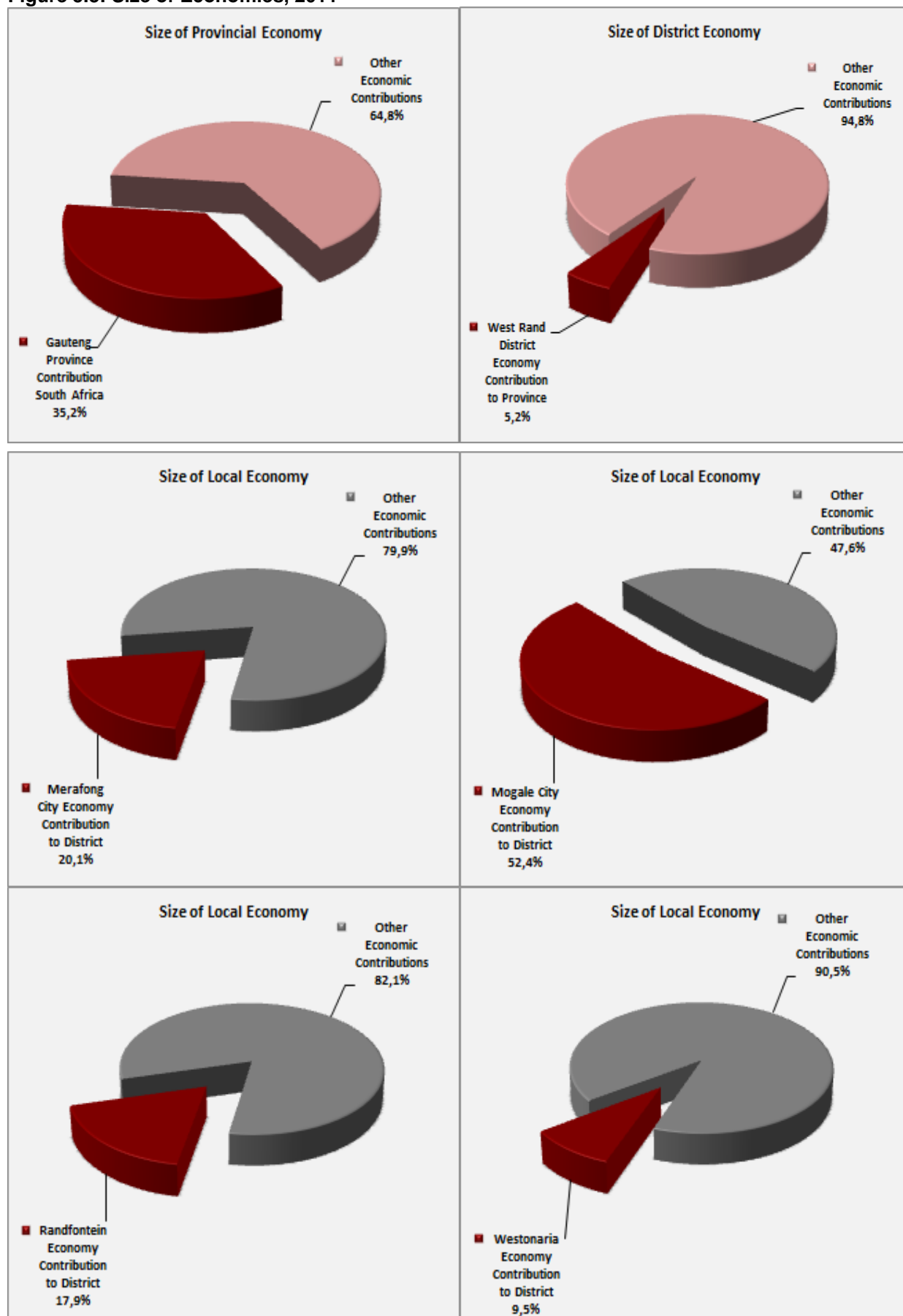
Gross Value Added (GVA) - The level of economic activities within a specific area. GVA is calculated as the difference between output and intermediate consumption in the economy. That is the difference between the value of goods and services produced and the cost of raw materials and other inputs, which are used up in production by all sectors of an economy.

Figure 5.3 indicates the size of the local and district economies.

Findings: (Figure 5.3)

- ✓ Figure 5.3 indicates that the West Rand District Economy contributed a 5.2% towards the provincial economy in 2011.
- ✓ Figure 5.3 furthermore indicates that:
 - Merafong City Local Economy contributed 20.1% towards the district economy,
 - Mogale City Local Economy contributed 52.4% towards the district economy,
 - Randfontein Local Economy contributed 17.9% towards the district economy,
 - Westonaria Local Economy contributed 9.5% towards the district economy in 2011.

Figure 5.3: Size of Economies, 2011



Source: Demacon Ex. Quantec, 2013

5.5 SECTORAL COMPOSITION AND LEVEL OF DIVERSITY

The **sectoral composition of economic activity** in a region is a good indication of the level of diversification or concentration of a region's economy and can be measured by the so-called tress index. A tress index of zero represents a totally diversified economy. On the other hand, the higher the index (closer to 100), the more concentrated or vulnerable the region's economy to exogenous variables such as adverse climatic conditions, commodity price fluctuations, and so on. An increase in the tress index of an area reflects an increase in the dependence of the economy on a single or a few economic activities and is an ostensibly negative trend.

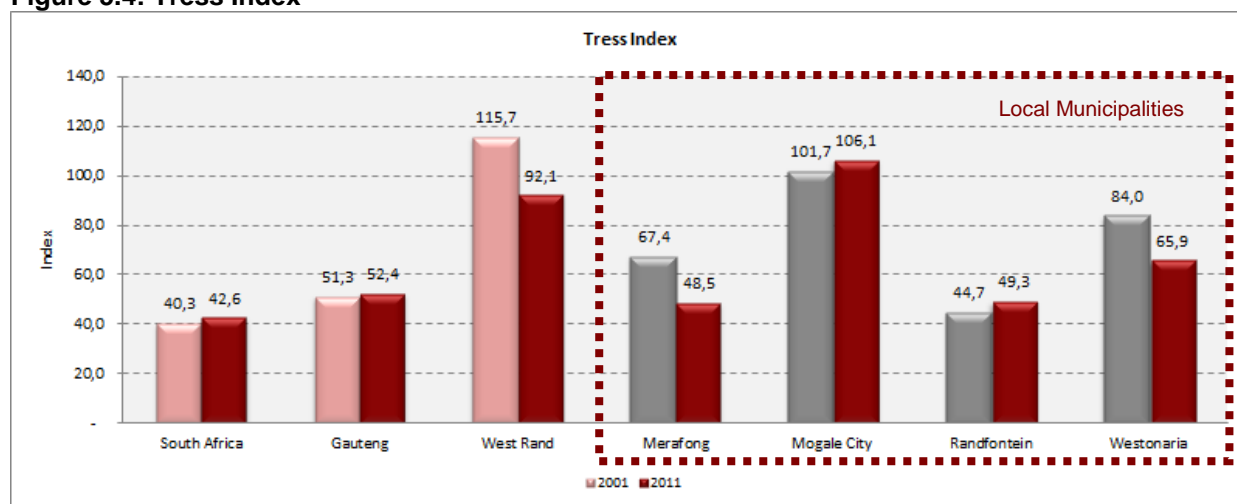
Table 5.4: Tress Index, 1999 to 2011

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
South Africa	39,5	39,5	40,3	40,4	40,0	40,4	40,6	41,6	41,9	42,4	42,1	42,3	42,6
Gauteng	50,1	50,3	51,3	51,5	51,2	51,3	50,8	51,9	52,0	52,7	52,1	52,2	52,4
West Rand	123,7	118,7	115,7	112,5	111,4	109,1	105,6	101,0	100,0	95,0	92,3	94,9	92,1
Merafong City	72,3	68,1	67,4	65,3	66,4	65,3	62,3	58,5	57,5	51,3	49,0	52,1	48,5
Mogale City	100,5	100,1	101,7	100,6	99,7	100,2	100,2	102,7	103,4	106,2	105,9	105,9	106,1
Randfontein	45,6	44,7	44,7	44,2	44,4	45,1	45,4	46,9	47,4	48,9	49,0	48,6	49,3
Westonaria	87,1	86,4	84,0	83,1	81,0	79,7	79,5	75,6	74,5	68,4	65,7	70,3	65,9

Source: Demacon Ex. Quantec, 2012

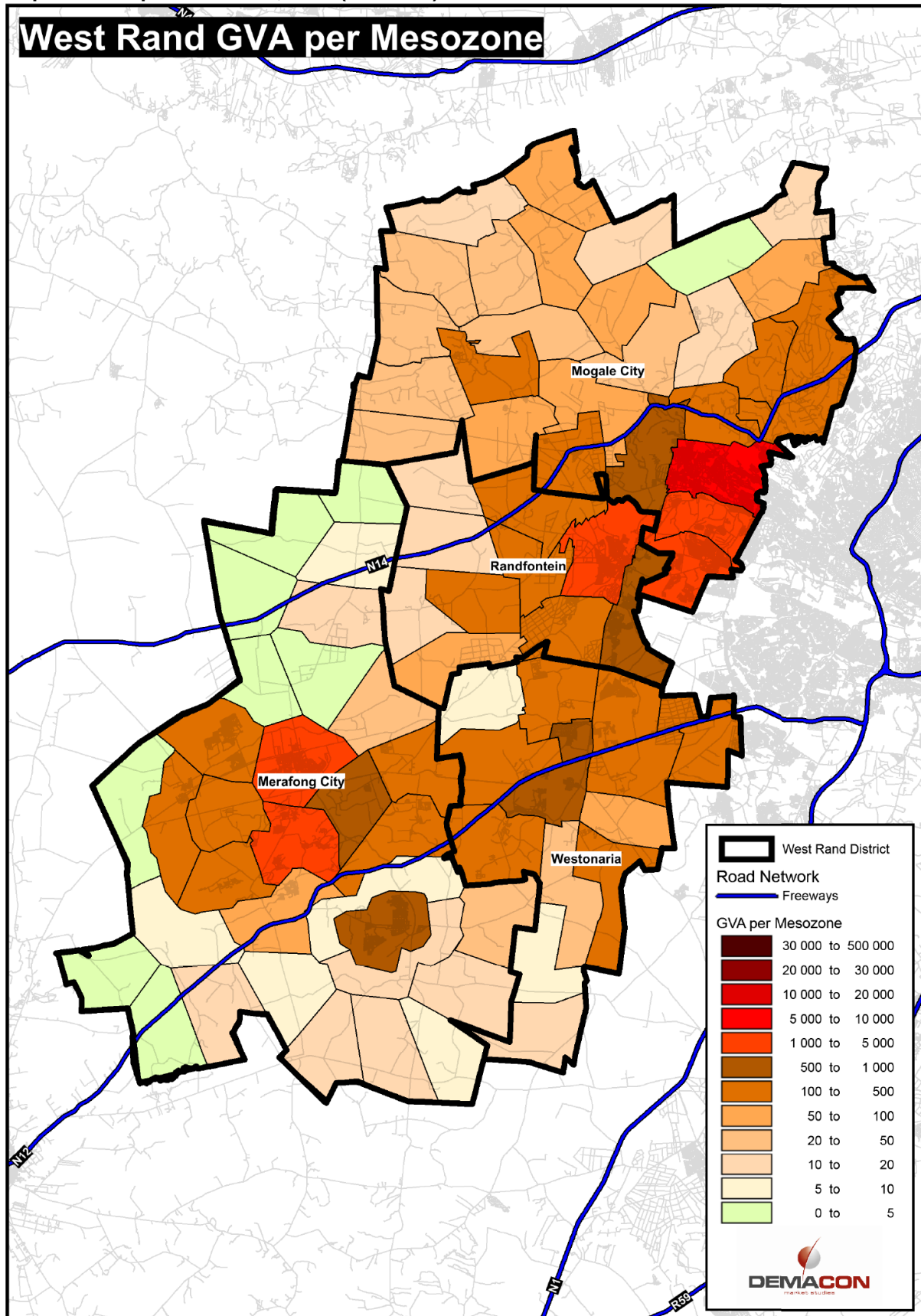
- ✓ The *West Rand District Economy* became slightly more diverse between 1999 and 2011, with the tress index declining from 123.7 to 92.1.
- ✓ The *Merafong City* local economy has become more diversified over the past few years with the tress index declining from 72.3 to 48.5 between 1999 and 2011.
- ✓ The *Mogale City* local economy has become slightly less diversified over the past few years with the tress index increasing slightly from 100.5 to 106.1 between 1999 and 2011.
- ✓ The *Randfontein* local economy has become slightly less diversified over the past few years with the tress index increasing slightly from 45.6 to 49.3 between 1999 and 2011.
- ✓ The *Westonaria* local economy has become more diversified over the past few years with the tress index declining from 87.1 to 65.9 between 1999 and 2011.

Figure 5.4: Tress Index



The economies are working towards becoming more diversified and less concentrated boding well towards the overall levels of economic vulnerability.

Map 5.5: GVA per Mesozone, 2011 (R/million)



5.6 SECTORAL PROFILE –GVA BASED

The economic contributions are contributed by the ten major economic sectors to the total economic production of the economies.

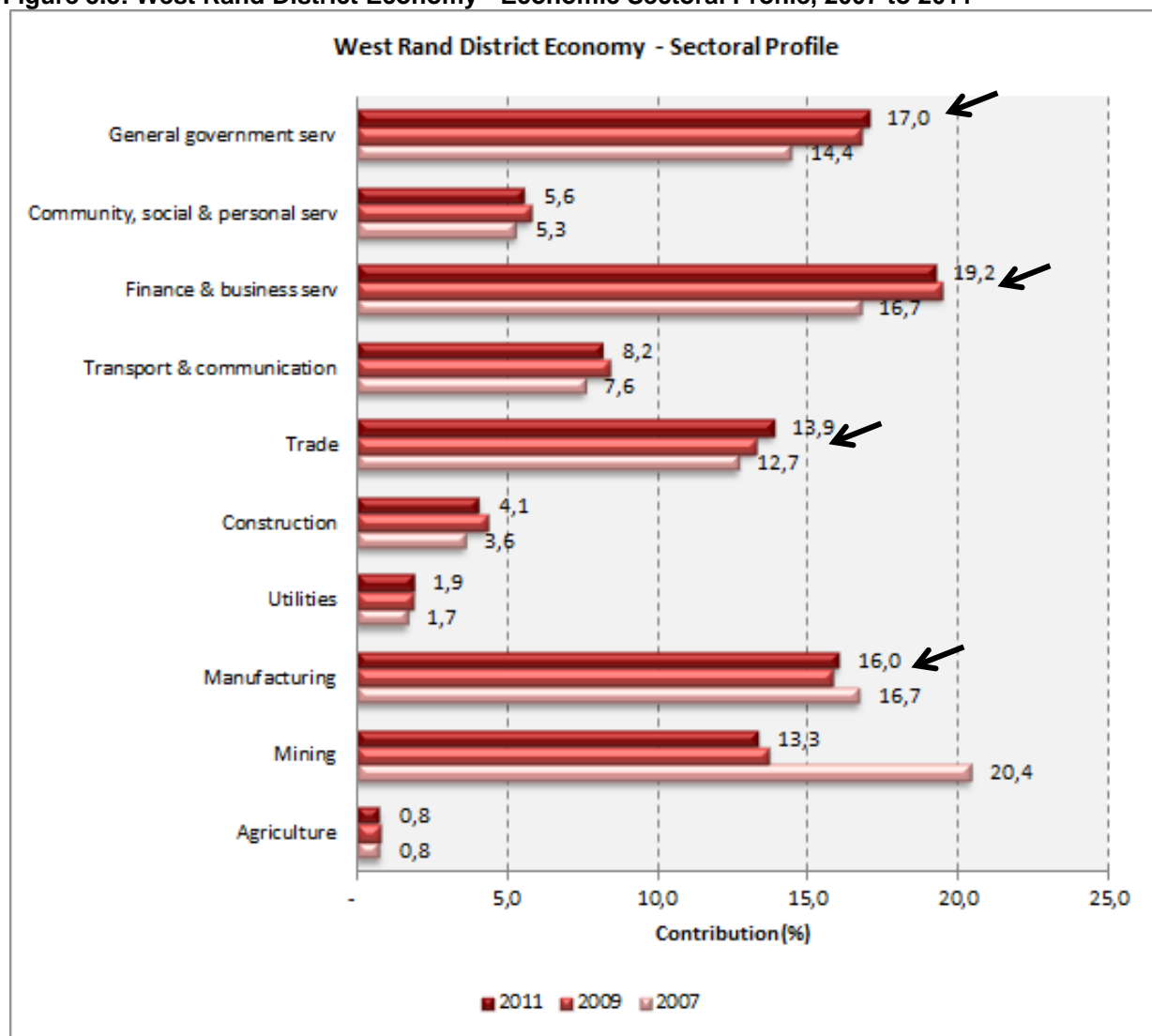
The ten economic sectors referred to include:

- ✓ **Agriculture** - Include establishments that are primarily engaged in farming activities, commercial hunting, game propagation and forestry, logging and fishing).
- ✓ **Mining** - Includes the extracting and beneficiating of minerals occurring naturally, including solids, liquids and crude petroleum and gases. It also includes underground and surface mines, quarries and the operation of oil and gas wells as well as all supplemental activities for dressing and beneficiating of ores and other crude material):
- ✓ **Manufacturing** – Manufacturing is defined as the physical or chemical transformation of materials or compounds into new products.
- ✓ The manufacturing sector represents an important economic and employment sector in any economy. The sector also serve as catalyst for supporting economic activities contributing to economic growth within an area and positive spin-off effects on the whole economy.
- ✓ **Utilities** – It includes electricity, water, gas, buildings and construction. It includes the production, collection and distribution of electricity; the manufacturing of gas; the distribution of gaseous fuels through mains; the collection, purification and distribution of water; and the construction of infrastructure and buildings.
- ✓ **Construction** – Buildings and construction involves residential building activities; non-residential building; roads, streets and bridges; water schemes and works; sewerage; and other construction activities
- ✓ **Trade** – The resale (sale without transformation) of new and used goods to the general public for personal or household consumption or use by shops, department stores, stalls, mail-order houses, hawkers and peddlers, consumer co-operatives, etc.
- ✓ **Transport and Communication** – Providing passenger or freight transport, whether scheduled or not, by rail, road, water or air and auxiliary activities such as terminal and parking facilities, cargo handling and storage, postal activities and telecommunications.
- ✓ **Finance and Business Services** – Activity of obtaining and redistributing funds, other than for the purpose of insurance, real estate or commercial/business services. Real estate includes the buying, selling, renting and operating of owned or leased real estate, such as flats and dwellings and non-residential buildings; developing and subdividing real estate into lots, etc. Also included are land-jobbers (i.e. property speculators) and the development and sale of land. Business services in this sector refer to the renting of transport equipment and other machinery such as agricultural, construction, computer, and household equipment.
- ✓ **Community, Social and Personal Services** - Include general activities of community organisations (NGOs), recreational, cultural and sporting activities, and other community, social and personal services.
- ✓ **General Government Services** - Include general activities of central, provincial and local government such as health and social work, education, infrastructure provision etc. This includes sewage and refuse removal, sanitation and similar activities and military and navy activities.

Subsequent figures illustrate the sectoral profiles for the district and local economies.

5.6.1 WEST RAND DISTRICT ECONOMY SECTORAL PROFILE (GVA CONTRIBUTION)

Figure 5.5: West Rand District Economy - Economic Sectoral Profile, 2007 to 2011



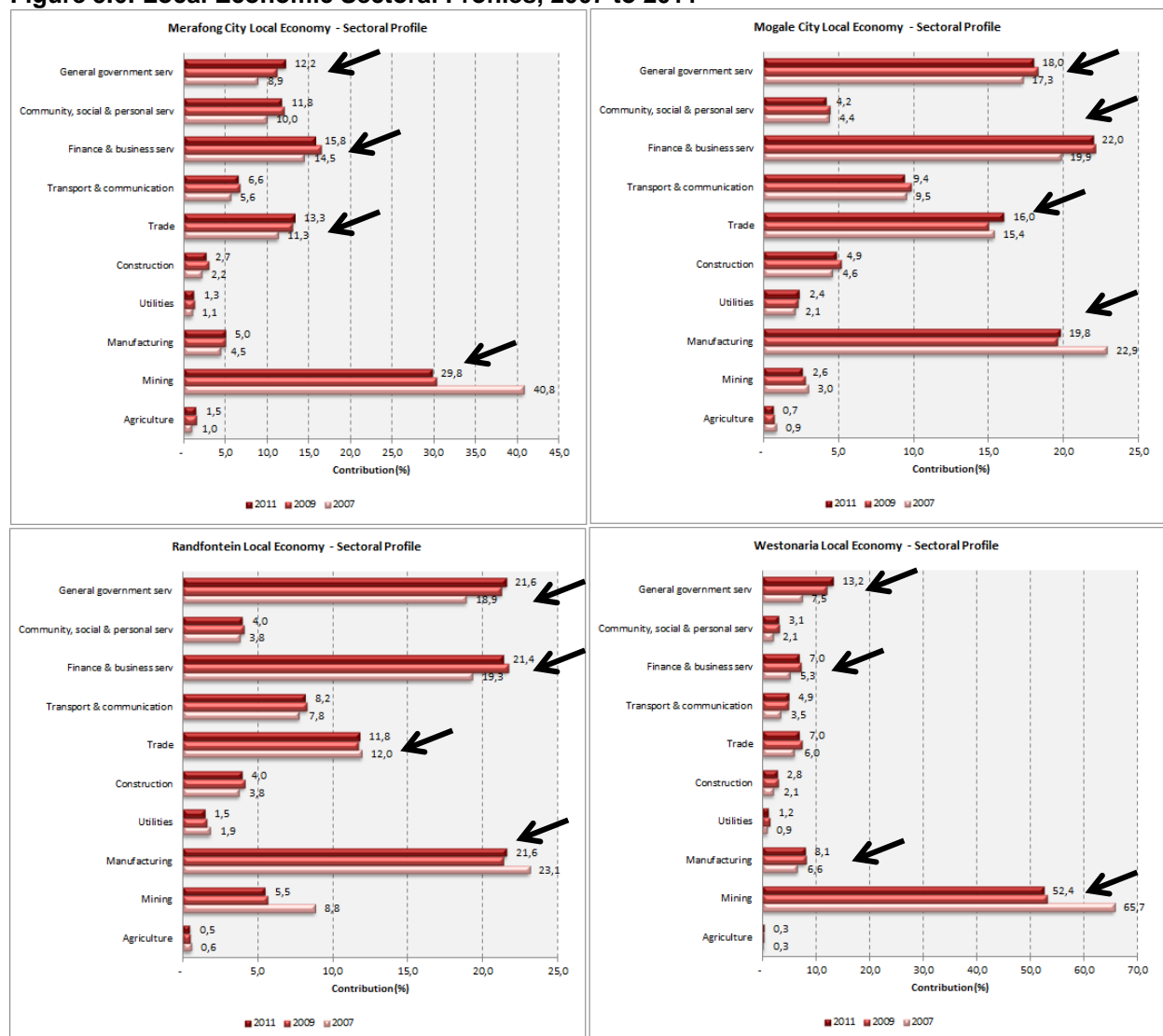
Source: Demacon Ex. Quantec, 2013

Findings: (Figure 5.5)

- ✓ The pillars of the district economy include: Manufacturing, General Government Services, Finance and Business Services and Trade - contributing approximately **66.1% towards the district economy.**
- ✓ The dominant economic sectors include:
 - Finance and Business Services – 19.2%
 - General Government Services – 17.0%
 - Manufacturing – 16.0%
 - Trade – 13.9%.
 - Mining – 13.3%
- ✓ Of the economic sectors seven have increased their market share between 2007 and 2011 – Manufacturing, Utilities, Construction, Trade, Transport and Communication, Finance and Business Services, Social Personal Services and General Government Services

5.6.2 LOCAL ECONOMY SECTORAL PROFILES (GVA CONTRIBUTION)

Figure 5.6: Local Economic Sectoral Profiles, 2007 to 2011



Source: Demacon Ex. Quantec, 2013

Findings: (Figure 5.6)

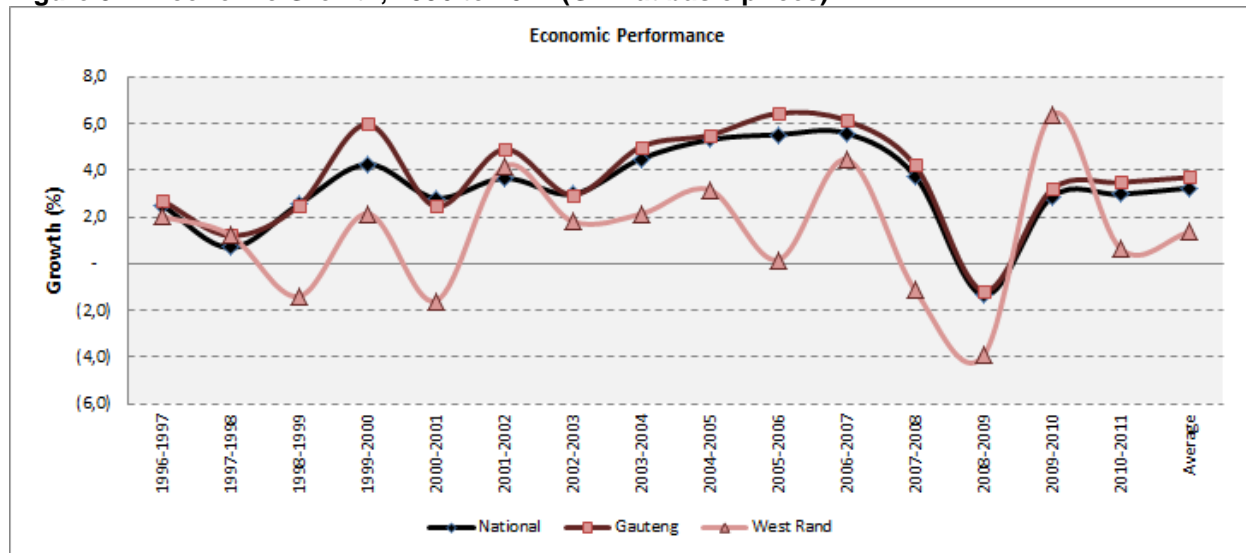
Table 5.6: The Dominant Local Economic Sectors Include:

Merafong City	Mogale City	Randfontein	Westonaria
✓ Mining – 29.8%	✓ Finance and Business Services – 22.0%	✓ Manufacturing – 21.6%	✓ Mining – 53.4%
✓ Finance and Business Services – 15.8%	✓ Manufacturing – 19.8%	✓ General Government Services – 21.6%	✓ General Government Services – 13.2%
✓ Trade – 13.3%	✓ General Government Services – 18.0%	✓ Finance and Business Services – 21.4%	✓ Manufacturing – 8.1%
✓ General Government Services – 12.2%	✓ Trade – 16.0%	✓ Trade – 11.8%	✓ Trade – 7.0%
✓ Community, Social & Personal Services – 11.8%	✓ Transport and Communication – 9.4%	✓ Transport and Communication – 8.2%	✓ Finance and Business Services – 7.0%

5.7 WEST RAND DISTRICT GROWTH TRENDS

The assessment in the following sections serves to highlight the West Rand District's **growth trends** in the market. Future investment opportunities will be informed by the West Rand regional assessment. Figure 5.7 provide detail on the growth performance of the local economy in respect of the district, provincial and national economies between 1996 and 2011.

Figure 5.7: Economic Growth, 1996 to 2011 (GVA at basic prices)



Source: Demacon Ex. Quantec, 2013

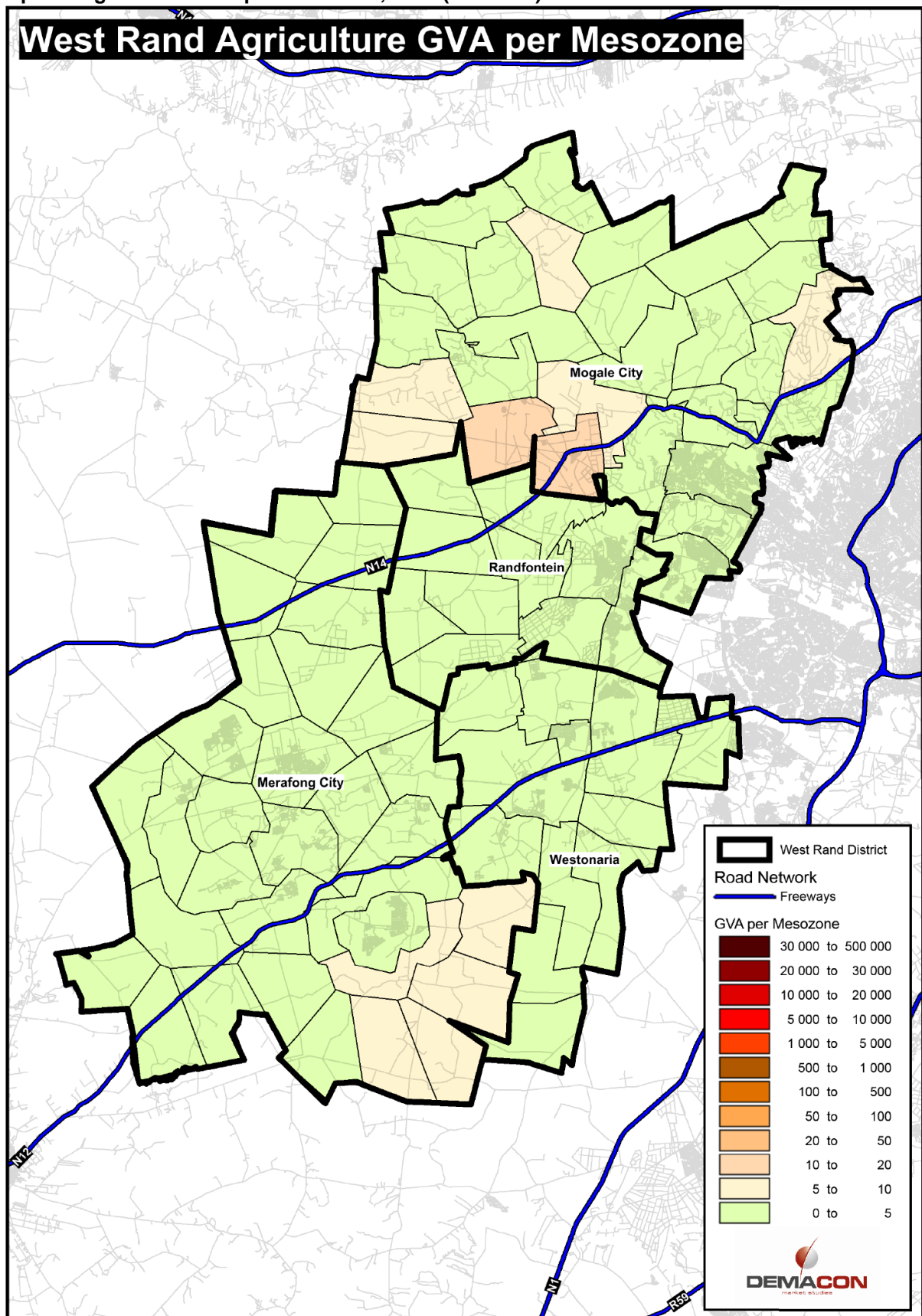
Findings: (Figure 5.8)

- ✓ The provincial economies reflected a similar growth trend pattern as the national economy, with the district reflecting more negative growth (2008-2009 peak) compared to the provincial and nation economies.
- ✓ The average annual growth rate of the national economy over this period amounted to 3.2% per annum, the provincial economy amounted to 3.7% per annum, the district economy to 1.7% per annum.
- ✓ The local economies grew as follows, Merafong City -1.1%, Mogale City 4.0%, Randfontein 2.5% and Westonaria -2.9%.

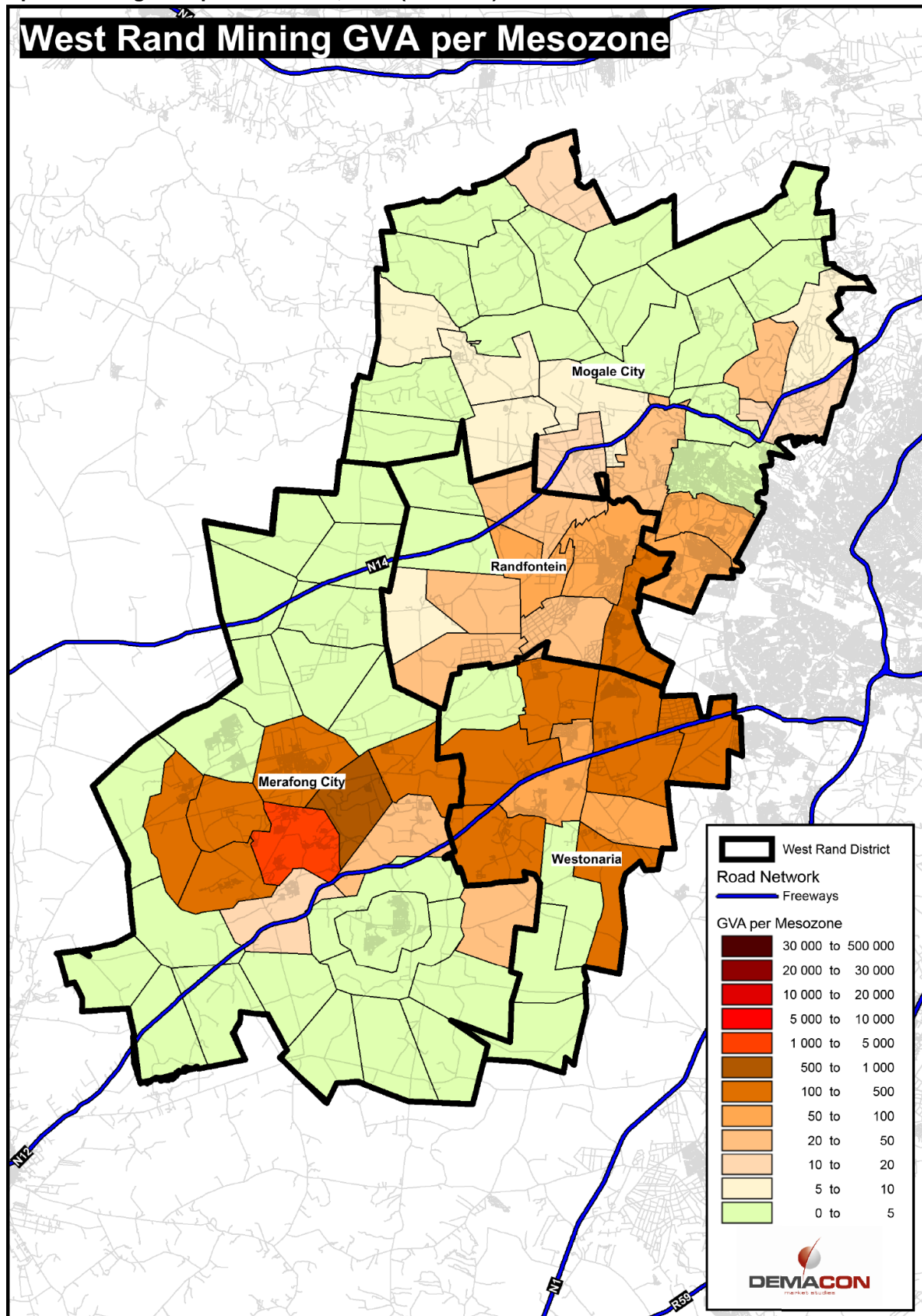
5.7.1 WEST RAND DISTRICT GEO-SPATIAL GVA DISTRIBUTION

The subsequent set of maps illustrates the GVA by mesozone for the various economic sectors as reflected above.

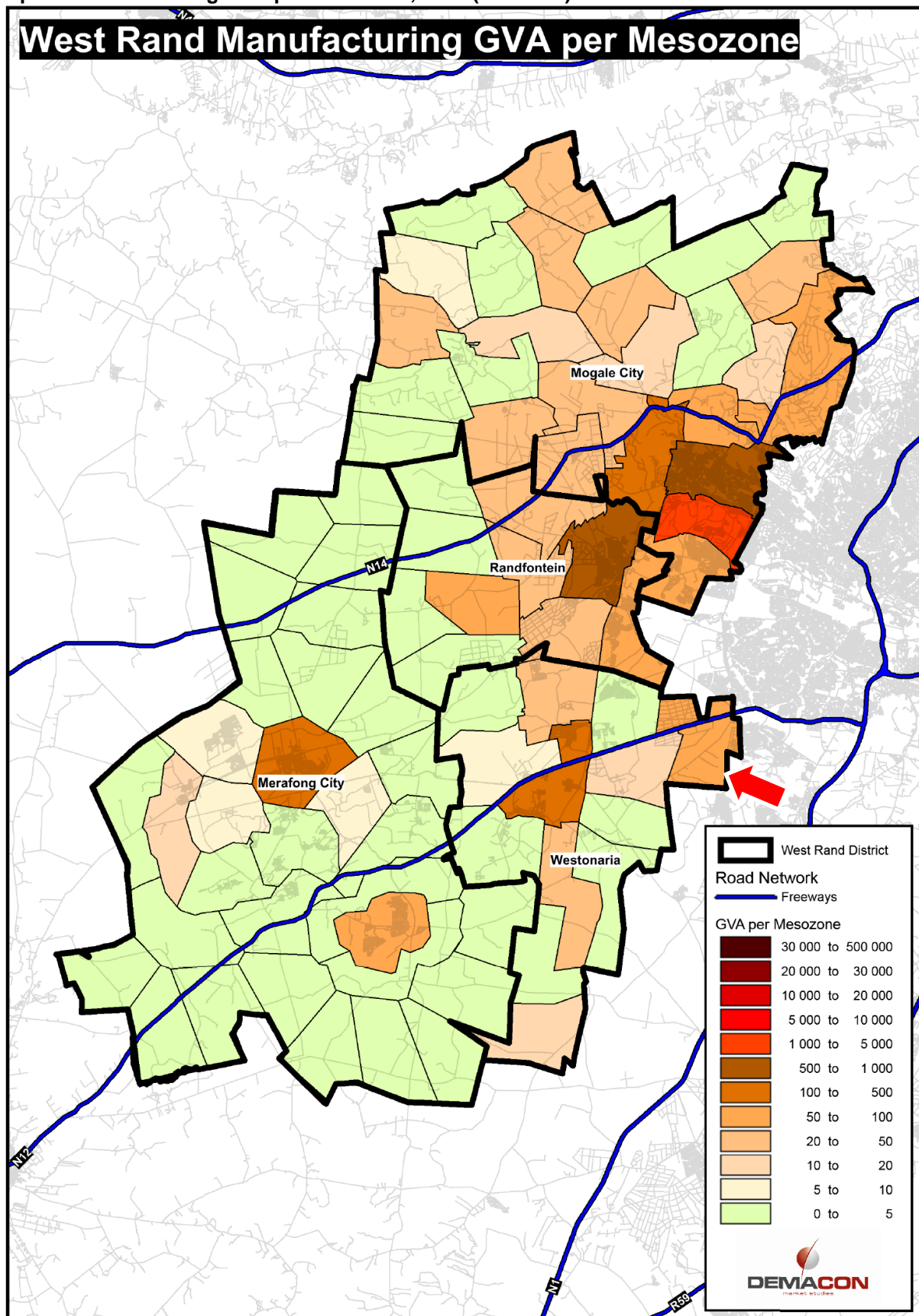
Map 5.6: Agriculture GVA per Mesozone, 2010 (R/million)



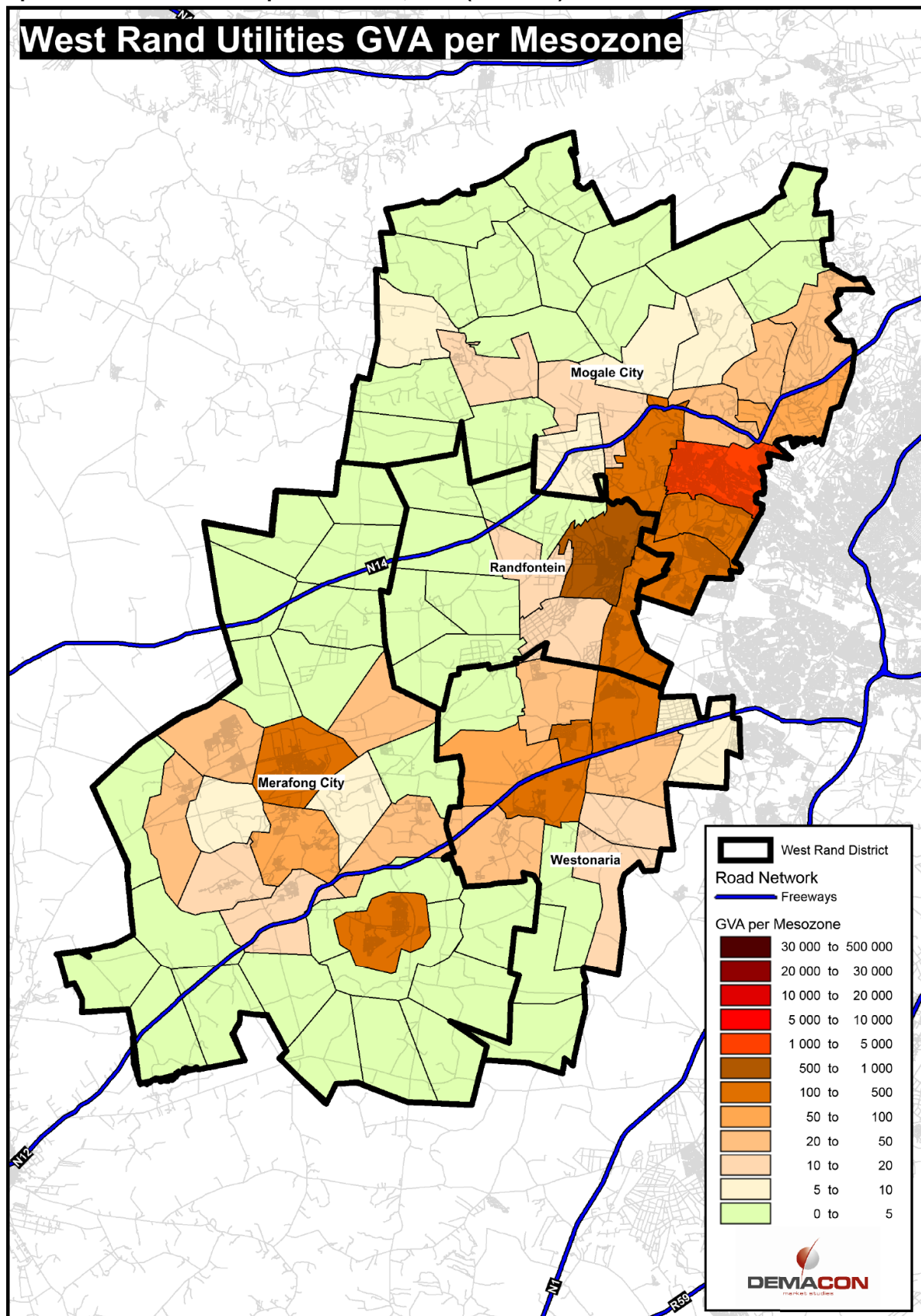
Map 5.7: Mining GVA per Mesozone, 2010 (R/million)



Map 5.8: Manufacturing GVA per Mesozone, 2010 (R/million)

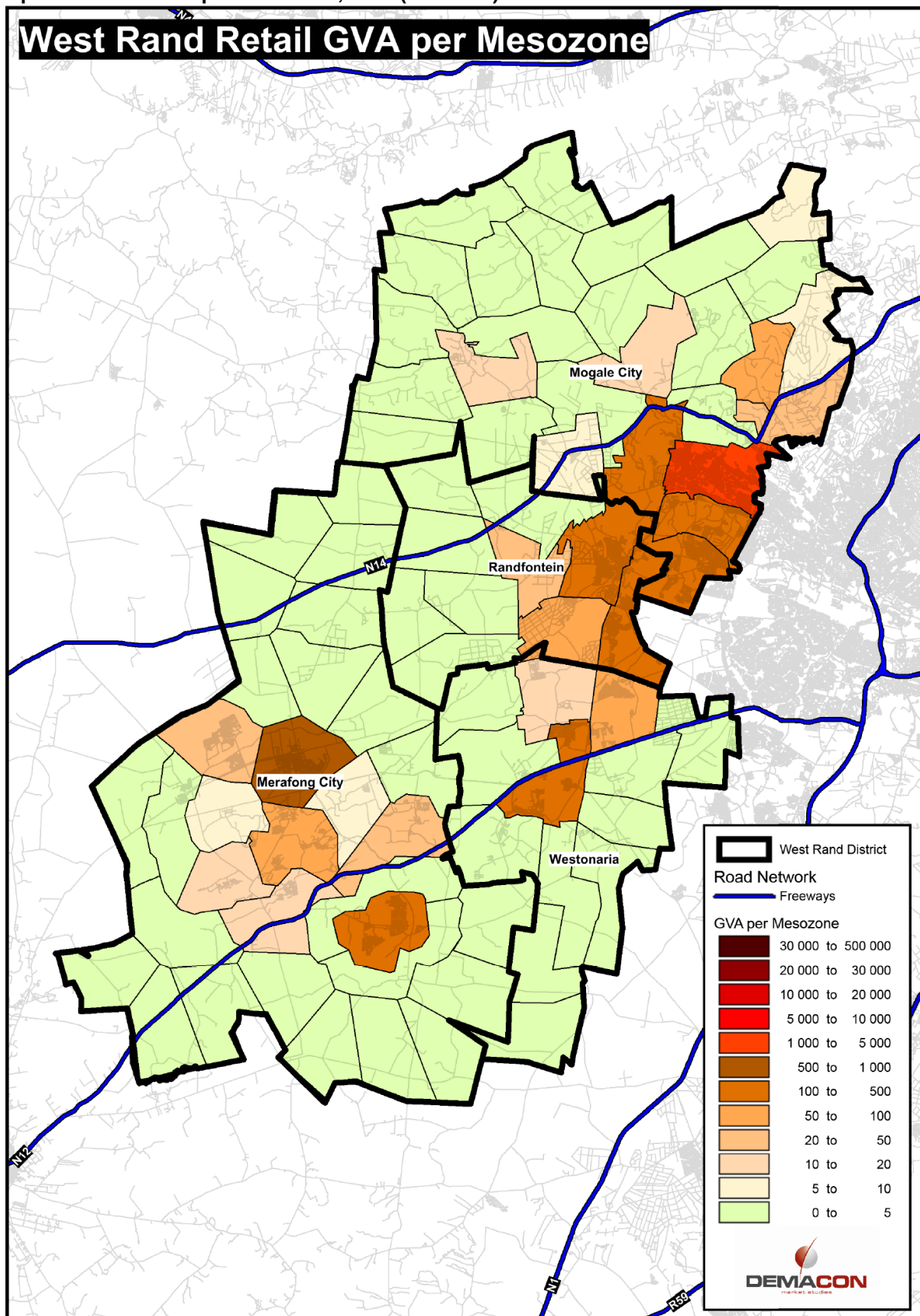


Map 5.9: Infrastructure GVA per Mesozone, 2010 (R/million)

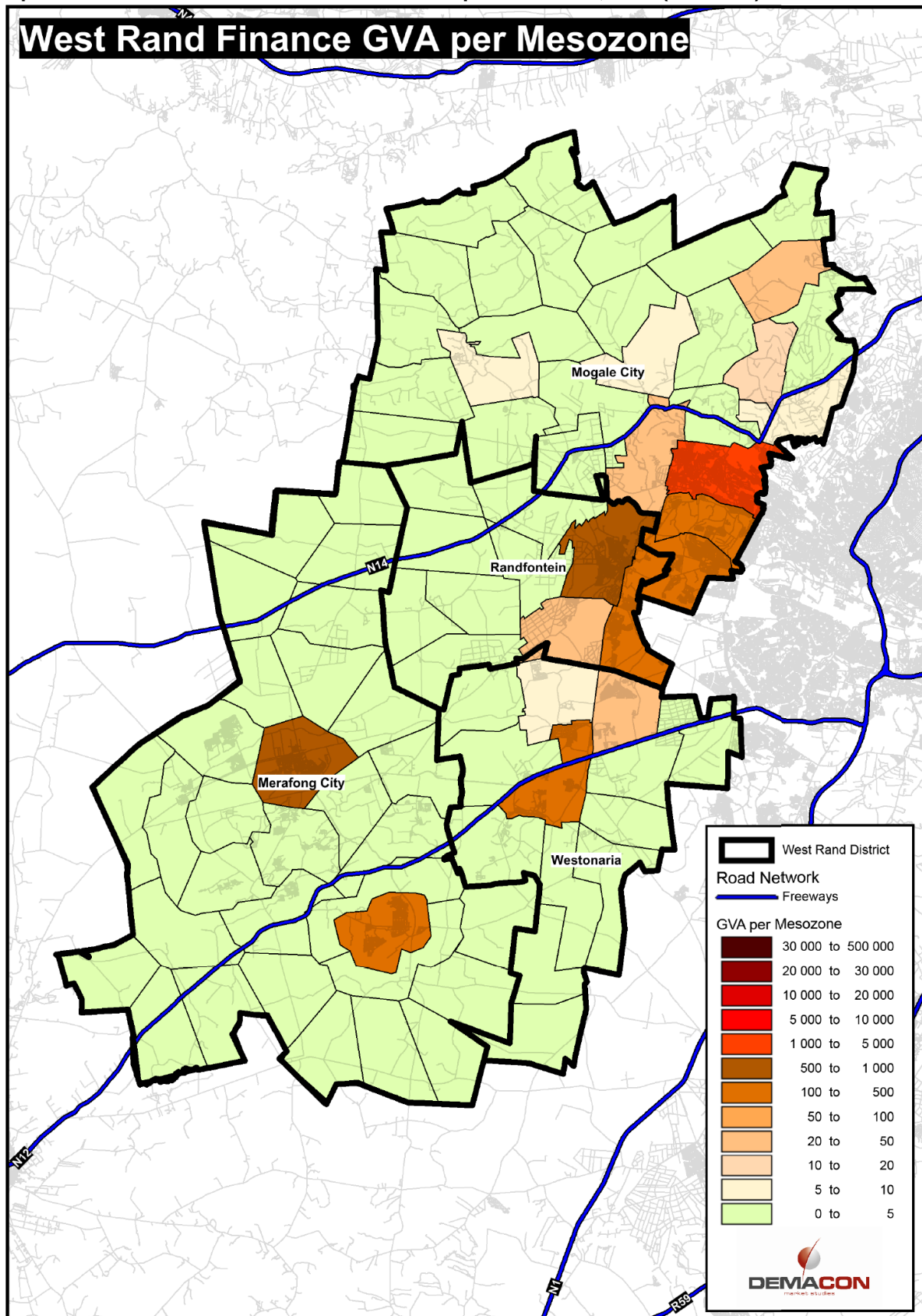


Note: Infrastructure include the Construction, Utilities and Transport and Communication Sectors

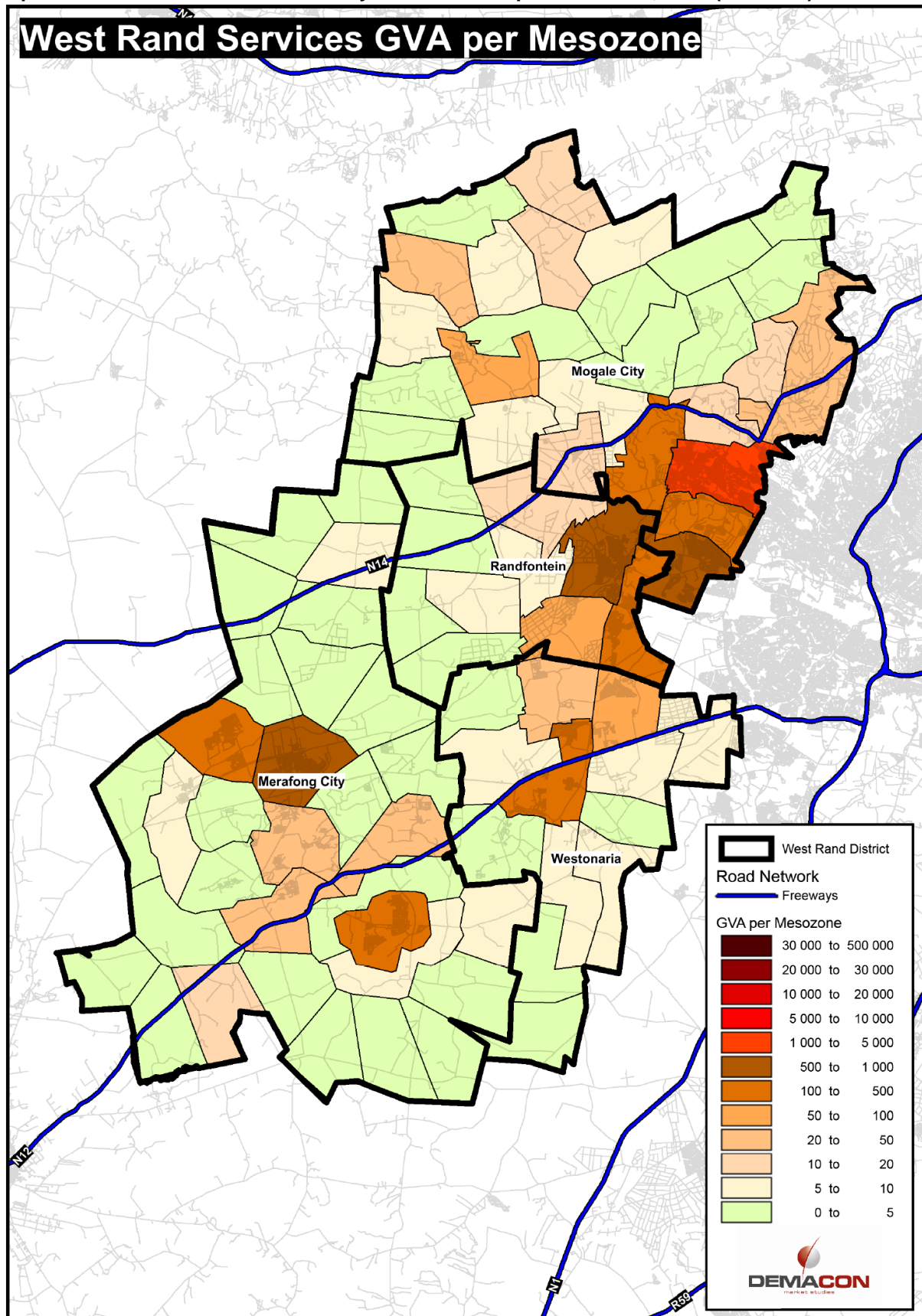
Map 5.10: Trade GVA per Mesozone, 2010 (R/million)



Map 5.11: Business and Financial Services GVA per Mesozone, 2010 (R/million)

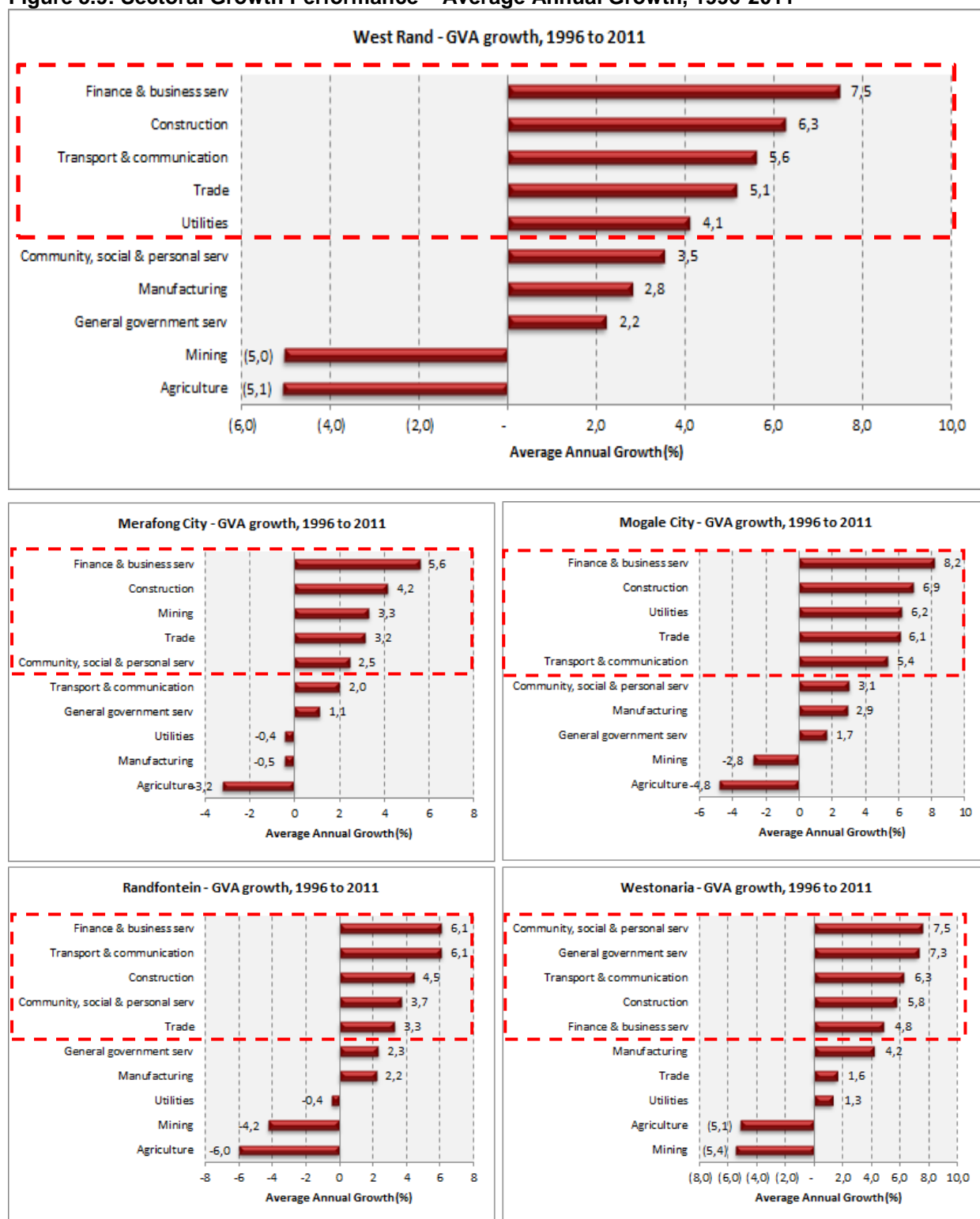


Map 5.12: Government and Community Services GVA per Mesozone, 2010 (R/million)



5.7.2 SECTORAL GROWTH PERFORMANCE (GVA CONTRIBUTION)

Figure 5.9: Sectoral Growth Performance – Average Annual Growth, 1996-2011



Source: Demacon Ex. Quantec, 2013

Table 5.6: Sectoral Growth Performance, 1996 to 2011

	1996-1997	1997-1998	1998-1999	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	Average
West Rand																
Agriculture	(5,0)	(5,6)	8,2	2,1	(12,4)	6,4	(9,9)	(7,8)	2,5	(19,3)	(5,7)	2,2	(11,0)	11,5	(0,2)	(2,9)
Mining	0,3	0,6	(8,3)	(4,2)	(9,6)	(0,2)	(2,1)	(4,3)	(3,7)	(17,2)	(1,4)	(25,4)	(14,6)	24,6	(16,2)	(5,5)
Manufacturing	3,7	0,5	(0,0)	8,2	3,5	4,9	0,1	5,2	6,3	6,6	4,8	3,0	(12,8)	5,6	2,9	2,8
Utilities	2,4	(8,7)	0,0	0,6	(3,3)	8,1	8,4	10,8	10,4	7,6	8,6	1,5	2,1	6,3	3,8	3,9
Construction	3,6	(2,2)	(3,8)	16,0	2,1	12,4	10,2	7,7	9,9	8,8	13,3	7,3	5,4	1,0	0,8	6,2
Trade	3,1	3,6	9,8	10,4	1,5	4,9	3,7	5,7	7,3	6,0	5,5	1,6	(2,5)	6,0	5,8	4,8
Transport & communication	7,8	3,5	3,7	9,8	4,2	11,1	6,2	6,3	5,0	6,1	7,0	5,8	(0,7)	1,9	2,3	5,3
Finance & business serv	5,8	4,3	6,2	4,9	7,8	10,2	4,1	6,5	5,2	10,9	8,2	8,9	1,3	1,8	3,8	6,0
Community, social & personal serv	3,6	8,8	7,1	7,6	4,7	5,1	6,8	2,2	4,3	5,3	5,8	4,5	(1,1)	0,3	3,6	4,6
General government serv	0,7	(0,4)	(0,2)	(0,7)	(0,1)	2,3	4,3	2,5	4,8	3,3	4,2	6,1	3,8	3,5	5,1	2,6
Merafong City																
Agriculture	1,6	(23,5)	(1,8)	45,6	(19,6)	23,4	5,1	5,2	16,6	(14,3)	3,4	20,9	0,0	8,5	1,7	4,9
Mining	(3,0)	(10,3)	(5,2)	(12,9)	(0,9)	(2,3)	9,9	(2,5)	(9,8)	(16,0)	0,5	(26,6)	(13,6)	25,1	(17,7)	(5,7)
Manufacturing	6,0	(0,7)	3,3	11,4	4,1	7,2	(5,5)	4,4	7,0	4,8	5,4	3,7	(8,2)	3,6	1,3	3,2
Utilities	(0,7)	(14,0)	(14,4)	(0,4)	2,3	8,0	14,1	10,2	15,0	6,0	10,3	0,2	2,5	2,6	1,5	2,9
Construction	0,7	28,7	(22,7)	6,5	13,0	16,3	(2,5)	6,7	12,3	9,1	15,5	9,6	3,4	(3,6)	(0,9)	6,1
Trade	1,2	3,1	4,7	9,3	(5,1)	5,0	2,6	7,0	8,9	6,9	6,1	2,4	(4,2)	2,2	5,0	3,7
Transport & communication	8,9	6,3	(0,2)	6,0	4,7	11,8	6,9	2,3	2,7	5,4	3,5	5,6	(3,9)	1,1	1,9	4,2
Finance & business serv	2,7	(0,2)	5,4	(5,5)	6,7	(1,7)	0,6	2,8	7,0	2,3	4,8	1,1	(4,5)	(0,2)	1,0	1,5
Community, social & personal serv	11,8	14,8	12,8	12,4	8,6	6,1	7,4	2,6	3,4	5,4	5,3	3,3	(1,0)	(0,8)	4,1	6,4
General government serv	8,2	12,3	10,7	8,2	6,6	5,4	3,0	1,9	4,2	2,8	3,9	3,0	3,5	5,9	9,0	5,9
Mogale City																
Agriculture	(5,6)	(1,9)	10,5	(2,6)	(10,7)	3,9	(12,3)	(10,5)	(0,8)	(21,0)	(8,8)	(5,1)	(16,5)	11,0	(1,3)	(4,8)
Mining	(10,4)	(4,9)	(13,5)	(11,1)	(13,3)	1,2	(3,4)	3,2	14,5	(3,7)	1,3	(1,3)	(3,1)	1,9	1,1	(2,8)
Manufacturing	4,2	1,2	0,8	8,6	3,5	5,3	(0,1)	4,6	6,0	6,5	4,8	3,2	(13,8)	6,2	3,2	2,9
Utilities	0,4	(10,3)	0,2	(0,9)	(4,6)	12,7	12,8	17,2	15,4	13,1	12,7	5,6	5,1	9,0	5,3	6,2
Construction	3,6	(7,6)	(0,2)	17,4	0,7	12,6	13,9	9,3	11,2	10,2	14,4	8,4	7,2	1,9	1,2	6,9
Trade	3,9	4,3	12,0	11,4	4,2	6,0	5,0	6,8	8,0	6,9	6,5	2,5	(1,1)	8,6	6,8	6,1
Transport & communication	6,5	2,2	3,7	9,3	3,4	10,7	6,2	7,5	6,1	6,8	8,1	6,5	0,5	2,5	1,2	5,4
Finance & business serv	6,8	6,6	6,3	9,4	7,9	15,2	6,6	9,7	7,0	15,1	9,4	11,8	3,7	2,8	4,8	8,2
Community, social & personal serv	(0,9)	4,9	3,2	3,9	1,3	3,8	5,7	1,3	4,6	4,9	6,0	5,0	(1,5)	0,9	2,8	3,1
General	(0,9)	(2,5)	(2,2)	(2,6)	(1,8)	1,3	4,1	2,3	4,5	3,1	3,9	6,3	3,6	2,6	3,8	1,7

government serv																
	1996-1997	1997-1998	1998-1999	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	Average
Randfontein																
Agriculture	(9,0)	(5,0)	5,5	(6,9)	(12,0)	3,1	(14,1)	(11,3)	(2,6)	(19,6)	(8,5)	(6,4)	(16,8)	16,0	(1,7)	(6,0)
Mining	7,4	14,6	(5,6)	4,3	(12,7)	1,2	(10,6)	(5,7)	2,0	(17,4)	(5,3)	(21,6)	(20,3)	17,2	(10,9)	(4,2)
Manufacturing	1,1	(2,5)	(4,0)	5,4	3,0	2,1	2,2	7,9	7,4	7,5	4,9	2,1	(10,8)	4,7	2,3	2,2
Utilities	6,5	(3,8)	5,0	3,1	(1,3)	(0,2)	1,7	2,2	0,7	(2,0)	(1,1)	(8,8)	(8,7)	0,1	0,1	(0,4)
Construction	3,1	(8,0)	(0,9)	16,0	(1,2)	9,6	10,0	5,6	6,9	6,6	10,3	4,1	2,9	1,2	0,8	4,5
Trade	2,0	1,9	9,2	8,9	1,4	3,3	2,7	3,7	5,5	4,5	3,7	(0,1)	(3,4)	2,7	3,8	3,3
Transport & communication	9,7	4,2	6,6	12,9	5,4	11,8	6,0	6,8	4,9	5,8	7,5	5,0	(0,5)	1,6	3,7	6,1
Finance & business serv	6,5	4,4	6,3	8,4	8,4	13,3	3,3	4,5	0,8	11,3	9,3	9,7	1,0	0,7	3,6	6,1
Community, social & personal serv	(0,5)	5,8	3,9	4,7	2,4	4,7	6,6	2,5	5,3	5,3	6,1	5,5	(1,0)	1,2	3,4	3,7
General government serv	0,5	(1,2)	(1,1)	(1,6)	(1,0)	1,9	4,5	2,6	4,8	3,4	4,2	6,6	3,9	3,1	4,4	2,3
Westonaria																
Agriculture	(2,7)	0,6	13,0	(1,4)	(11,4)	1,0	(15,8)	(15,3)	(6,6)	(26,3)	(14,8)	(12,1)	(25,5)	42,3	(2,3)	(5,1)
Mining	4,7	10,9	(10,9)	3,3	(15,5)	1,4	(11,3)	(6,9)	0,1	(20,3)	(3,2)	(28,9)	(17,5)	31,8	(19,2)	(5,4)
Manufacturing	10,3	7,8	5,5	12,7	5,2	8,5	(0,7)	2,0	4,9	5,7	4,3	3,3	(14,4)	5,1	2,5	4,2
Utilities	7,1	(5,9)	6,3	1,2	(10,4)	13,5	0,2	3,3	0,8	0,8	1,0	(1,7)	0,5	2,1	0,9	1,3
Construction	11,9	(0,4)	6,8	23,6	2,9	10,9	9,0	3,1	4,2	3,4	7,5	1,4	(0,5)	1,4	0,9	5,8
Trade	5,5	4,9	11,5	10,3	1,1	1,4	(0,6)	(0,4)	1,0	0,1	(1,1)	(4,8)	(7,9)	1,5	1,7	1,6
Transport & communication	12,0	5,3	8,8	17,4	7,8	11,3	5,3	6,6	2,7	2,9	5,2	1,6	(3,6)	(0,7)	11,8	6,3
Finance & business serv	16,2	10,8	11,3	11,4	8,7	11,7	(0,4)	(1,6)	(4,5)	1,4	4,2	2,0	(3,6)	1,9	2,8	4,8
Community, social & personal serv	5,9	12,7	9,9	10,0	8,0	8,9	10,2	6,2	7,9	7,5	7,8	7,6	1,3	2,6	6,7	7,5
General government serv	9,6	6,9	6,4	5,1	5,1	6,9	8,9	6,2	7,9	6,2	6,7	9,1	6,5	7,2	10,5	7,3

Source: Demacon Ex. Quantec, 2013

5.7.3 MANUFACTURING SECTOR GROWTH PERFORMANCE (GVA CONTRIBUTION)

Table 5.7: Manufacturing Sectoral Growth Performance, 1996 to 2011

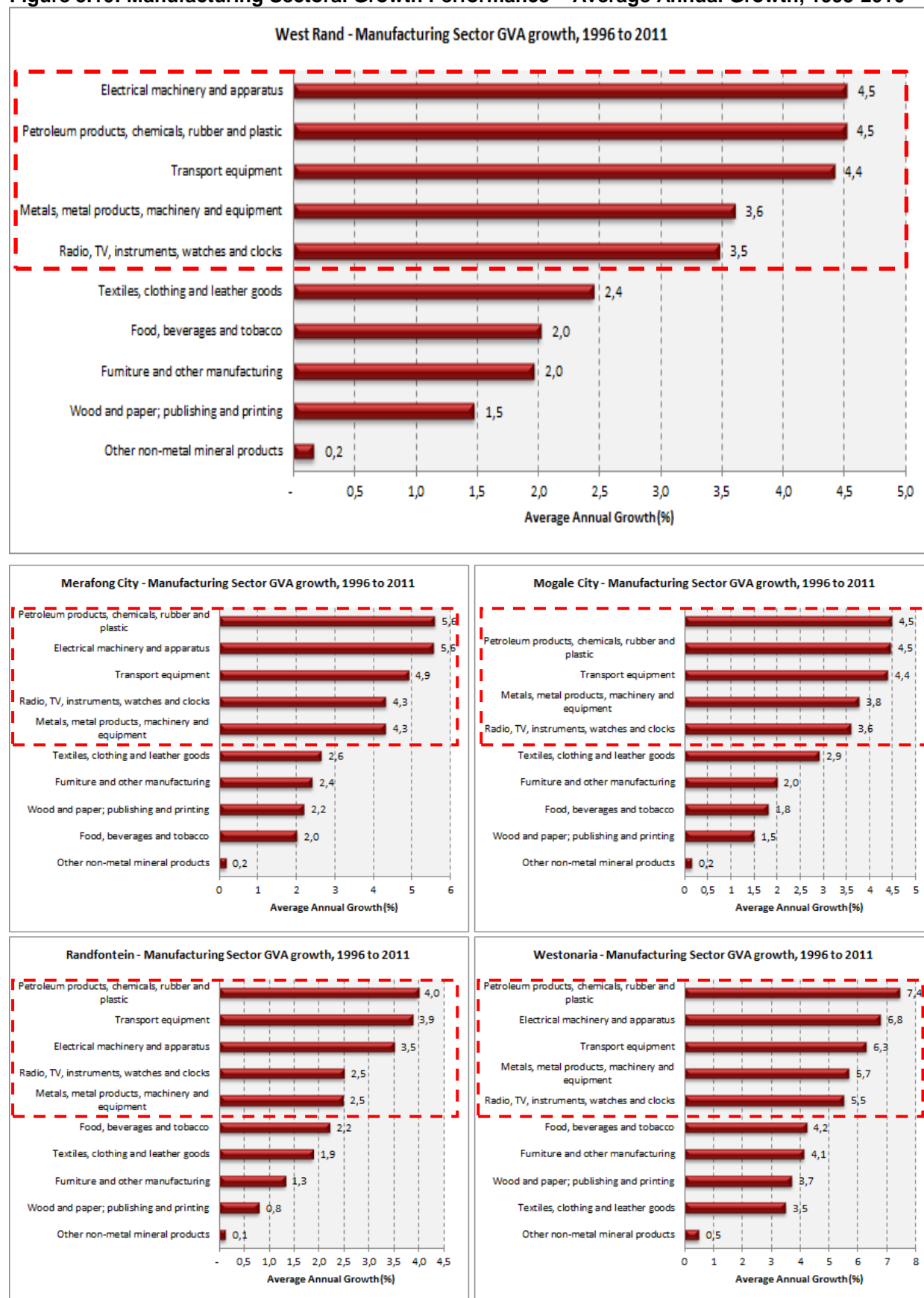
	1996-1997	1997-1998	1998-1999	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	Average
West Rand																
Manufacturing	3,7	0,5	(0,0)	8,2	3,5	4,9	0,1	5,2	6,3	6,6	4,8	3,0	(12,8)	5,6	2,9	2,8
Food, beverages and tobacco	2,6	(3,6)	(3,2)	7,0	4,6	(2,2)	(0,1)	5,2	6,1	5,3	3,4	(0,6)	(5,4)	5,5	5,7	2,0
Textiles, clothing and leather goods	6,1	(5,6)	(5,2)	1,4	(3,3)	11,5	1,9	19,3	(0,9)	4,9	8,8	10,5	(2,0)	5,5	(16,3)	2,4
Wood and paper; publishing and printing	5,3	3,8	(1,3)	7,3	(2,1)	1,9	(2,6)	3,6	2,1	2,7	3,5	1,4	(13,4)	9,3	0,6	1,5
Petroleum products, chemicals, rubber and plastic	2,8	13,8	8,4	14,3	5,6	2,5	(1,7)	6,1	8,0	7,6	4,3	(1,0)	(7,7)	2,9	1,5	4,5
Other non-metal mineral products	1,2	(3,4)	(8,4)	2,9	(0,1)	12,6	(3,9)	(4,1)	3,3	5,1	4,0	(0,3)	(27,4)	11,0	9,9	0,2
Metals, metal products, machinery and equipment	5,6	(5,6)	(0,4)	4,9	2,5	14,4	4,4	7,4	5,7	7,5	7,0	8,4	(22,1)	10,2	3,9	3,6
Electrical machinery and apparatus	12,1	7,3	5,2	8,8	(0,9)	0,7	(3,2)	1,4	16,6	11,1	5,3	5,8	(5,7)	3,5	(0,2)	4,5
Radio, TV, instruments, watches and clocks	9,9	(3,2)	(5,5)	3,9	(12,9)	16,3	4,4	8,6	7,9	11,5	4,0	4,0	(7,0)	4,1	6,1	3,5
Transport equipment	(1,3)	4,0	1,2	16,6	14,2	5,0	(4,1)	6,4	13,7	9,4	6,8	2,2	(11,8)	0,7	3,1	4,4
Furniture and other manufacturing	4,0	1,8	(0,2)	7,8	3,9	0,9	1,3	1,4	4,5	4,9	2,8	6,5	(11,0)	0,0	0,7	2,0
Merafong City																
Manufacturing	6,0	(0,7)	3,3	11,4	4,1	7,2	(5,5)	4,4	7,0	4,8	5,4	3,7	(8,2)	3,6	1,3	3,2
Food, beverages and tobacco	6,3	(1,3)	3,0	11,6	2,6	(1,5)	(7,3)	1,3	4,4	2,8	4,0	1,1	(6,6)	6,3	3,8	2,0
Textiles, clothing and leather goods	8,5	(3,5)	1,8	9,7	(2,5)	9,5	(1,0)	4,1	(5,1)	1,6	6,8	6,7	10,1	8,3	(15,4)	2,6
Wood and paper; publishing and printing	10,0	3,9	2,2	10,5	0,7	5,0	(7,2)	4,3	3,2	0,8	3,7	0,9	(11,0)	10,8	(5,0)	2,2
Petroleum products, chemicals, rubber and plastic	6,1	11,5	13,1	20,0	6,2	2,1	(7,5)	8,5	9,7	4,8	4,7	0,5	(0,4)	4,2	0,4	5,6
Other non-metal mineral products	2,3	(4,3)	(5,4)	6,2	0,8	13,4	(6,3)	(3,3)	4,4	3,7	4,4	(0,3)	(22,5)	4,1	5,3	0,2
Metals, metal products, machinery and equipment	7,8	(6,3)	3,3	8,5	5,5	15,5	(3,9)	8,7	7,6	6,6	7,4	7,4	(10,2)	2,9	3,8	4,3
Electrical machinery and apparatus	14,1	7,5	10,1	13,1	0,7	1,3	(6,2)	2,1	17,5	9,9	6,0	6,5	1,5	2,8	(3,5)	5,6
Radio, TV, instruments, watches and clocks	13,6	0,0	1,8	8,6	(13,6)	11,0	(0,6)	9,4	9,3	9,7	5,3	5,6	0,4	0,7	3,6	4,3
Transport equipment	0,1	1,1	3,0	17,0	16,6	10,1	(6,0)	6,4	14,0	8,3	7,4	2,8	(6,2)	(2,2)	1,1	4,9
Furniture and other manufacturing	5,2	0,7	4,2	11,5	3,6	1,0	(2,1)	1,8	5,6	2,4	2,5	7,1	(6,3)	(0,1)	(1,0)	2,4

	1996-1997	1997-1998	1998-1999	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	Average
Mogale City																
Manufacturing	4,2	1,2	0,8	8,6	3,5	5,3	(0,1)	4,6	6,0	6,5	4,8	3,2	(13,8)	6,2	3,2	2,9
Food, beverages and tobacco	4,3	(2,3)	(1,9)	7,6	3,3	(1,9)	(2,2)	3,0	4,7	4,7	3,4	0,2	(8,8)	6,9	6,3	1,8
Textiles, clothing and leather goods	6,3	(5,1)	(4,1)	3,1	(3,8)	11,1	4,6	19,8	(1,2)	4,9	9,0	11,0	(2,5)	6,0	(15,4)	2,9
Wood and paper; publishing and printing	5,4	3,7	(0,8)	7,7	(2,3)	1,5	(2,3)	3,3	1,5	2,7	3,5	1,5	(12,7)	8,7	1,2	1,5
Petroleum products, chemicals, rubber and plastic	2,4	13,9	8,6	14,1	5,9	3,8	(2,1)	5,3	7,8	7,3	4,0	(1,5)	(7,6)	2,9	2,3	4,5
Other non-metal mineral products	0,7	(4,4)	(9,6)	1,7	(0,5)	12,3	(3,8)	(4,0)	3,1	5,3	4,0	(0,2)	(28,2)	14,0	11,9	0,2
Metals, metal products, machinery and equipment	6,1	(5,5)	0,0	5,1	2,7	14,6	5,6	7,3	5,4	7,4	7,0	9,0	(23,2)	11,6	3,6	3,8
Electrical machinery and apparatus	12,4	7,2	5,1	8,6	(0,8)	0,8	(3,2)	1,3	16,3	11,1	5,3	5,8	(6,3)	3,6	0,1	4,5
Radio, TV, instruments, watches and clocks	9,8	(3,9)	(5,9)	4,1	(12,1)	18,1	4,8	8,4	7,6	11,5	3,8	3,9	(7,0)	4,7	6,3	3,6
Transport equipment	(1,0)	3,8	1,0	16,3	14,4	5,3	(4,0)	6,3	13,4	9,5	6,8	2,2	(12,3)	0,7	3,4	4,4
Furniture and other manufacturing	4,5	1,9	0,1	7,8	4,1	1,0	1,1	1,2	4,3	4,9	2,8	6,7	(11,4)	0,2	1,0	2,0
Randfontein																
Manufacturing	1,1	(2,5)	(4,0)	5,4	3,0	2,1	2,2	7,9	7,4	7,5	4,9	2,1	(10,8)	4,7	2,3	2,2
Food, beverages and tobacco	(0,5)	(6,2)	(6,4)	5,2	6,6	(2,9)	4,1	9,1	8,4	6,5	3,3	(2,0)	(0,8)	3,7	5,1	2,2
Textiles, clothing and leather goods	4,7	(7,4)	(8,4)	(2,9)	(3,2)	12,2	(0,4)	24,0	0,5	5,6	9,3	10,8	(3,5)	4,8	(18,0)	1,9
Wood and paper; publishing and printing	2,3	2,6	(4,8)	3,9	(3,4)	1,2	(1,3)	4,7	3,8	3,6	3,6	1,3	(15,6)	8,3	1,8	0,8
Petroleum products, chemicals, rubber and plastic	2,4	12,5	5,1	12,8	3,7	(2,7)	0,9	9,2	8,9	9,5	5,2	0,2	(9,9)	2,2	(0,4)	4,0
Other non-metal mineral products	(2,3)	(5,9)	(12,6)	(1,2)	(1,9)	11,0	(2,6)	(2,7)	4,3	6,0	4,1	(0,4)	(28,7)	18,9	15,9	0,1
Metals, metal products, machinery and equipment	2,6	(7,1)	(4,1)	2,0	0,5	13,1	3,8	7,7	6,3	8,4	7,1	7,1	(23,5)	9,1	4,2	2,5
Electrical machinery and apparatus	8,7	5,1	1,1	5,4	(2,9)	(0,5)	(2,0)	2,0	17,5	12,0	5,4	5,4	(7,5)	2,8	0,1	3,5
Radio, TV, instruments, watches and clocks	8,4	(2,5)	(6,7)	1,5	(16,2)	10,1	4,1	9,2	9,1	12,0	4,6	4,3	(8,5)	2,4	5,7	2,5
Transport equipment	(4,0)	4,8	(0,3)	16,5	11,5	0,2	(3,8)	7,6	14,9	10,1	6,8	1,8	(12,5)	1,9	2,3	3,9
Furniture and other manufacturing	1,3	0,7	(3,6)	5,5	2,8	0,6	3,3	2,1	5,2	6,3	3,1	5,8	(11,5)	(1,2)	(0,7)	1,3

	1996-1997	1997-1998	1998-1999	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	Average
Westonaria																
Manufacturing	10,3	7,8	5,5	12,7	5,2	8,5	(0,7)	2,0	4,9	5,7	4,3	3,3	(14,4)	5,1	2,5	4,2
Food, beverages and tobacco	10,0	5,4	5,2	13,7	7,6	(0,2)	(0,7)	3,5	4,9	3,8	2,6	0,0	(4,2)	4,8	6,9	4,2
Textiles, clothing and leather goods	13,0	3,5	3,4	9,5	(1,3)	11,6	1,1	5,8	(3,5)	2,3	5,5	7,0	2,6	4,5	(12,4)	3,5
Wood and paper; publishing and printing	15,3	11,7	4,5	11,8	2,3	6,6	(4,7)	2,4	1,1	0,9	2,2	0,3	(17,3)	22,5	(3,8)	3,7
Petroleum products, chemicals, rubber and plastic	11,7	25,2	17,5	22,2	9,0	0,4	0,9	6,6	7,4	8,0	4,3	1,2	(5,9)	4,9	(1,6)	7,4
Other non-metal mineral products	7,1	4,5	(2,4)	8,2	2,0	14,1	(3,6)	(6,0)	2,3	4,8	3,5	(0,5)	(27,8)	0,1	0,9	0,5
Metals, metal products, machinery and equipment	12,0	2,4	7,3	10,5	4,9	16,6	2,8	6,1	5,2	6,7	6,4	7,9	(18,9)	8,0	7,4	5,7
Electrical machinery and apparatus	19,1	16,3	12,9	14,7	1,8	2,2	(3,1)	0,3	15,7	9,9	4,4	6,2	(4,0)	5,2	0,2	6,8
Radio, TV, instruments, watches and clocks	18,4	7,7	4,0	10,1	(12,2)	13,0	3,0	7,6	7,5	9,9	3,6	5,2	(5,0)	2,5	7,4	5,5
Transport equipment	4,5	10,7	6,9	20,5	17,7	9,0	(3,3)	4,9	12,5	8,3	5,8	2,5	(10,8)	0,5	4,6	6,3
Furniture and other manufacturing	10,2	9,7	7,1	12,8	6,3	1,8	0,5	0,2	3,8	3,5	2,0	7,1	(9,9)	2,7	4,1	4,1

Source: Demacon Ex. Quantec, 2013

Figure 5.10: Manufacturing Sectoral Growth Performance – Average Annual Growth, 1995-2010



Source: Demacon Ex. Quantec, 2013

Development Implications

- ✓ Economic growth in the local economies reflects a similar cyclical trend that correlates with growth trends experienced in the SA domestic economy over the same period of time.
- ✓ Most notable negative impacts that had a lagged effect on domestic demand and consumer expenditure include the 1997/1998 Asian Crisis (more commonly referred to as the Asian Flu), followed by record high prime lending rates of 25.5% in August 1998 and all time high exchange rates in January 2002 (R16.64:1£ and R11.61:1\$).
- ✓ The global financial crisis that erupted in 2007 and progressively spread to the real economy resulted in world output growth slowing to 3% in 2008, from 5.2% the previous year. Economic conditions continued deteriorating well into 2009, with output estimated by the International Monetary Fund (IMF) to have declined by 0.6%. As global demand waned and production levels were curtailed, world trade registered a staggering 12% contraction in 2009, according to the World Trade Organisation (WTO). This followed a dismal 2% growth in the volume of world trade in 2008.
- ✓ The global economy emerged from recession in 2010, although the pace of recovery has varied substantially across regions, and particularly at country level. Certain emerging and developing economies, especially those that managed to side-step a recession quite effectively, such as China and India, have seen a visible improvement in their growth momentum. Nevertheless, a number of emerging economies continue experiencing difficulties in resuming and sustaining higher growth trajectories.
- ✓ In South Africa, signs of recovery from the economy's first recession in 17 years gradually emerged during the last six months of 2009. Gross domestic product (GDP) expanded in real terms by 3.1% (on a quarter-on-quarter basis) in the fourth quarter of 2009, accelerating to 4.6% in the first quarter of 2010. However, economic growth slowed to 2.8% and 2.6% in the subsequent two quarters of 2010 respectively.
- ✓ Although the global economic recovery has been swifter than initially anticipated, its multi-speed characteristics have become more pronounced and the momentum has lost some steam in several advanced economies. Fiscal austerity measures in several countries, particularly in Europe, high unemployment rates and yet excessive household indebtedness underpin expectations of a slowdown, particularly in the industrialised nations, and rising concerns over the sustainability of the global economic recovery. Recently announced by the United States authorities, the second round of quantitative easing (known as QE2 and amounting to a massive US\$600 billion) reflects this uneasiness.
- ✓ The South African economy continued to report growth in economic activity during the opening six months of 2010, although there have been signs of the momentum being weaker than initially anticipated. The recovery in demand has been slow, especially from the household segment, as well as externally. After reducing inventory levels during the recession, companies eventually started rebuilding them, resulting in an upturn in production, albeit still at levels below those reached in 2008 for most economic sectors.
- ✓ The local business cycle reflects a negative trend with reference to 2007 to 2009. The local business cycle follows the national cycle closely. In the context of the national recovery - including economic growth and retail sales - local economic growth and growth in disposable income is expected to reveal a similar recovery trend since 2009.
- ✓ The latest Leading Indicator (a good indicator of near term moves in both the economy as well as the residential mortgage market) data point to appear, that of October 2011, indicating a slight increase, on a month-on-month basis - the value increasing slightly to 131.4. This bodes moderately for further improvement in growth in new residential mortgage loans and re-advances granted in the current year.
- ✓ Lower growth tempers the mood:

- A more challenging global economic backdrop emerging in recent months together with some still struggling facets within the SA economy has led us to pare back our medium term growth projections. Following our expected 3.0% y/y growth rate for 2011, we expect softer growth of 2.8% in 2012 (prior: 3.4%).
- The two-speed nature of the economy remains evident as witnessed by the resilient growth rates observed in household consumption which continues to be supported through low interest rates, a more stable labour market, and high nominal income growth. On the other hand, key supply-side sectors have taken a further worrying step back.
- In such an uncertain and concerning global economic climate, downside risks exist to our baseline GDP outlook. However we believe that the current level of policy rates is not restrictive to the country's growth outlook.
- Inflation remains on an upward trajectory and upside risks have increased since the last quarterly (in the form of currency depreciation and food prices). Inflation breached the upper 6% inflation target band in November and is expected to remain above 6% throughout next year (we forecast a peak of 6.7% in Q2 12).
- With inflation expected to remain above target for longer, and GDP muddling around the 3% mark, our view remains that the SARB is likely to keep rates unchanged until Q4 2012.
- Continued volatility in global financial markets (owing largely to the euro area crisis) is likely to continue to steer sentiment towards the rand and has resulted in our pushing our 3-6m currency forecasts weaker. We now look for the rand to average around 8.10/USD in the first half of 2012, before paring back some of its losses in the second half of the year (H2 average of 7.80). Notwithstanding short term volatility, we continue to view rand fundamentals as supportive (portfolio flows, current account deficit, commodity prices etc.).
- ✓ Global expectations for 2012 reflect much of the sameness as in 2011, another year of substantial market fluctuations. Nothing obvious pops up to suggest that this will change radically in 2012.

Table 5.8: Macroeconomic Fundamentals

Economic Indicator	2012 forecast	Change on Previous Year	Implications
GDP	2.8%	↓	✓ Shaky global economic climate impacts on local economic growth. It is anticipated to recover towards 2013 as global conditions stabilise.
CPI	6.5%	↑	✓ Remains on its upward trajectory. Inflation breached the 6% inflation target band in November 2011 and it is anticipated to remain there for the whole of 2012.
Repo Rate	6.0%	→	✓ It is anticipated that the SARB will likely keep rates unchanged up until the fourth quarter of 2012.
Prime Rate	9.5%	→	✓ Anticipated that banks will respond to changes within the repo rate.
USD/ ZAR	7.94	→	✓ Notwithstanding short term volatility, economists still view the rand fundamentally as supportive.
House Price Growth	Nominal 2% Real -3%	→	<ul style="list-style-type: none"> ✓ Affordable segment outperform higher priced segments ✓ Increased transport costs in terms of increased fuel prices and looming tolls support demand in close proximity of key business nodes ✓ Smaller homes are more popular due to lower running costs.

As in 2011 it is anticipated that the demand side will reflect increased signs of recovery in terms of retail sales and house price growth (although at a slower pace) albeit the supply side is still lagging with reference to specific urban property markets – these are classical signs of economic recovery after a recession. During this period development tends to be demand driven (followed in subsequent boom years by an increasing amount of supply led development).

5.8 SYNTHESIS

This chapter provided an assessment of the district and local economies in the context of the provincial and national economies. Table 5.30 provides a summary of the economic profile of the West Rand District Municipality and the related four local municipalities.

Table 5.9: Economic Sector and Production by Area Profile Summary

Economic Characteristic	Variable				
	West Rand District Economy	Merafong City Local Economy	Mogale City Local Economy	Randfontein Local Economy	Westonaria Local Economy
District / Local Economy contribution to Gauteng Province / West Rand District GVA 2011	✓ 5.2%	✓ 20.1%	✓ 52.4%	✓ 17.9%	✓ 9.5%
Local GVA Pillars 2011	✓ Finance and Business Services – 19.2% ✓ General Government Services – 17.0% ✓ Manufacturing – 16.0% ✓ Trade – 13.9% ✓ Mining – 13.3%	✓ Mining – 29.8% ✓ Finance and Business Services – 15.8% ✓ Trade – 13.3% ✓ General Government Services – 12.2% ✓ Community, Social & Personal Services – 11.8%	✓ Finance and Business Services – 22.0% ✓ Manufacturing – 19.8% ✓ General Government Services – 18.0% ✓ Trade – 16.0% ✓ Transport and Communication – 9.4%	✓ Manufacturing – 21.6% ✓ General Government Services – 21.6% ✓ Finance and Business Services – 21.4% ✓ Trade – 11.8% ✓ Transport and Communication – 8.2%	✓ Mining – 53.4% ✓ General Government Services – 13.2% ✓ Manufacturing – 8.1% ✓ Trade – 7.0% ✓ Finance and Business Services – 7.0%
Economic Growth – Average annual growth 1996 to 2011	✓ 1.7%	✓ -1.1%	✓ 4.0%	✓ 2.5%	✓ -2.9%
GVA top growth sectors – 1996 to 2011 average annual growth	✓ Finance & business serv – 7.5% ✓ Construction – 6.3% ✓ Transport and com – 5.6% ✓ Trade – 5.1% ✓ Utilities – 4.1%	✓ Finance & business serv – 5.6% ✓ Construction – 4.2% ✓ Mining – 3.3% ✓ Trade – 3.2% ✓ Community, social & personal serv – 2.5%	✓ Finance & business serv – 8.2% ✓ Construction – 6.9 % ✓ Utilities – 6.2% ✓ Trade – 6.1% ✓ Transport & com – 5.4%	✓ Finance & business serv – 6.1 % ✓ Transport & com – 6.1% ✓ Construction – 4.5 % ✓ Community, social & personal – 3.7% ✓ Trade – 3.3%	✓ Community, social & personal – 7.5% ✓ General government – 7.3 % ✓ Transport & com – 6.3% ✓ Construction – 5.8 % ✓ Finance & business serv – 4.8 %

Source: Demacon, 2013

CHAPTER 6: WEST RAND DISTRICT CONSUMER DEMAND BASE – CONSUMER PROFILE

6.1 INTRODUCTION

This Chapter provides information on the demographic profile of the local economy. The demographic profile provide insight into the current consumer market located within the West Rand and the respective four local municipalities. The Chapter covers aspects of population size, racial distribution, population growth, impact of HIV, employment status, income and expenditure, general living standards and other socio-economic indicators.

This provides insight into the socio-economic fabric of the local municipal area and the specific settlement concentrations under investigation. Following is an overview of the Demographic / Consumer Market on a Macro, Meso and Micro level.

MACRO LEVEL

6.2 NATIONAL DEMOGRAPHIC OVERVIEW

Following is a brief summary of the national demographic trends as summarized in the Statistics South Africa (Stats SA) **2011 Mid-Year Population Estimate** of South Africa. The estimates cover all the residents of South Africa at the 2011 mid-year, and are based on the latest available information. Estimates may change as new data become available.

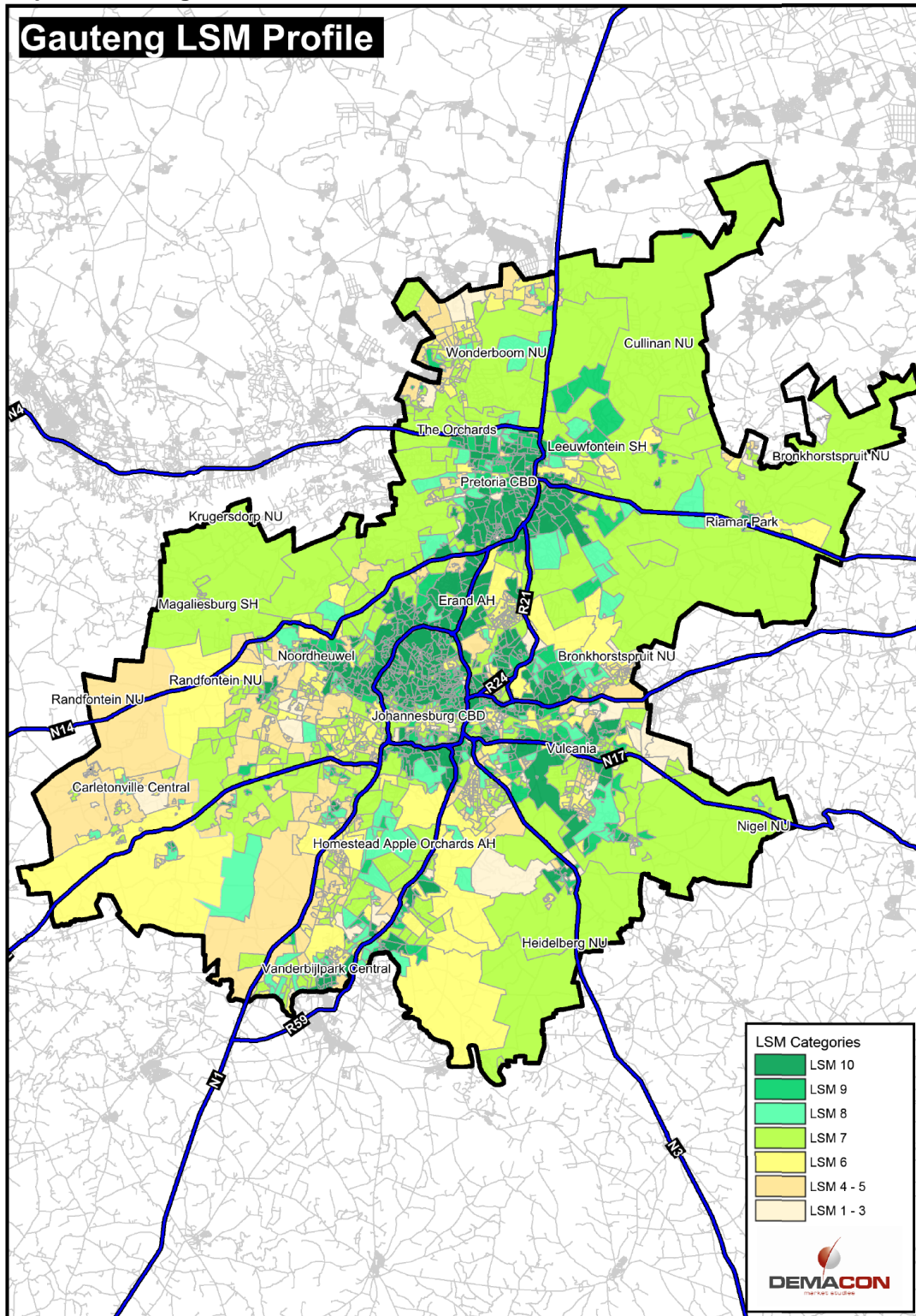
- ✓ For 2011, Stats SA estimates the mid-year population as 50,59 million.
- ✓ Approximately fifty-two per cent (approximately 26,07 million) of the population is female.
- ✓ Gauteng comprises the largest share of the South African population. Approximately 11,3 million people (22,4%) live in this province. KwaZulu-Natal is the province with the second largest population, with 10,8 million people (21,4%) living in this province. With a population of approximately 1,10 million people (2,2%), Northern Cape remains the province with the smallest share of the South African population.
- ✓ Nearly one-third (31,3%) of the population is aged younger than 15 years and approximately 7,7% (3,9 million) is 60 years or older. Of those younger than 15 years, approximately 23% (3,66 million) live in KwaZulu-Natal and 19,4% (3,07 million) live in Gauteng.
- ✓ Migration is an important demographic process in shaping the age structure and distribution of the provincial population. For the period 2006–2011 it is estimated that approximately 215 000 people will migrate from the Eastern Cape; Limpopo is estimated to experience a net out-migration of just over 140 000 people. During the same period, Gauteng and Western Cape are estimated to experience a net inflow of migrants of approximately 367 100 and 95 600, respectively.
- ✓ Life expectancy at birth for 2011 is estimated at 54,9 years for males and 59,1 years for females.
- ✓ The infant mortality rate for 2011 is estimated at 37,9 years.
- ✓ The estimated overall HIV prevalence rate is approximately 10,6%. The total number of people living with HIV is estimated at approximately 5,38 million in 2011. An estimated 16,6% of the adult population aged 15–49 years is HIV positive.
- ✓ The number of new HIV infections for 2011 among the population aged 15 years and older is estimated at 316 900.
- ✓ An estimated 63 600 new HIV infections will be among children aged 0–14 years.

MESO LEVEL

6.3 PROVINCIAL DEMOGRAPHIC OVERVIEW

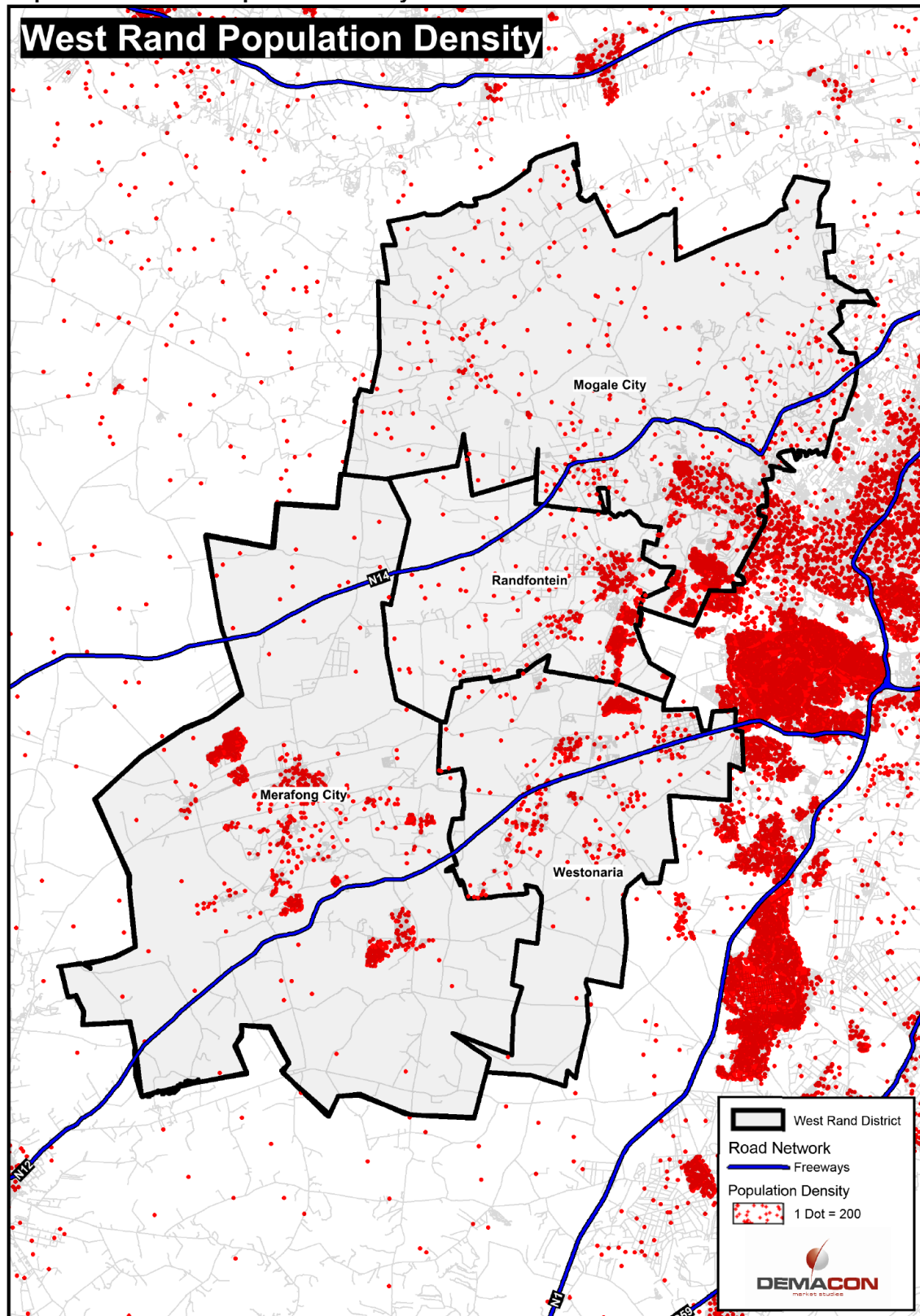
According to Statistics South Africa (Stats SA), in 2011 Gauteng had a population of 11.3 million people, 136,503 more than in 2010. The provincial share of the national population numbers has steadily grown over the last ten years. The biggest concentration of higher LSM groups are situated around the economic cores i.e Pretoria CBD and Johannesburg CBD.

Map 6.1: Gauteng LSM Profile



Within Gauteng, this population is concentrated around Johannesburg (nearly 4 million), Ekurhuleni (2.5 million), and Tshwane (1.5 million). The peripheral areas like Sedibeng, West Rand and Metsweding all have a combined population less than that of Ekurhuleni.

Map 6.2: West Rand Population Density



MICRO LEVEL

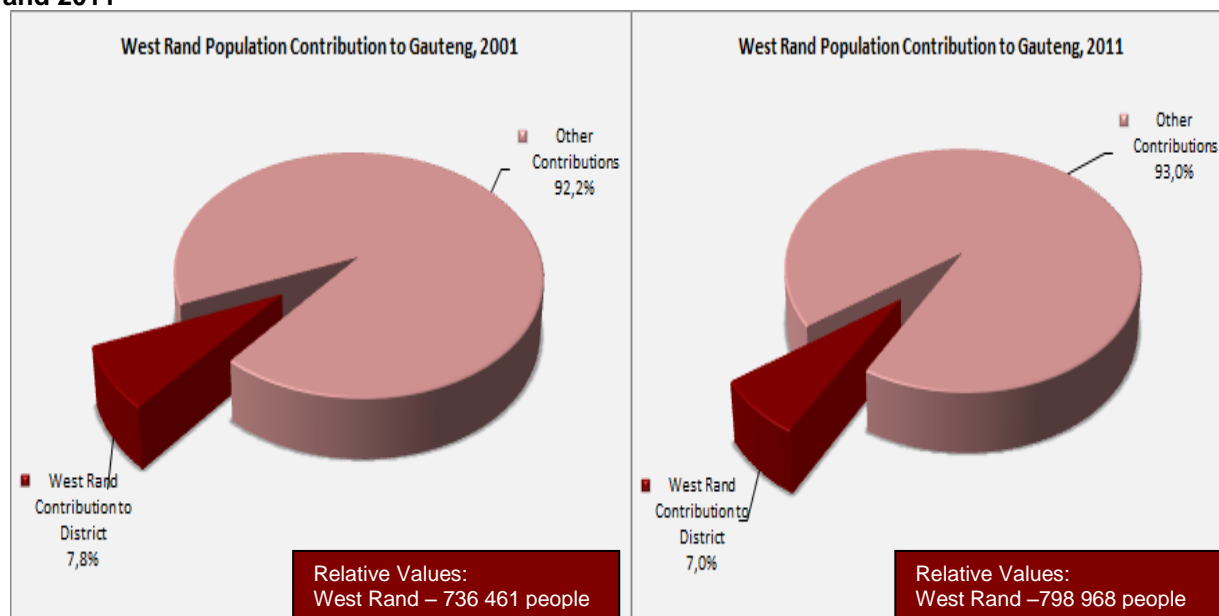
Following is an analysis of the Micro level demographic profiles of the West Rand District Municipality and the related four local municipalities.

6.4 DEMOGRAPHIC PROFILE OF ECONOMIES

Subsequent paragraphs, tables and figures provide demographic profiles of the local economy.

6.4.1 POPULATION, HOUSEHOLDS AND HOUSEHOLD SIZE

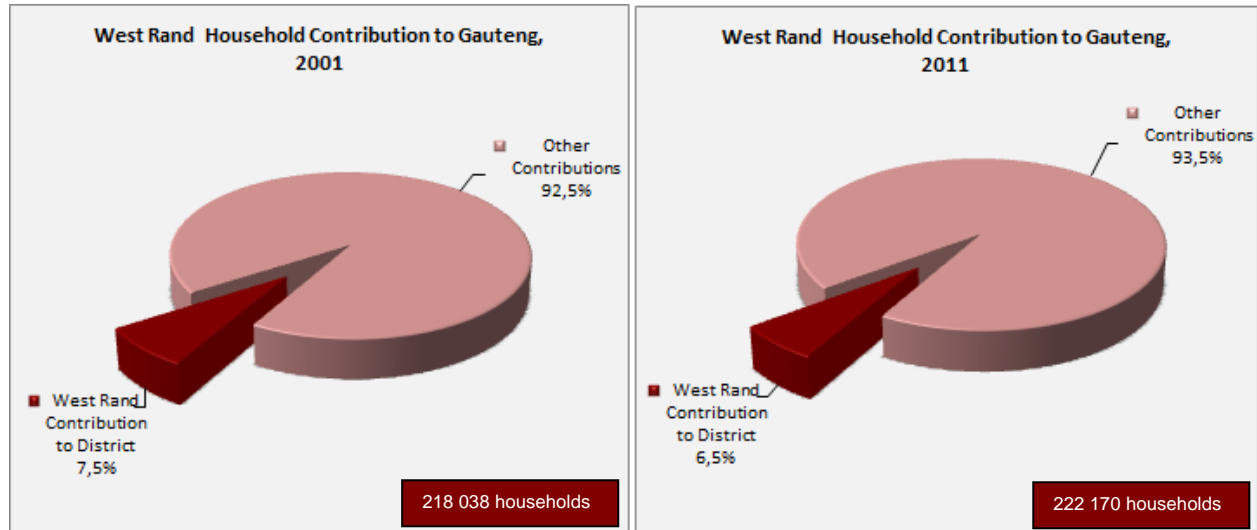
Figure 6.1: West Rand Population Size with reference to the Gauteng Province Economy, 2001 and 2011



Source: Demacon, 2013

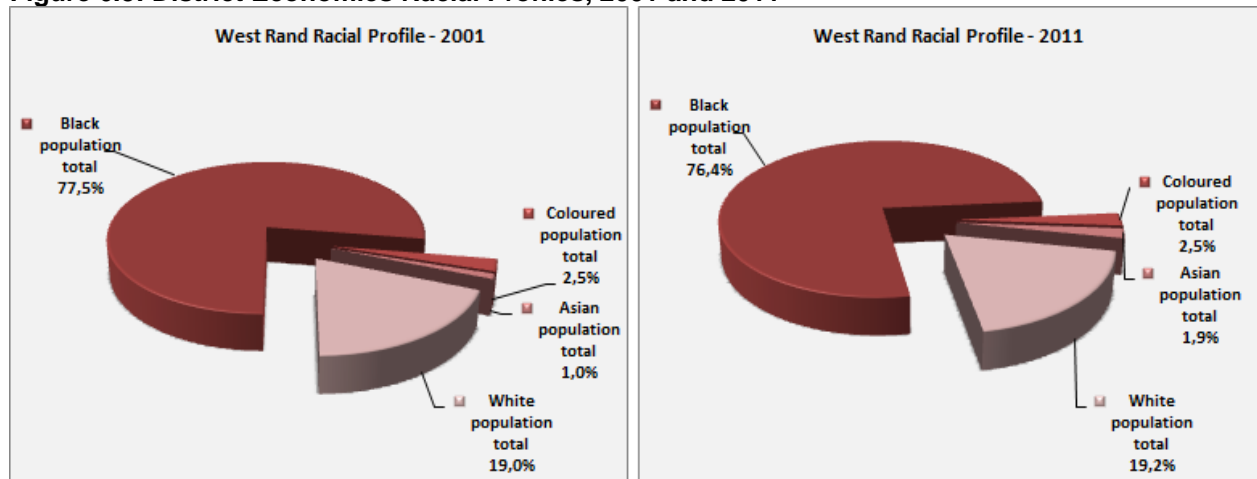
Note: These figures makes use of the 1996 and 2001 population census data, the 2007 Community Survey, StatsSA midyear estimates as well as the Actuarial Union's demographic model to estimate population figures as well as actual roof top counts.

Figure 6.2: District Economy Number of Households with reference to the Gauteng Economy, 2001 and 2011



Source: Demacon, 2013

Figure 6.3: District Economies Racial Profiles, 2001 and 2011

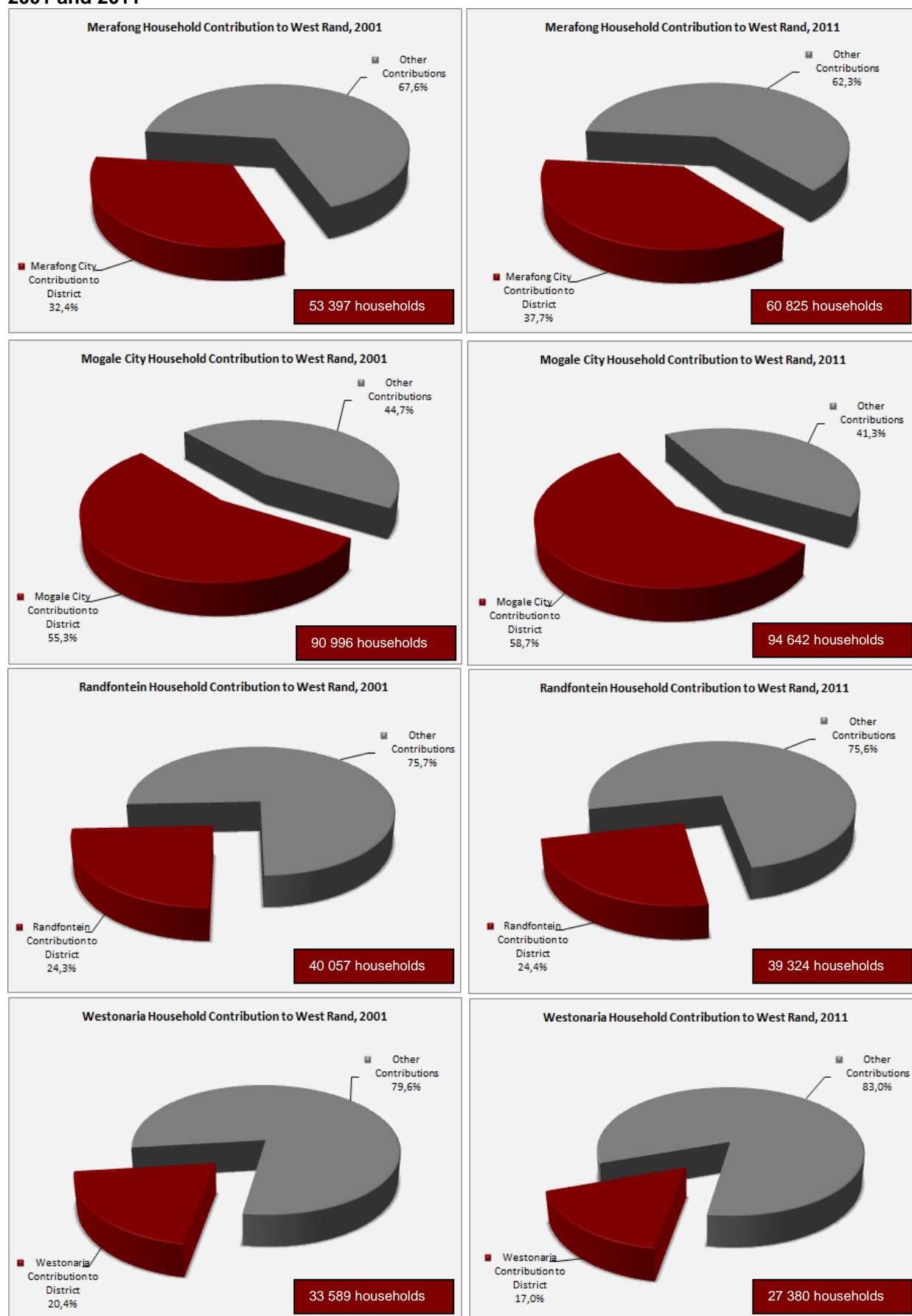


Source: Demacon, 2013

West Rand:

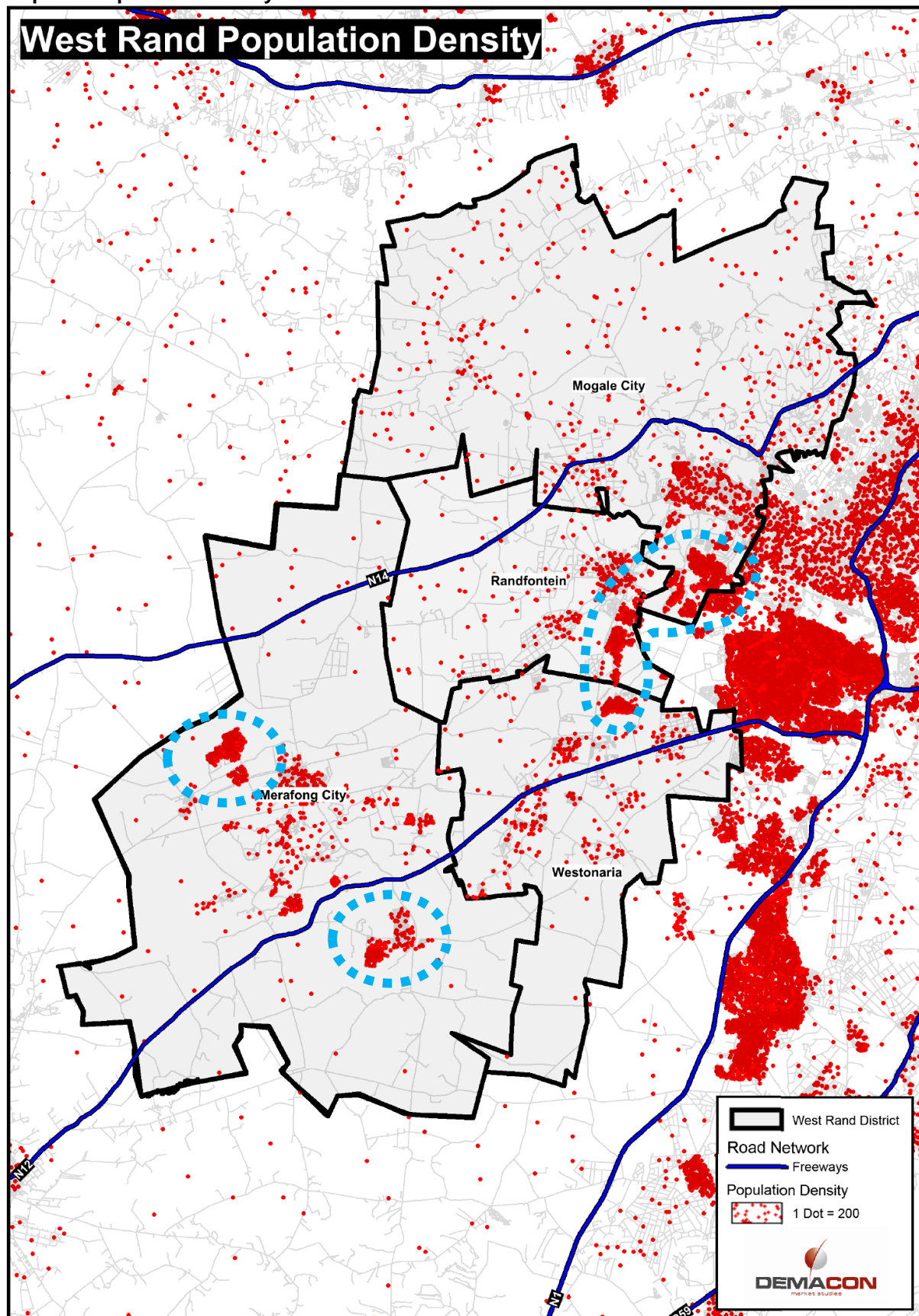
- ✓ With reference to the **2012 population estimate** the West Rand economy is characterised by a population of approximately 802 059 people translated into approximately 220 616 households (approximately 3.6 people per household).
- ✓ The racial profile (2011) reflects a dominant segment of Black Africans (76.4%), with a moderate segment of Whites (19.2%) and a very small segment of Coloureds (2.5%) and Asians (1.9%).

Figure 6.2: Local Economy Number of Households with reference to the West Rand Economy, 2001 and 2011

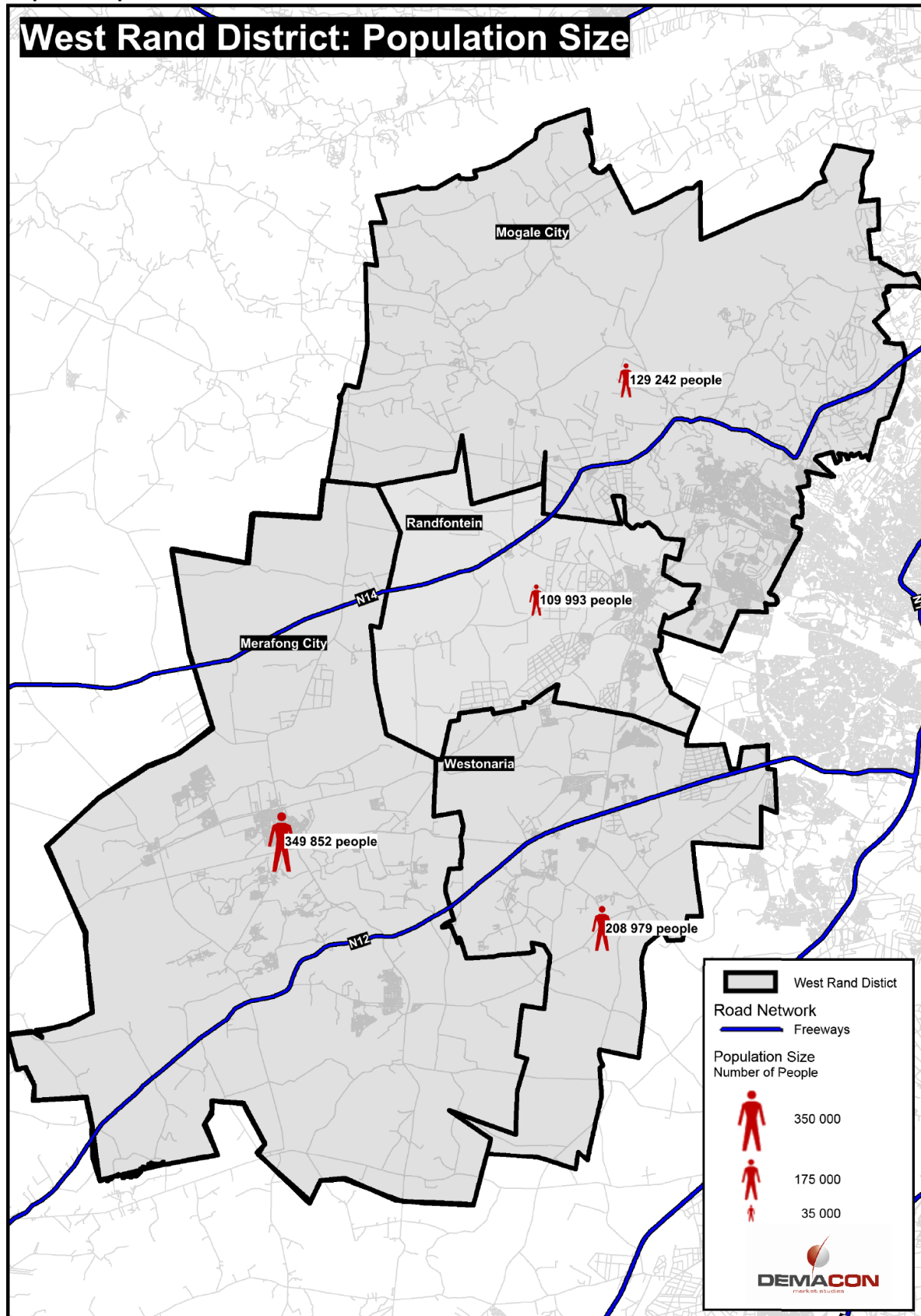


Source: Demacon, 2013

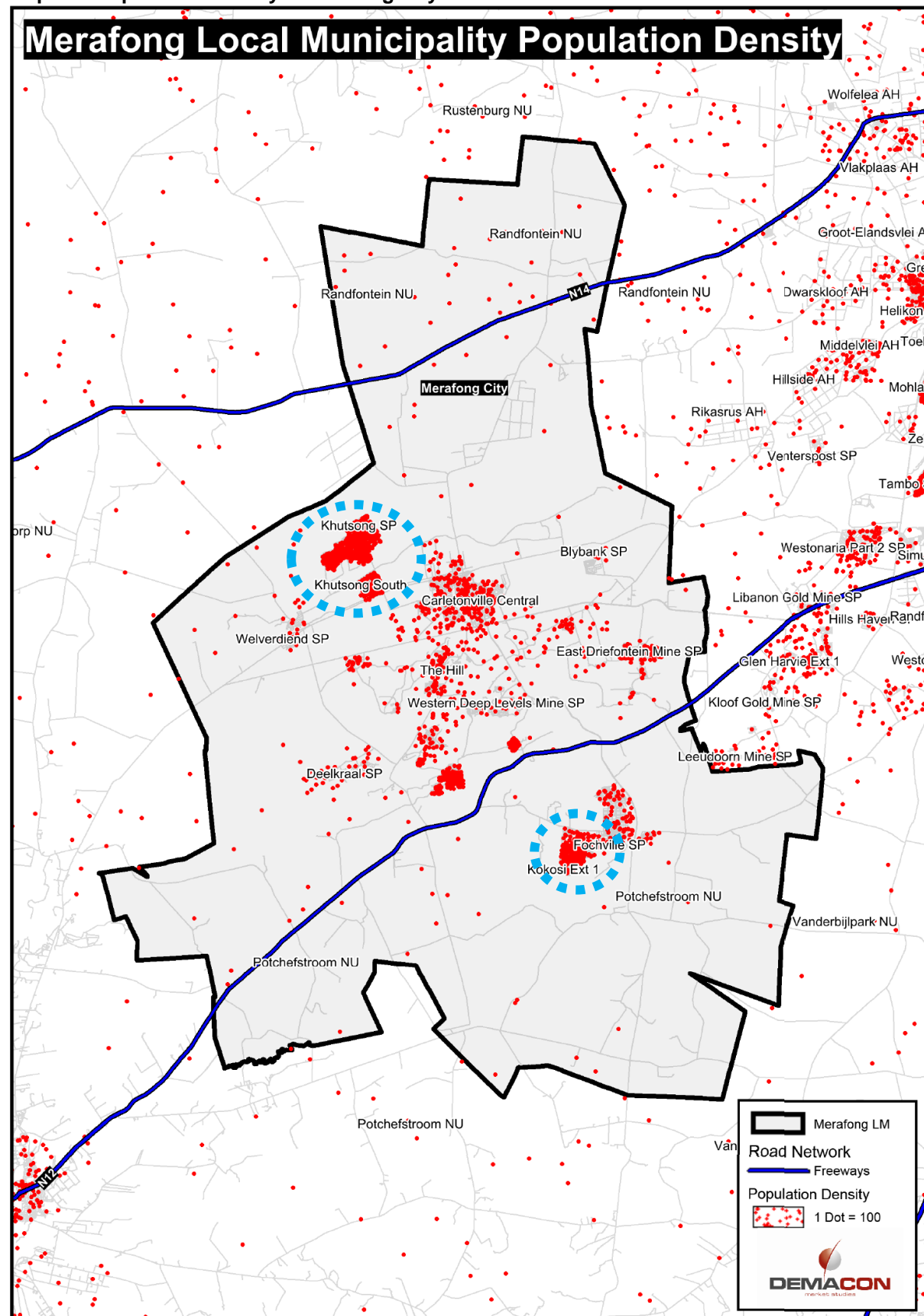
Map 6.3: Population Density – West Rand District



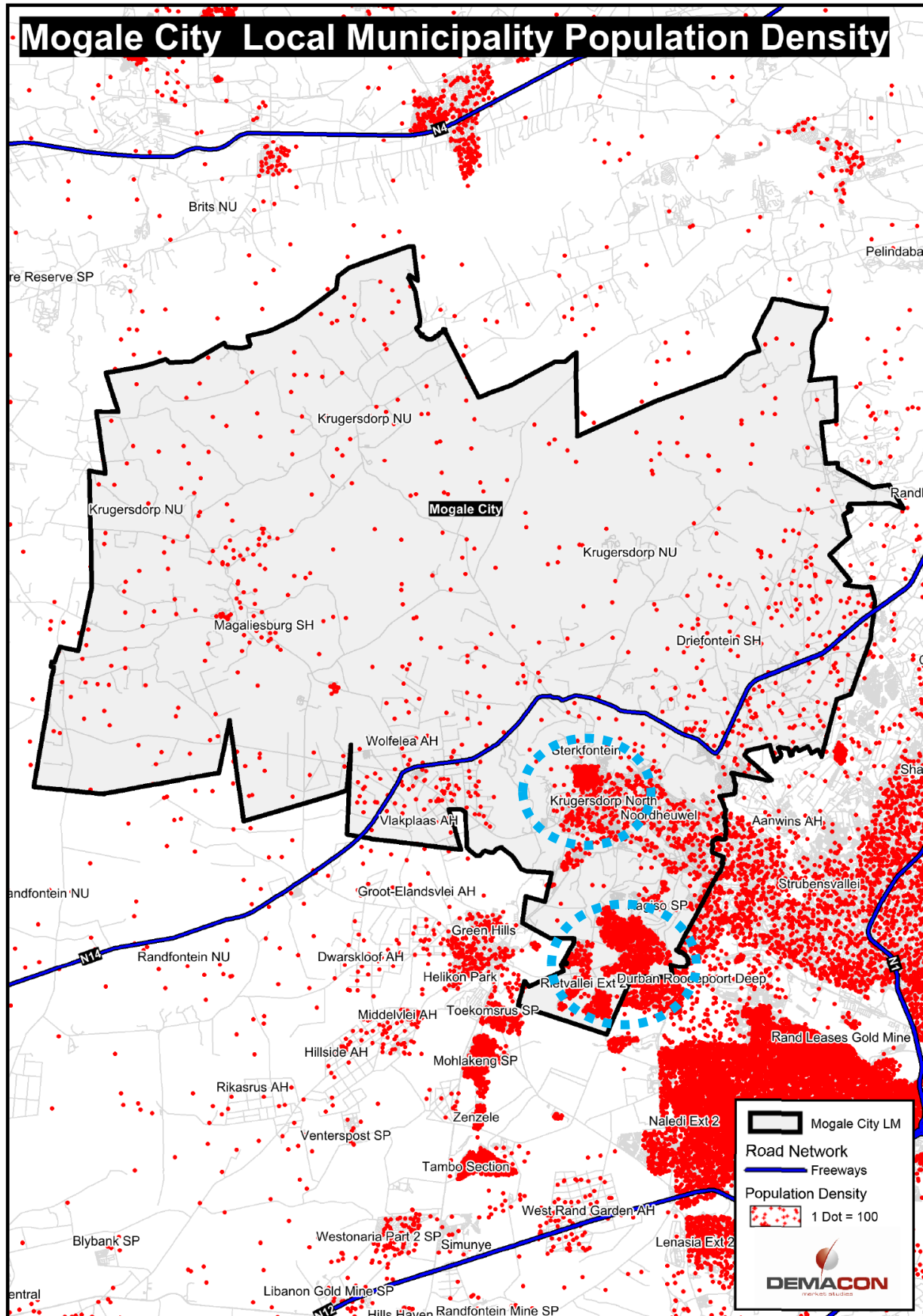
Map 6.4: Population Size – West Rand District



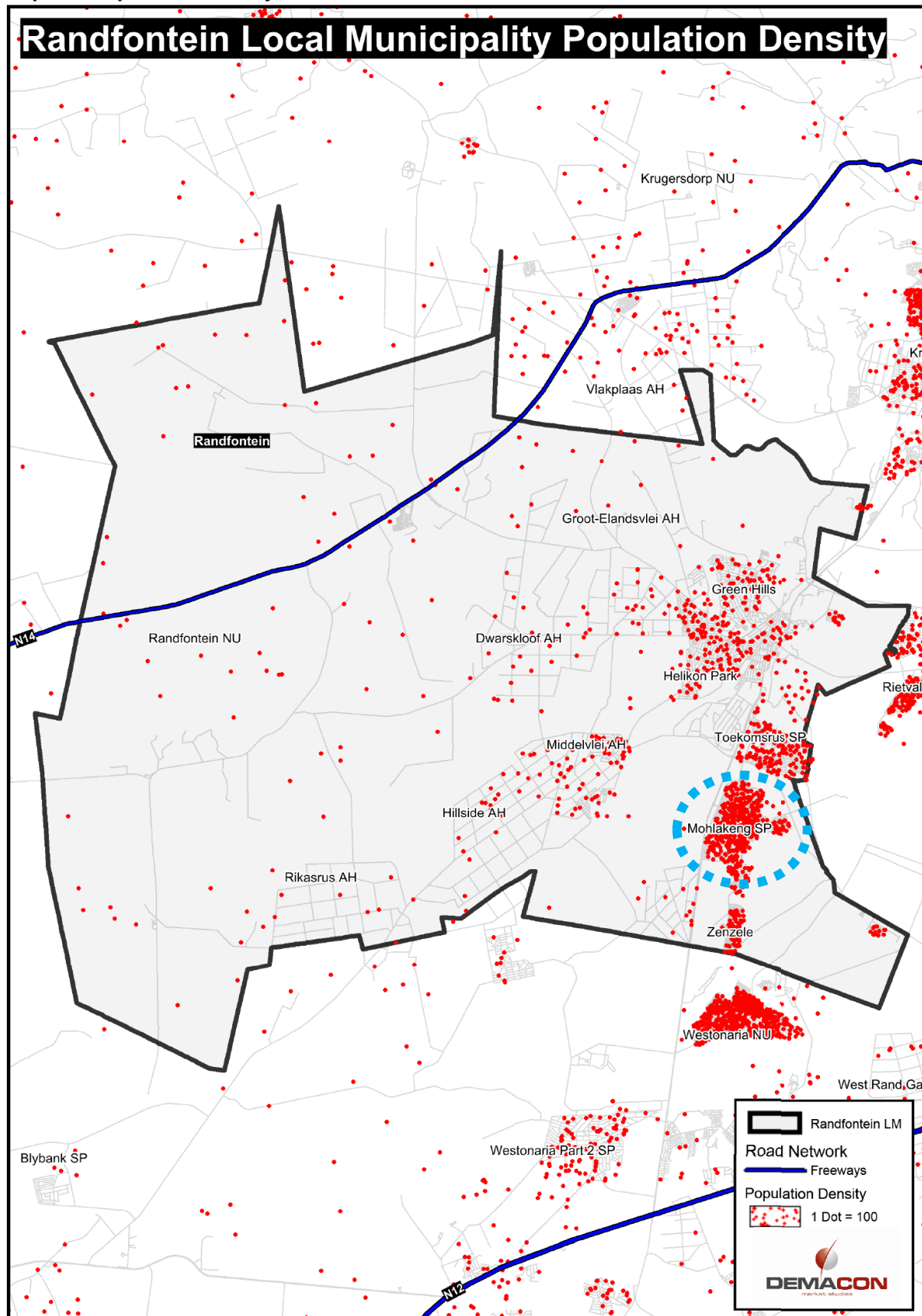
Map 6.5: Population Density – Merafong City



Map 6.6: Population Density – Mogale City



Map 6.7: Population Density – Randfontein



Map 6.8: Population Density – Westonaria

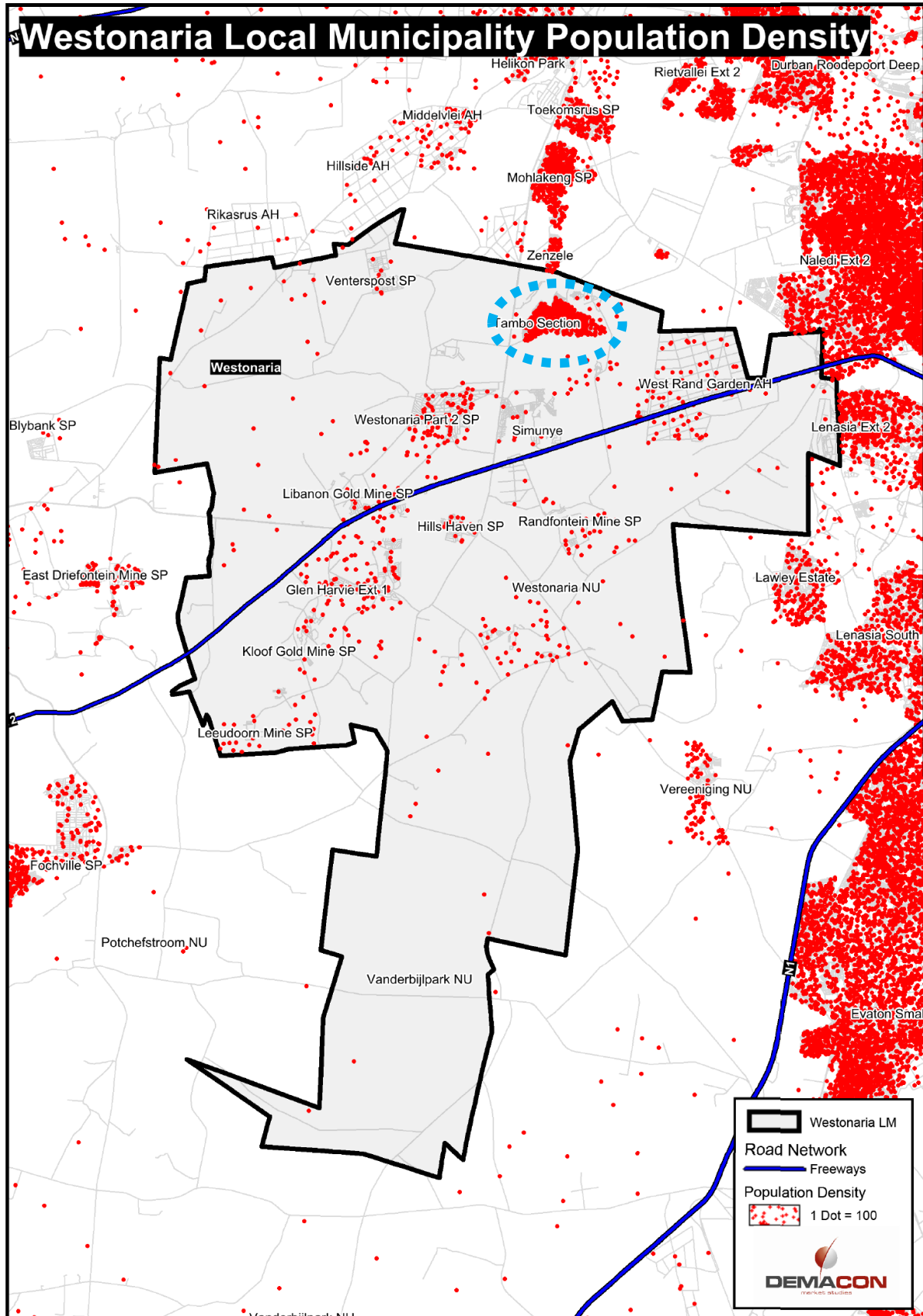
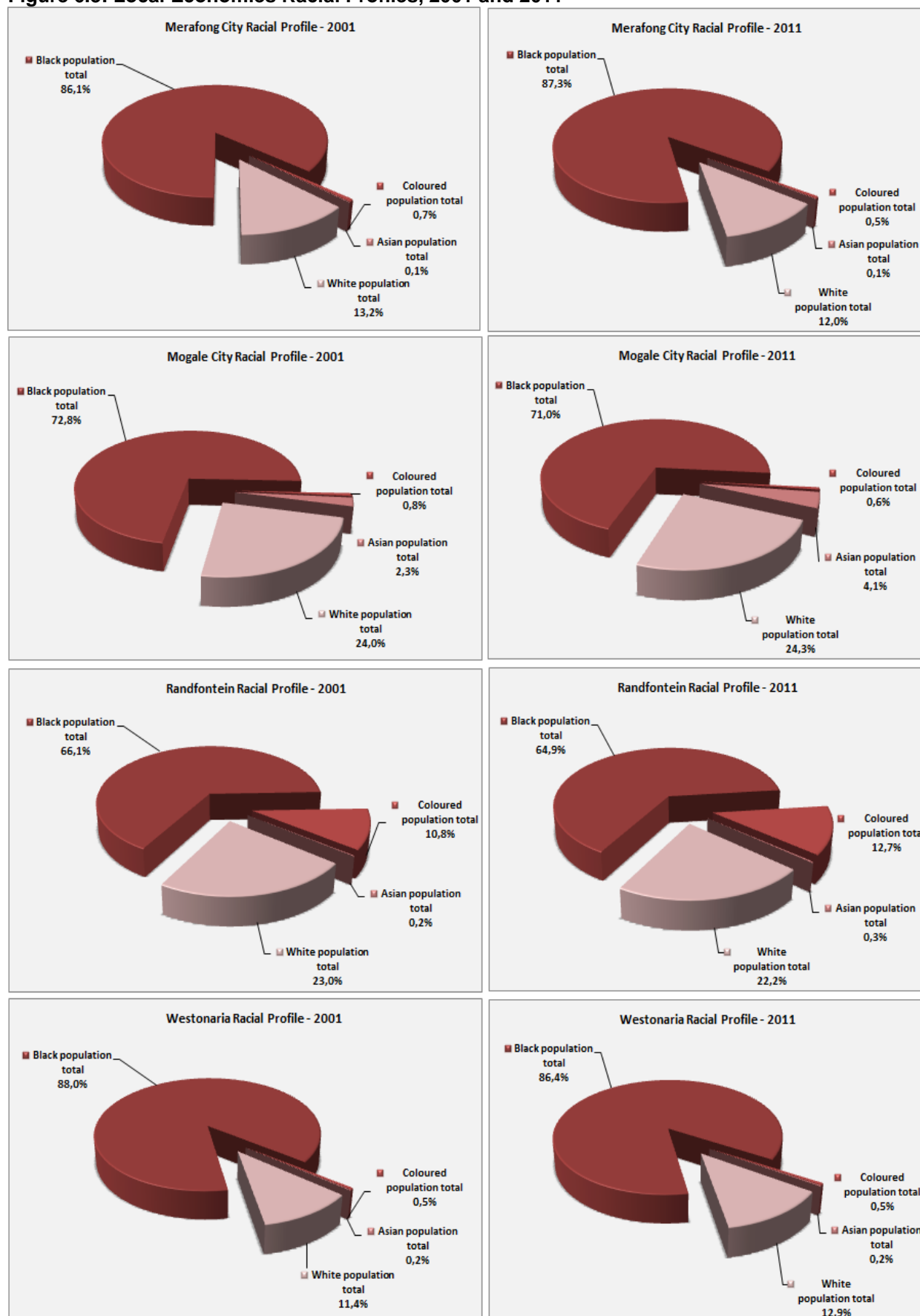
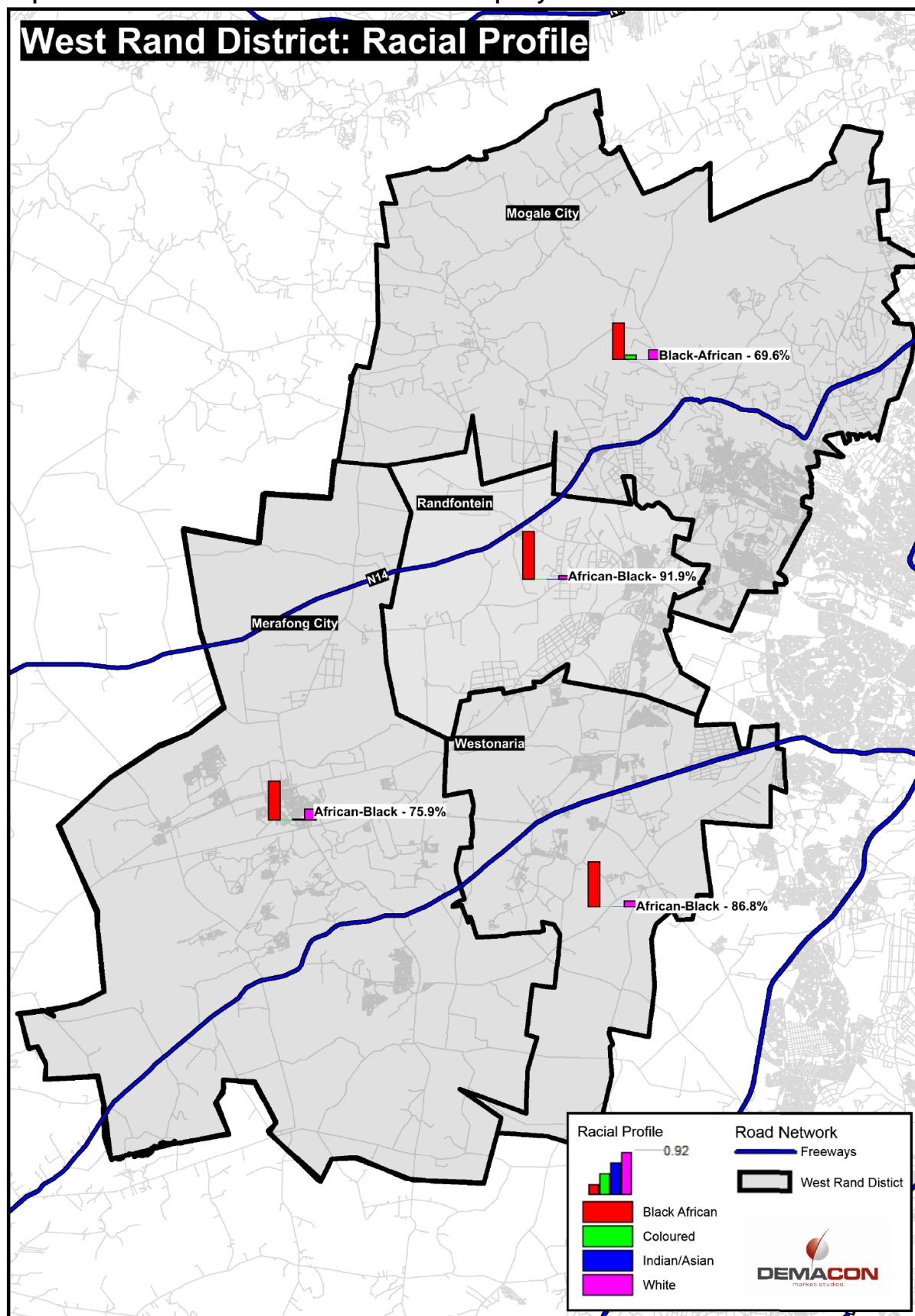


Figure 6.3: Local Economies Racial Profiles, 2001 and 2011



Source: Demacon, 2013

Map 6.9: Racial Profile – West Rand District Municipality



Merafong City:

- ✓ With reference to the **2012 population estimate** the West Rand economy is characterised by a population of approximately 211 069 people translated into approximately 61 191 households (approximately 3.5 people per household).
- ✓ The racial profile (2011) reflects a dominant segment of Black Africans (87.3%), with a moderate segment of Whites (12.0%) and a very small segment of Coloureds (0.5%) and Asians (0.1%).

Mogale City:

- ✓ With reference to the **2012 population estimate** the West Rand economy is characterised by a population of approximately 354 051 people translated into approximately 94 453 households (approximately 3.7 people per household).
- ✓ The racial profile (2011) reflects a dominant segment of Black Africans (71.0%), with a moderate segment of Whites (24.3%) and a very small segment of Asians (4.1%) and Coloureds (0.6%).

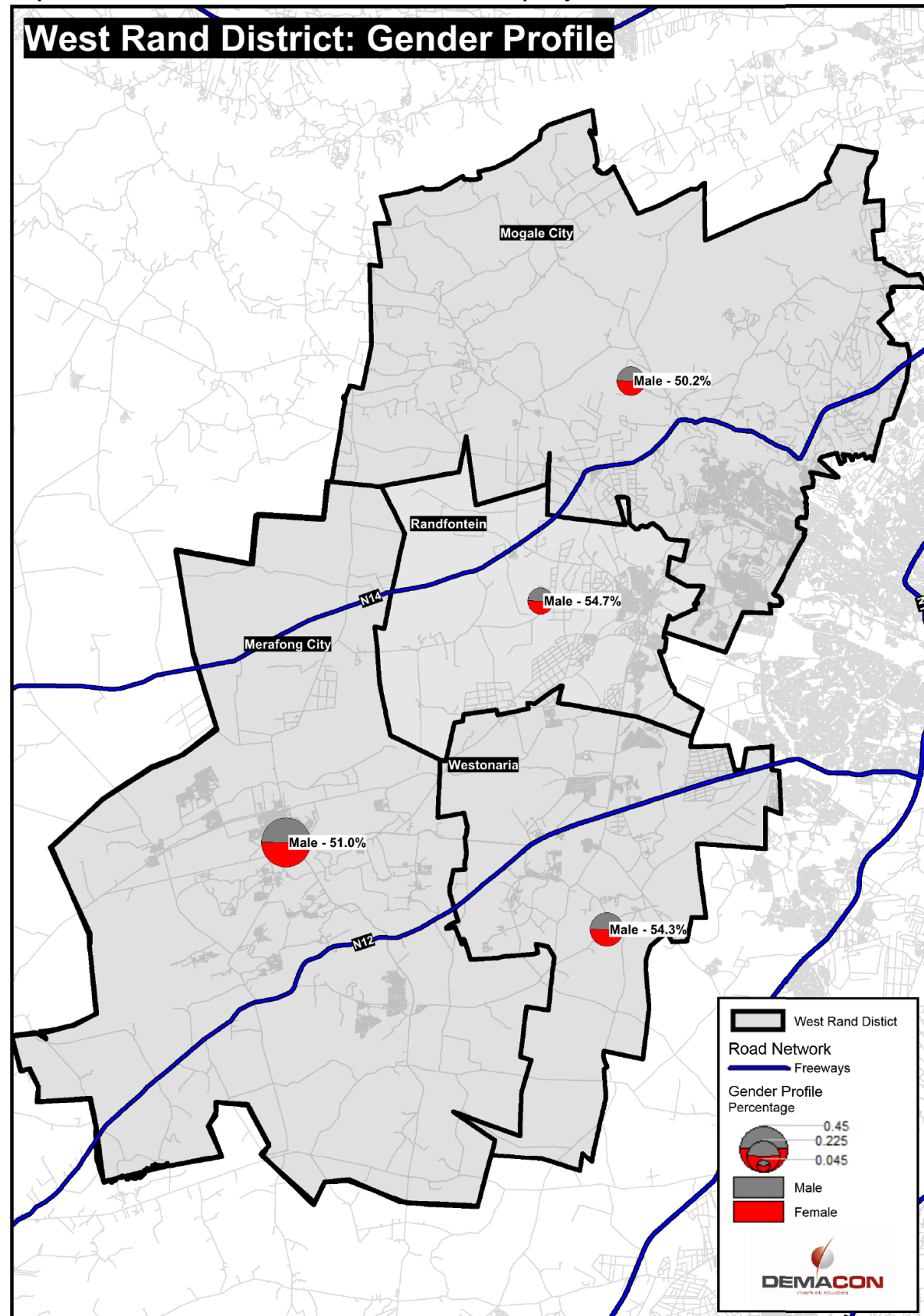
Randfontein:

- ✓ With reference to the **2012 population estimate** the West Rand economy is characterised by a population of approximately 128 079 people translated into approximately 38 773 households (approximately 3.3 people per household).
- ✓ The racial profile (2011) reflects a dominant segment of Black Africans (64.9%), with a moderate segment of Whites (22.2%) and a very small segment of Coloureds (12.7%) and Asians (0.3%).

Westonaria:

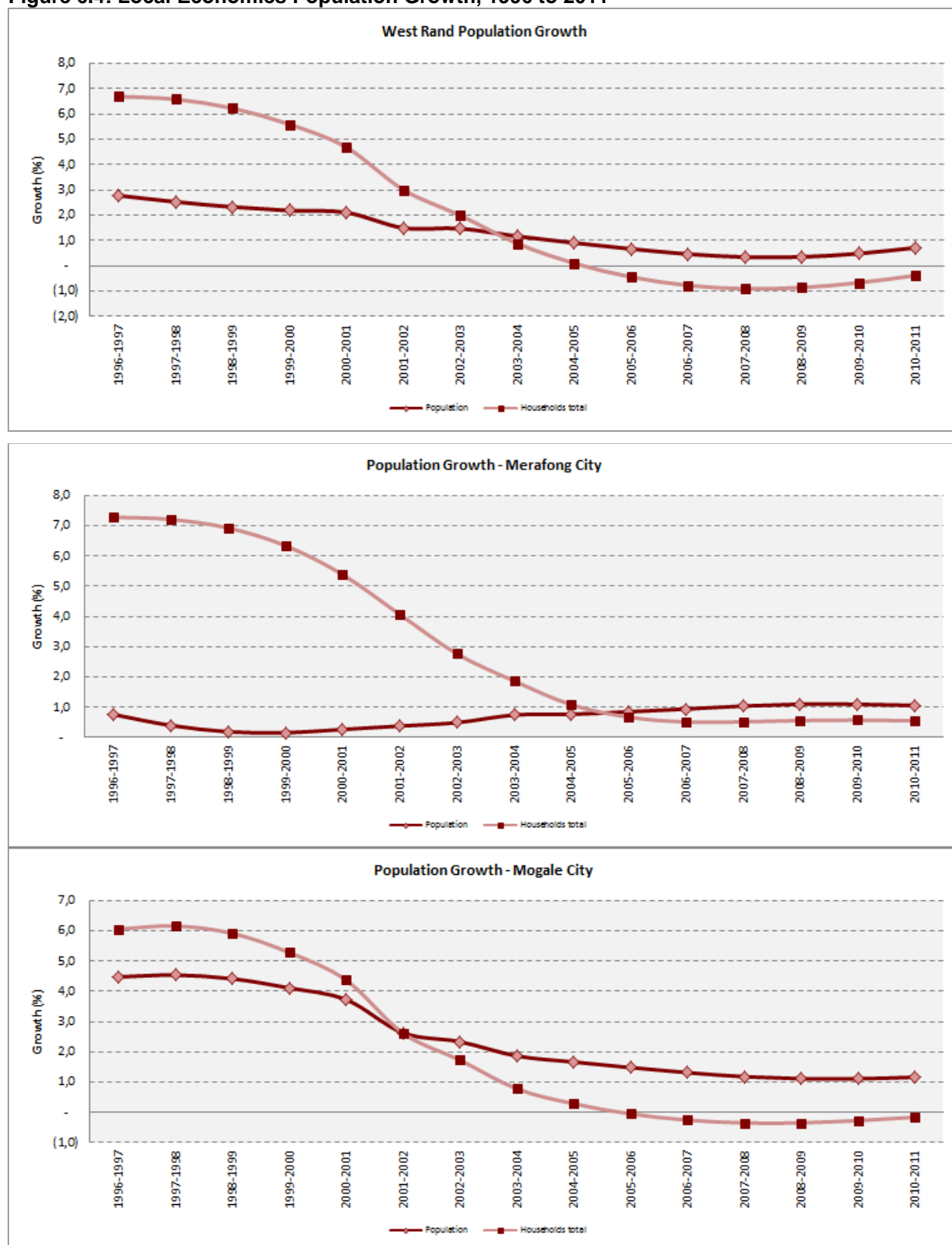
- ✓ With reference to the **2012 population estimate** the West Rand economy is characterised by a population of approximately 109 004 people translated into approximately 26 449 households (approximately 4.1 people per household).
- ✓ The racial profile (2011) reflects a dominant segment of Black Africans (86.4%), with a moderate segment of Whites (12.9%) and a very small segment of Coloureds (0.5%) and Asians (0.2%).

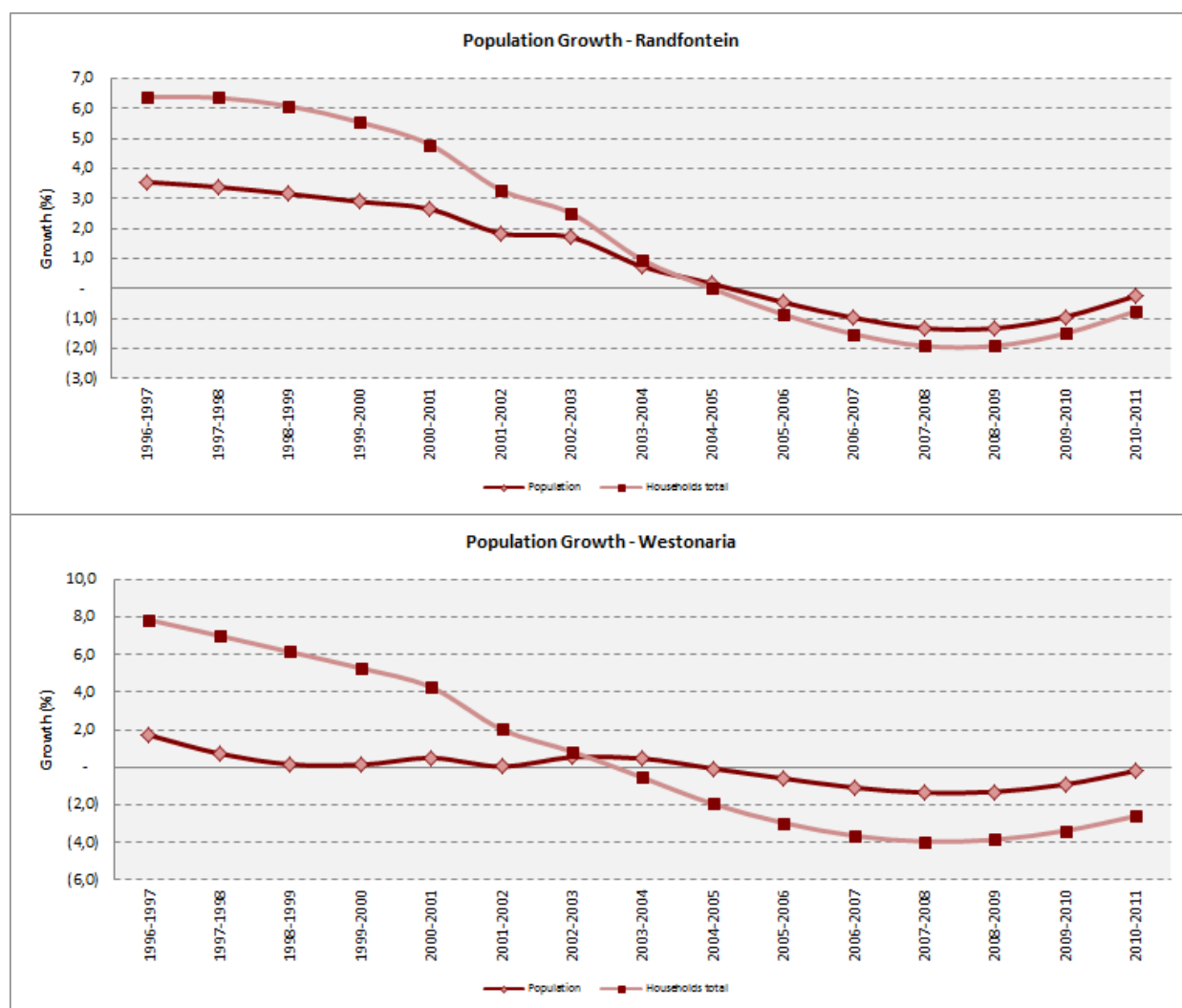
Map 6.10: Gender Profile – West Rand District Municipality



6.4.2 POPULATION GROWTH

Figure 6.4: Local Economies Population Growth, 1996 to 2011





Source: Demacon Ex Quantec, 2013

Table 6.1: Population and Household Growth (Ten year, five year and three year averages)

Combined Regional Economy	1996-2011	2001-2011	2006-2011	2008-2011
West Rand				
Population Growth	1.4	0.8	0.5	0.5
Household Growth	2.2	0.2	(0.7)	(0.6)
Merafong City				
Population Growth	0.7	0.8	1.1	1.0
Household Growth	3.3	1.3	0.5	0.6
Mogale City				
Population Growth	2.6	1.6	1.2	1.1
Household Growth	2.2	0.4	(0.3)	(0.3)
Randfontein				
Population Growth	1.0	(0.1)	(1.0)	(0.8)
Household Growth	1.9	(0.2)	(1.5)	(1.4)
Westonaria				
Population Growth	(0.1)	(0.4)	(1.0)	(0.8)
Household Growth	0.7	(2.0)	(3.5)	(3.3)

Source: Demacon Ex Quantec, 2013

Note: This represents net growth – new household formation includes deaths, births, migration etc.

6.4.3 IMPACT OF HIV / AIDS

The figure below indicates the percentage of the population that is HIV positive – 2001 and 2011.

West Rand:

- ✓ HIV positive segment increased from 14.0% in 2001 to 14.4% in 2011.
- ✓ Despite the slowdown in the growth of HIV in the market deaths because of AIDS increased as percentage of total deaths over the years: increasing from 55.4% to 60.2% of total deaths in the region.

Merafong City:

- ✓ HIV positive segment increased from 14.7% in 2001 to 15.0% in 2011.
- ✓ Despite the slowdown in the growth of HIV in the market deaths because of AIDS increased as percentage of total deaths over the years: increasing from 56.6% to 64.7% of total deaths in the region.

Mogale City:

- ✓ HIV positive segment increased from 12.8% in 2001 to 13.6% in 2011.
- ✓ Despite the slowdown in the growth of HIV in the market deaths because of AIDS increased as percentage of total deaths over the years: increasing from 52.6% to 56.8% of total deaths in the region.

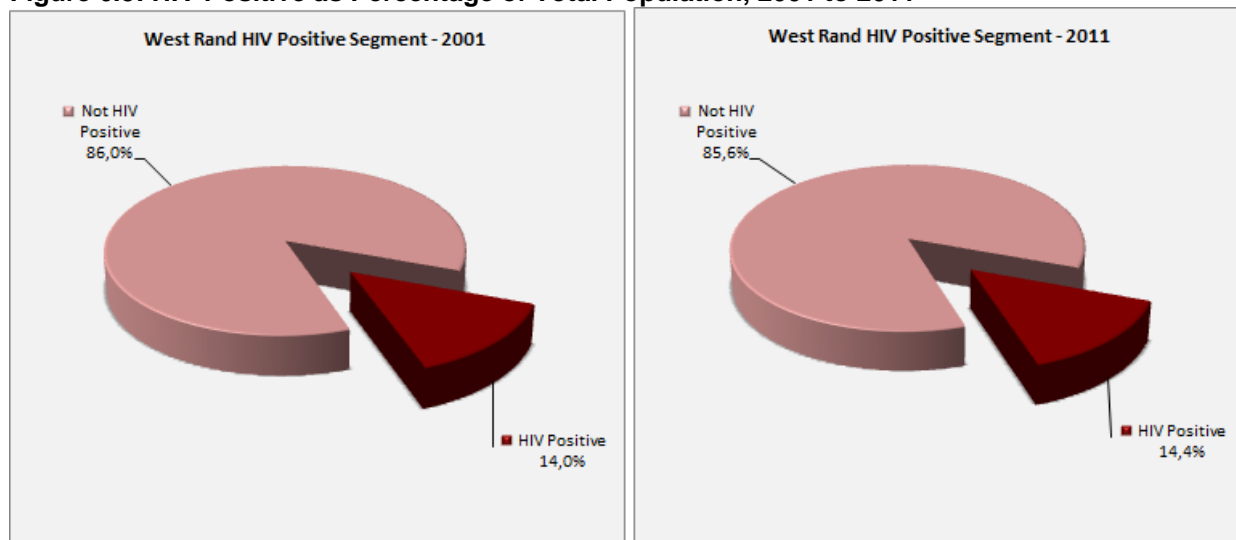
Randfontein:

- ✓ HIV positive segment increased from 12.0% in 2001 to 13.1% in 2011.
- ✓ Despite the slowdown in the growth of HIV in the market deaths because of AIDS increased as percentage of total deaths over the years: increasing from 50.7% to 49.3% of total deaths in the region.

Westonaria:

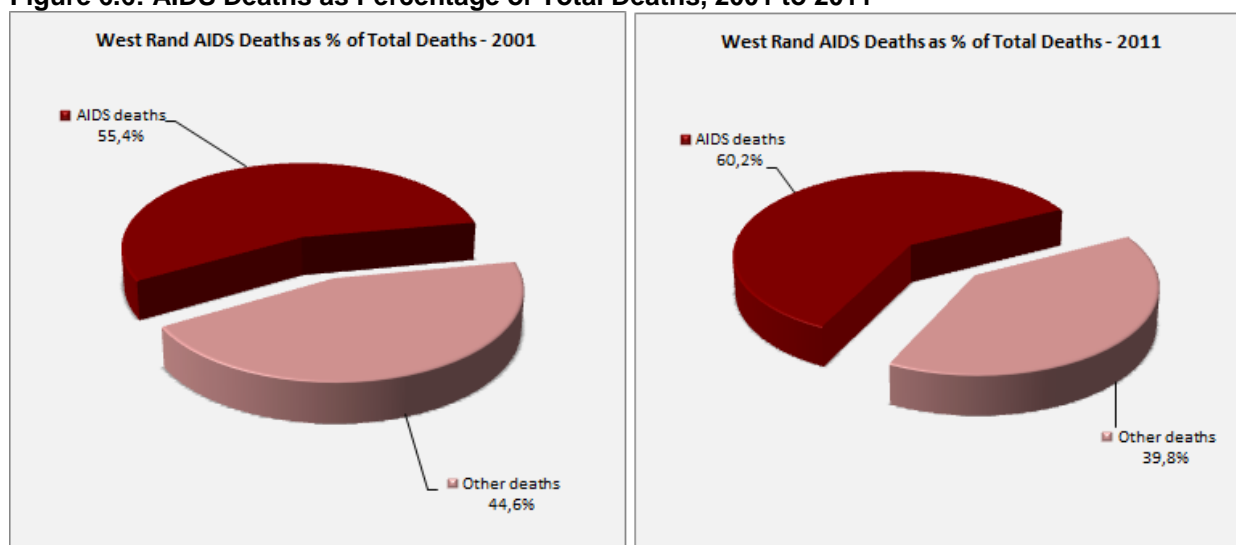
- ✓ HIV positive segment increased from 17.8% in 2001 to 15.1% in 2011.
- ✓ Despite the slowdown in the growth of HIV in the market deaths because of AIDS increased as percentage of total deaths over the years: increasing from 64.1% to 68.3% of total deaths in the region.

Figure 6.5: HIV Positive as Percentage of Total Population, 2001 to 2011



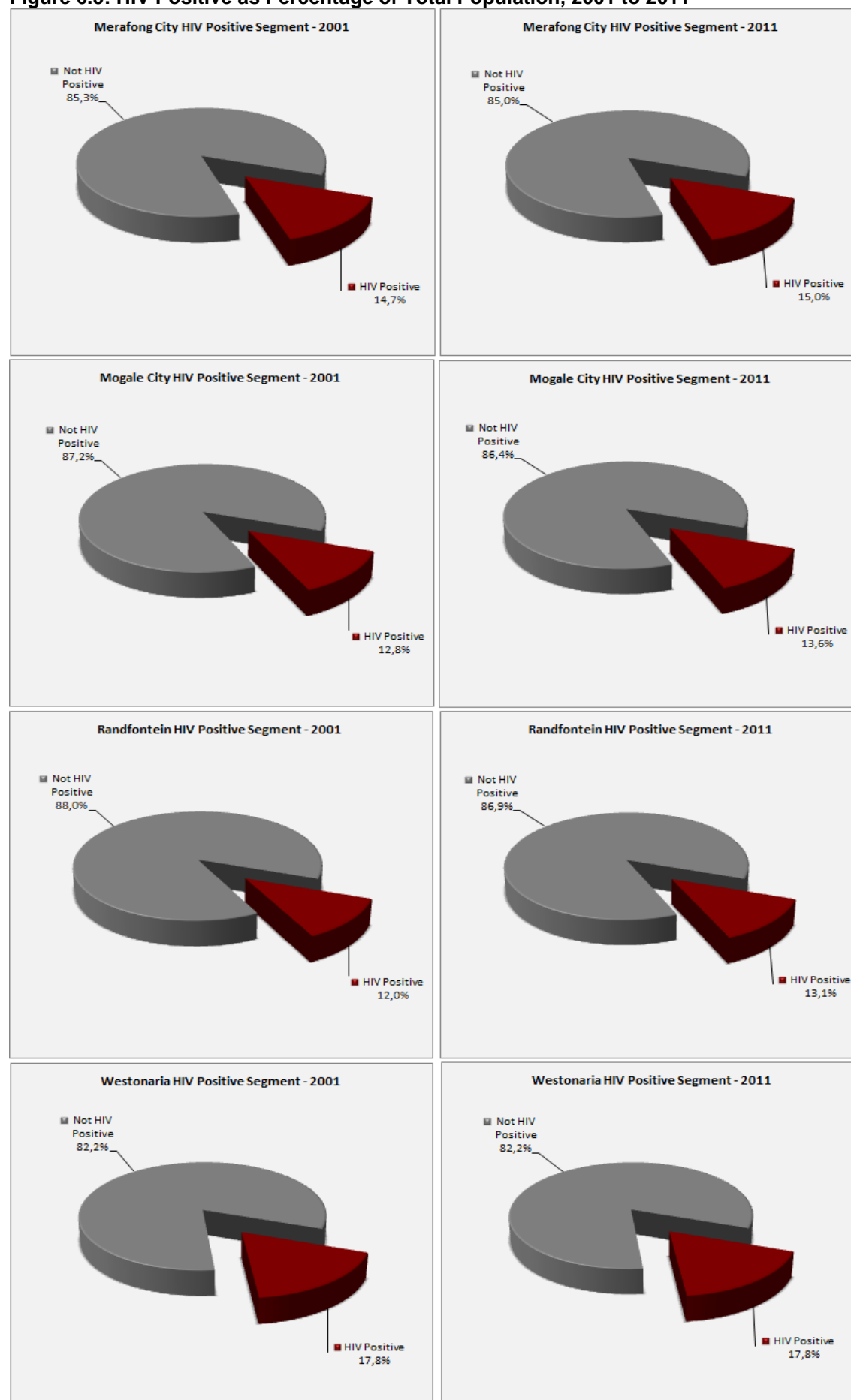
Source: Demacon, 2013

Figure 6.6: AIDS Deaths as Percentage of Total Deaths, 2001 to 2011



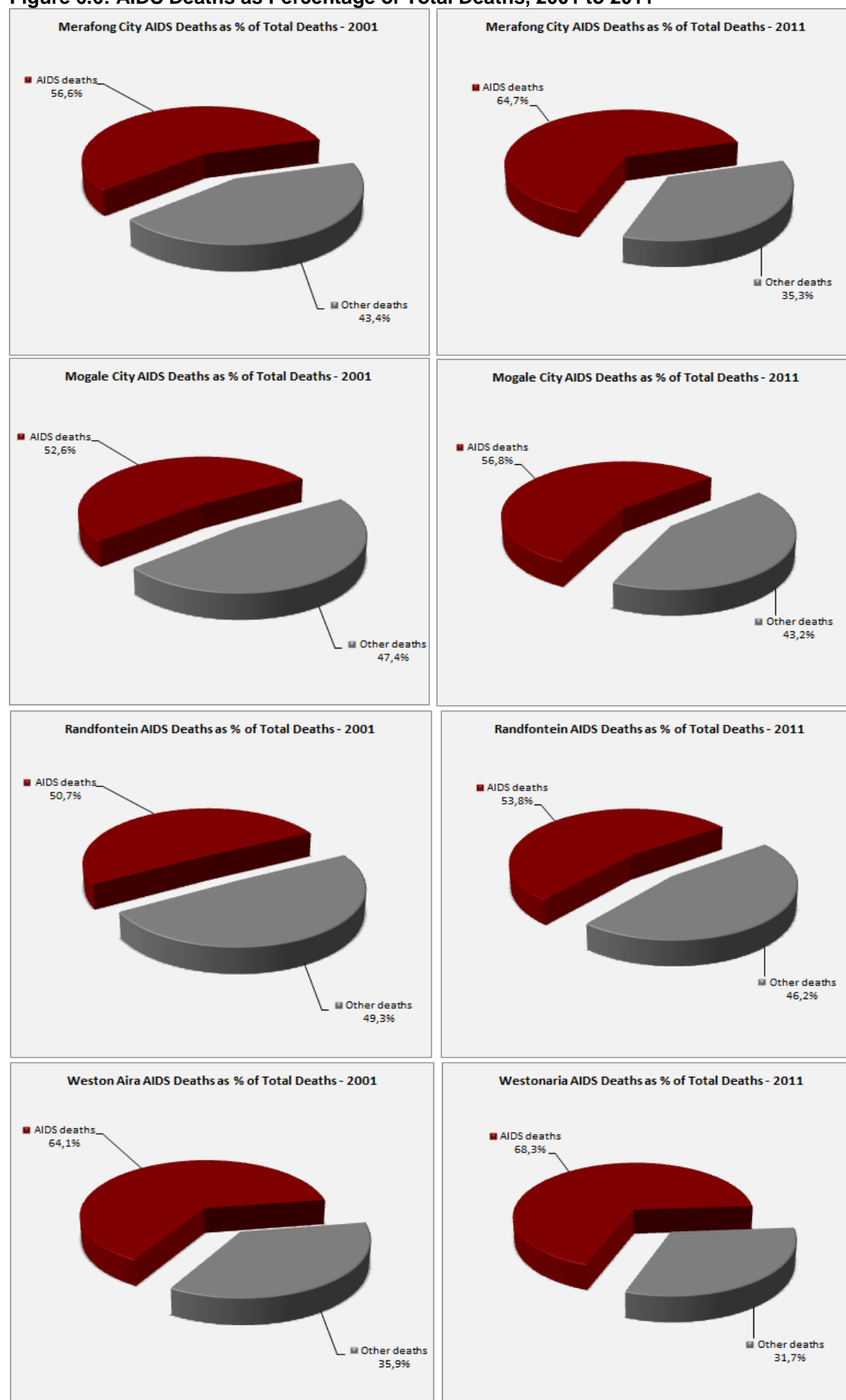
Source: Demacon, 2013

Figure 6.5: HIV Positive as Percentage of Total Population, 2001 to 2011



Source: Demacon, 2013

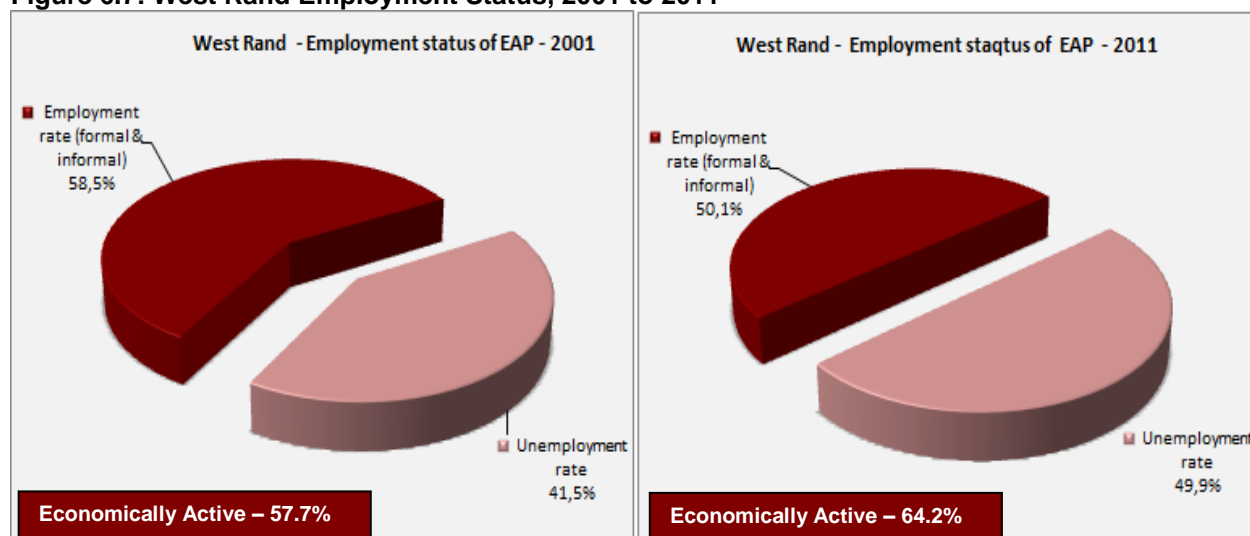
Figure 6.6: AIDS Deaths as Percentage of Total Deaths, 2001 to 2011



Source: Demacon, 2013

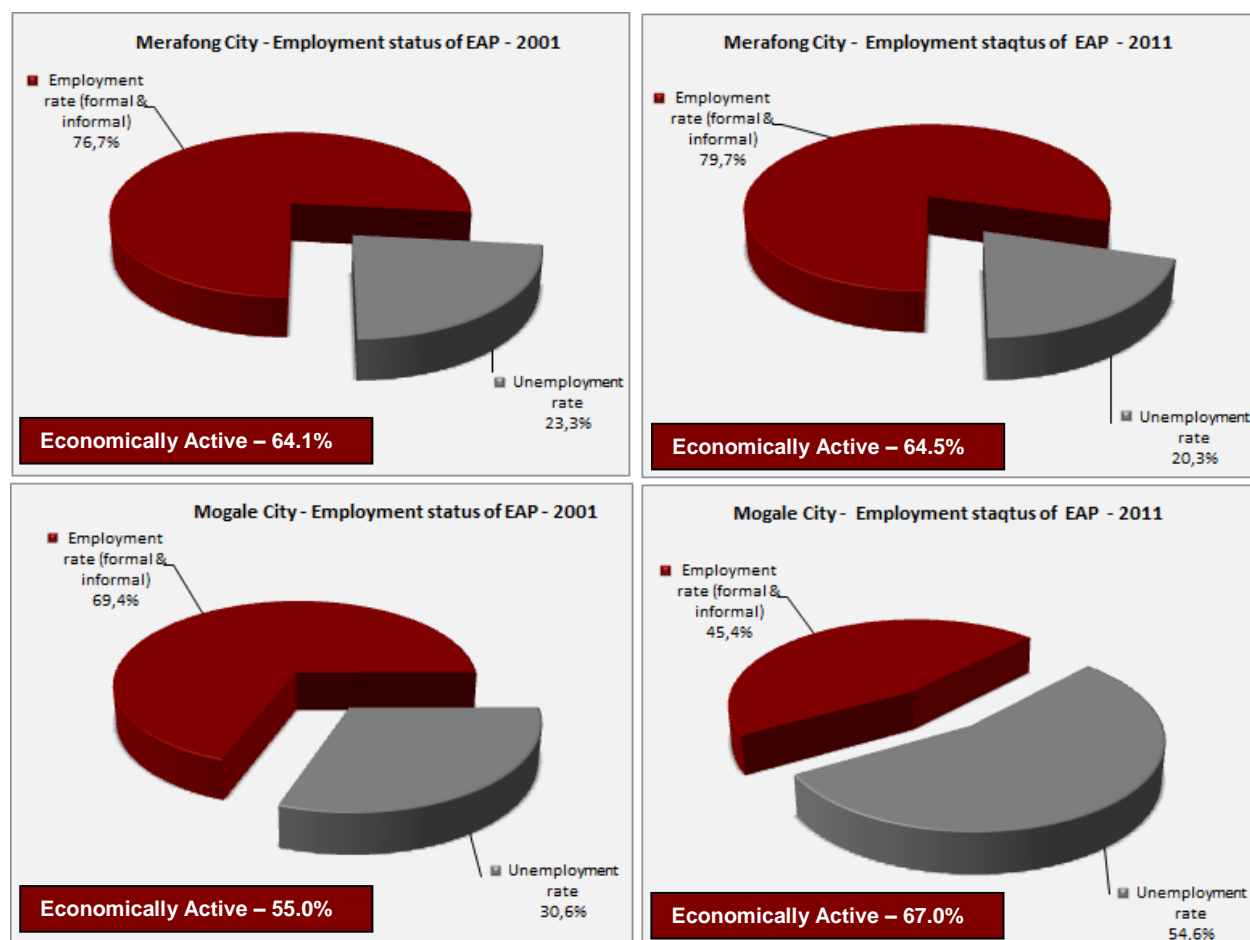
6.4.4 EMPLOYMENT STATUS

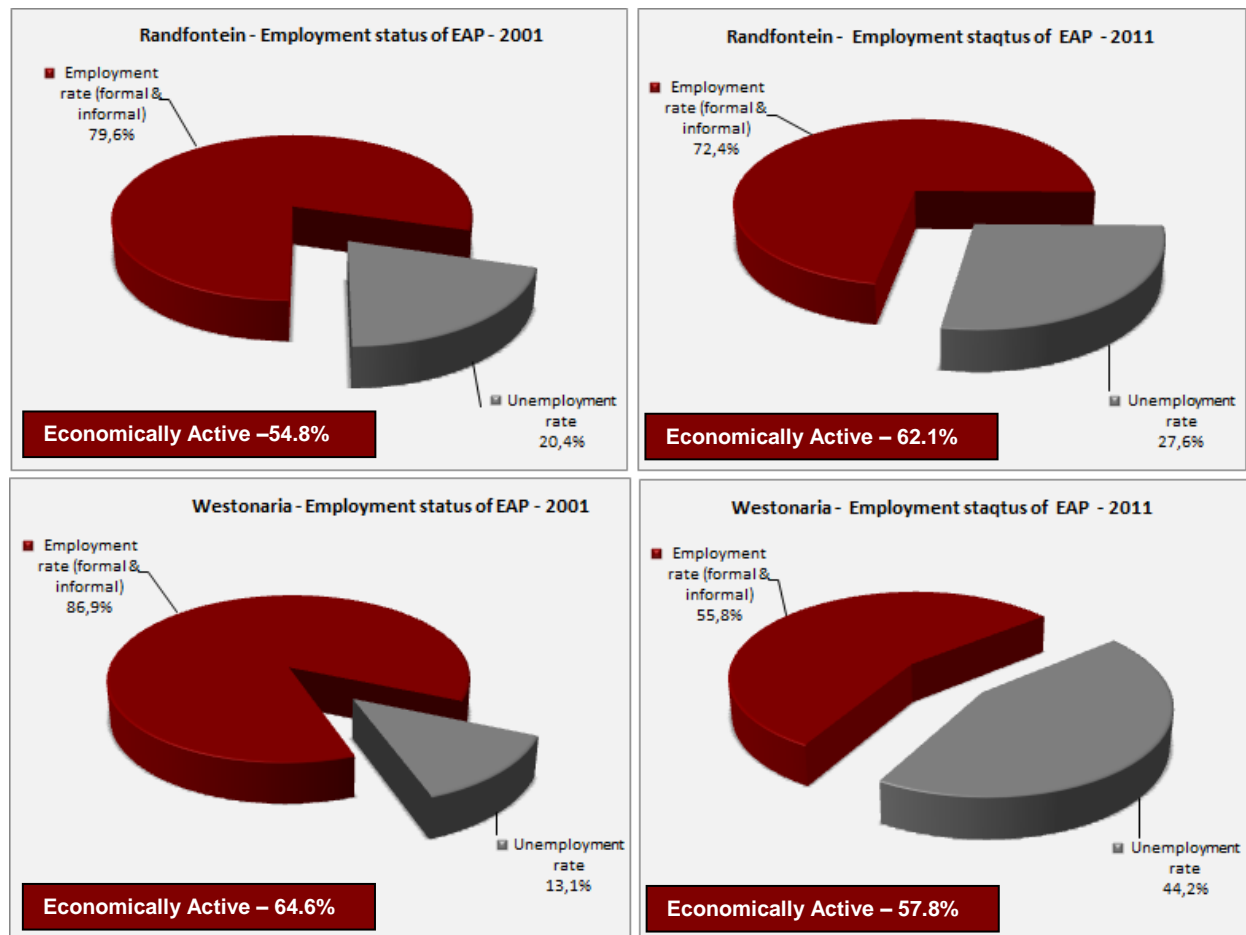
Figure 6.7: West Rand Employment Status, 2001 to 2011



West Rand:

- ✓ The economically active market segment increased slightly over the past number of years – increasing from 57.7% in 2001 to 64.2% in 2011.
- ✓ In terms of the EAP segment - The level of employment decreased from 58.5% in 2001 to 50.1 in 2011.





Source: Demacon, 2013

Merafong City:

- ✓ The economically active market segment increased slightly over the past number of years – increasing from 64.1% in 2001 to 64.5% in 2011.
- ✓ In terms of the EAP segment - The level of employment increased from 76.7% in 2001 to 79.7% in 2011.

Mogale City:

- ✓ The economically active market segment increased over the past number of years – increasing from 55.0% in 2001 to 67.0% in 2011.
- ✓ In terms of the EAP segment - The level of employment decreased from 69.4% in 2001 to 45.4% in 2011.

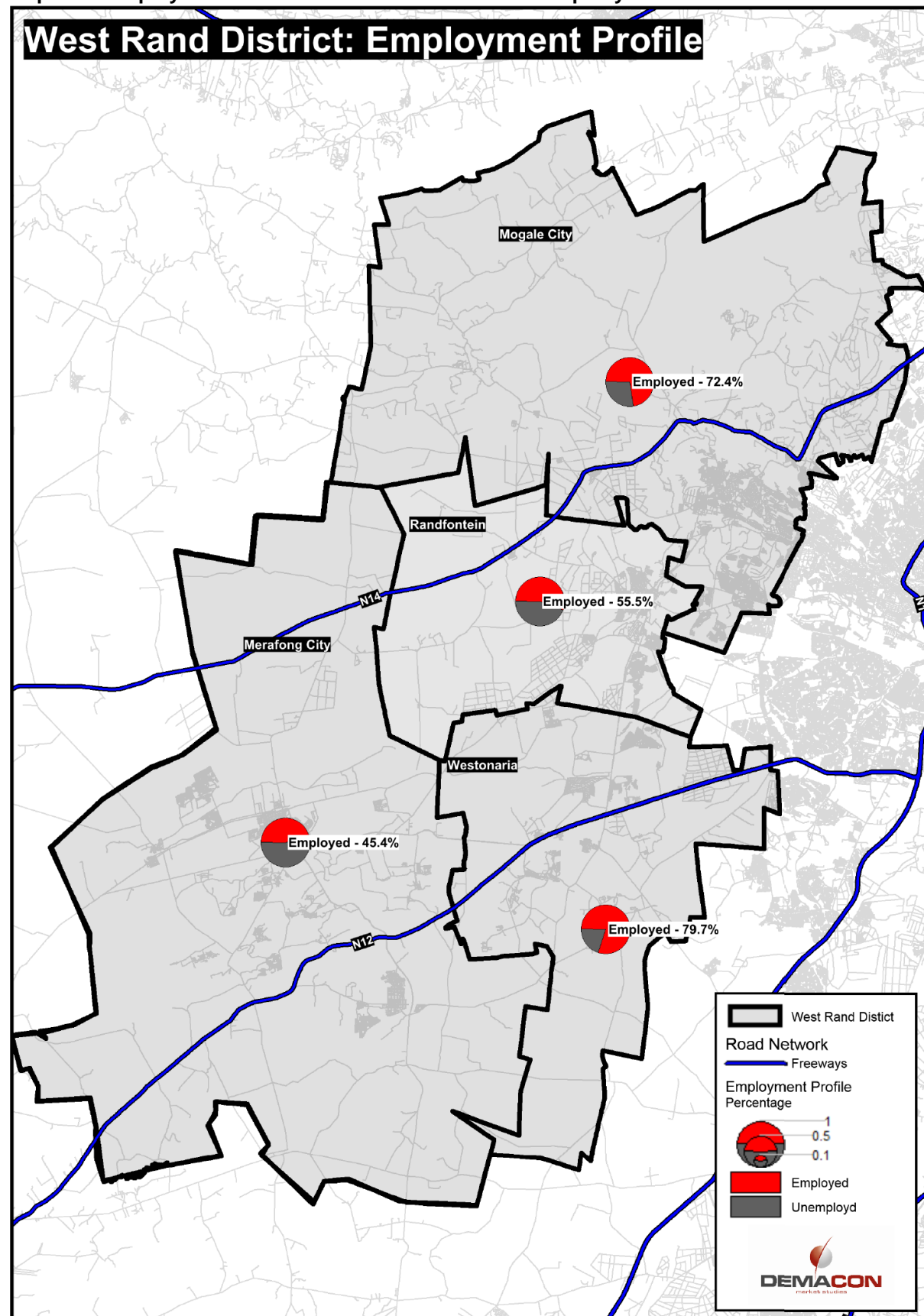
Randfontein:

- ✓ The economically active market segment increased slightly over the past number of years – increasing from 54.8% in 2001 to 62.1% in 2011.
- ✓ In terms of the EAP segment - The level of employment decreased from 79.6% in 2001 to 72.4% in 2011.

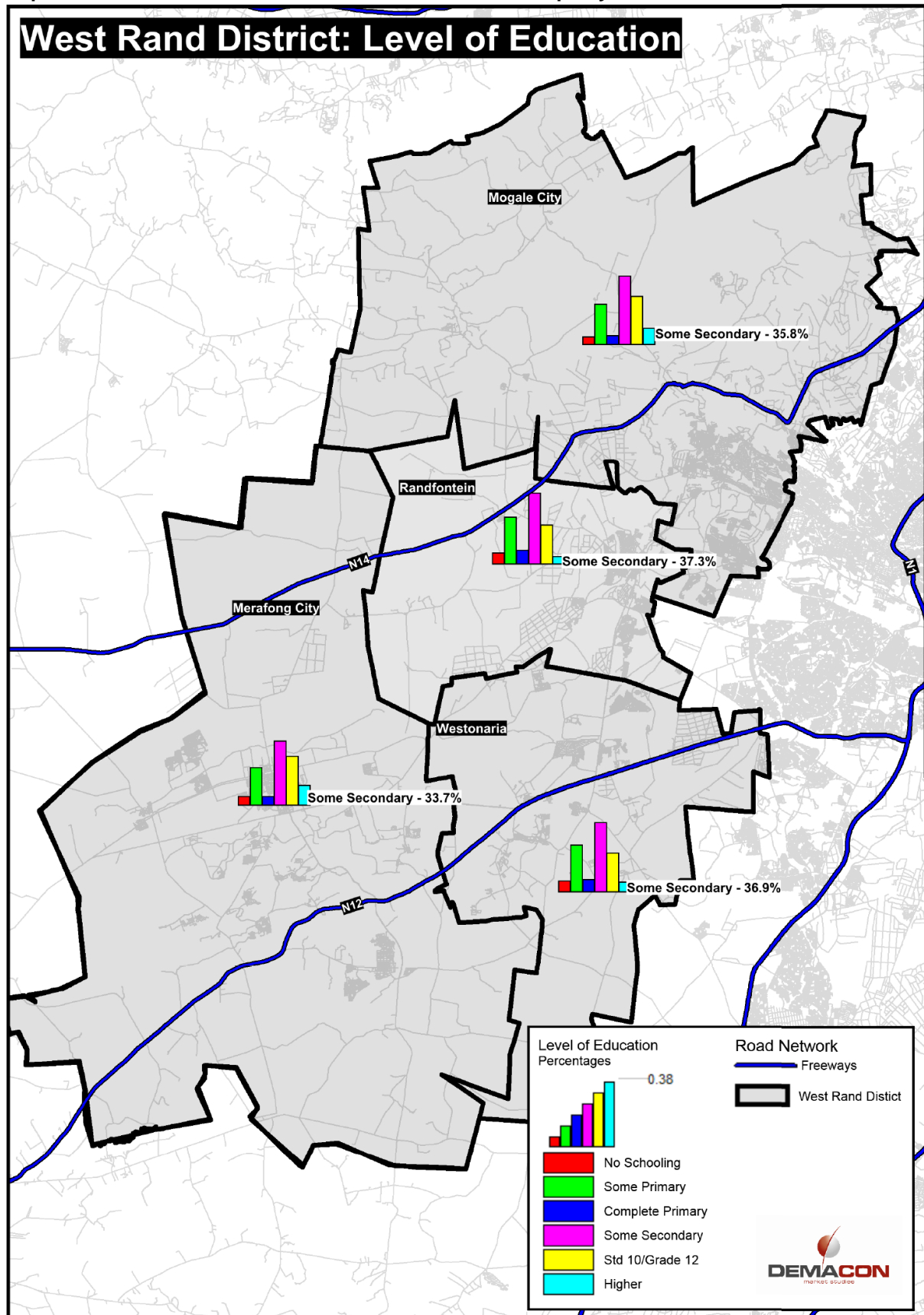
Westonaria:

- ✓ The economically active market segment decreased over the past number of years – decreasing from 64.6% in 2001 to 57.8% in 2011.
- ✓ In terms of the EAP segment - The level of employment decreased significantly from 86.9% in 2001 to 55.8% in 2011.

Map 6.11: Employment Profile – West Rand District Municipality

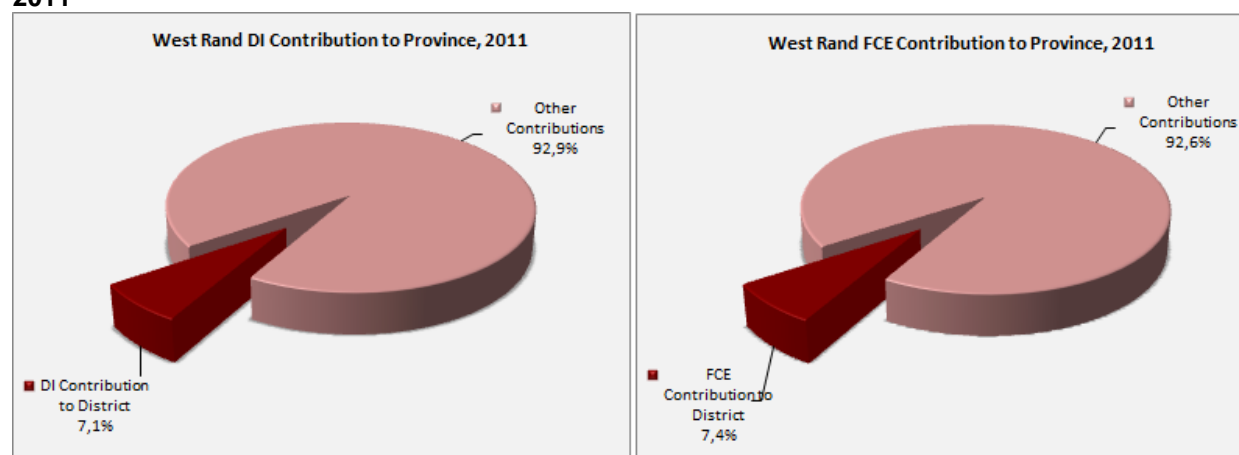


Map 6.12: Level of Education – West Rand District Municipality



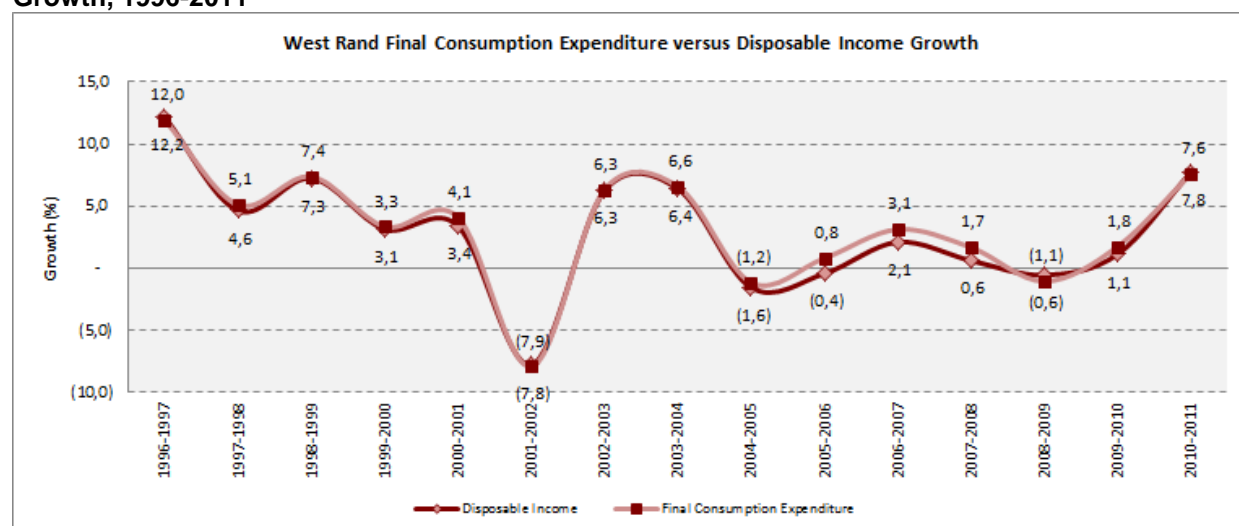
6.4.5 INCOME AND EXPENDITURE

Figure 6.8: Contribution of Final Household Consumption Expenditure and Disposable Income, 2011



Source: Demacon, 2013

Figure 6.9: District - Final Household Consumption Expenditure versus Disposable Income Growth, 1996-2011



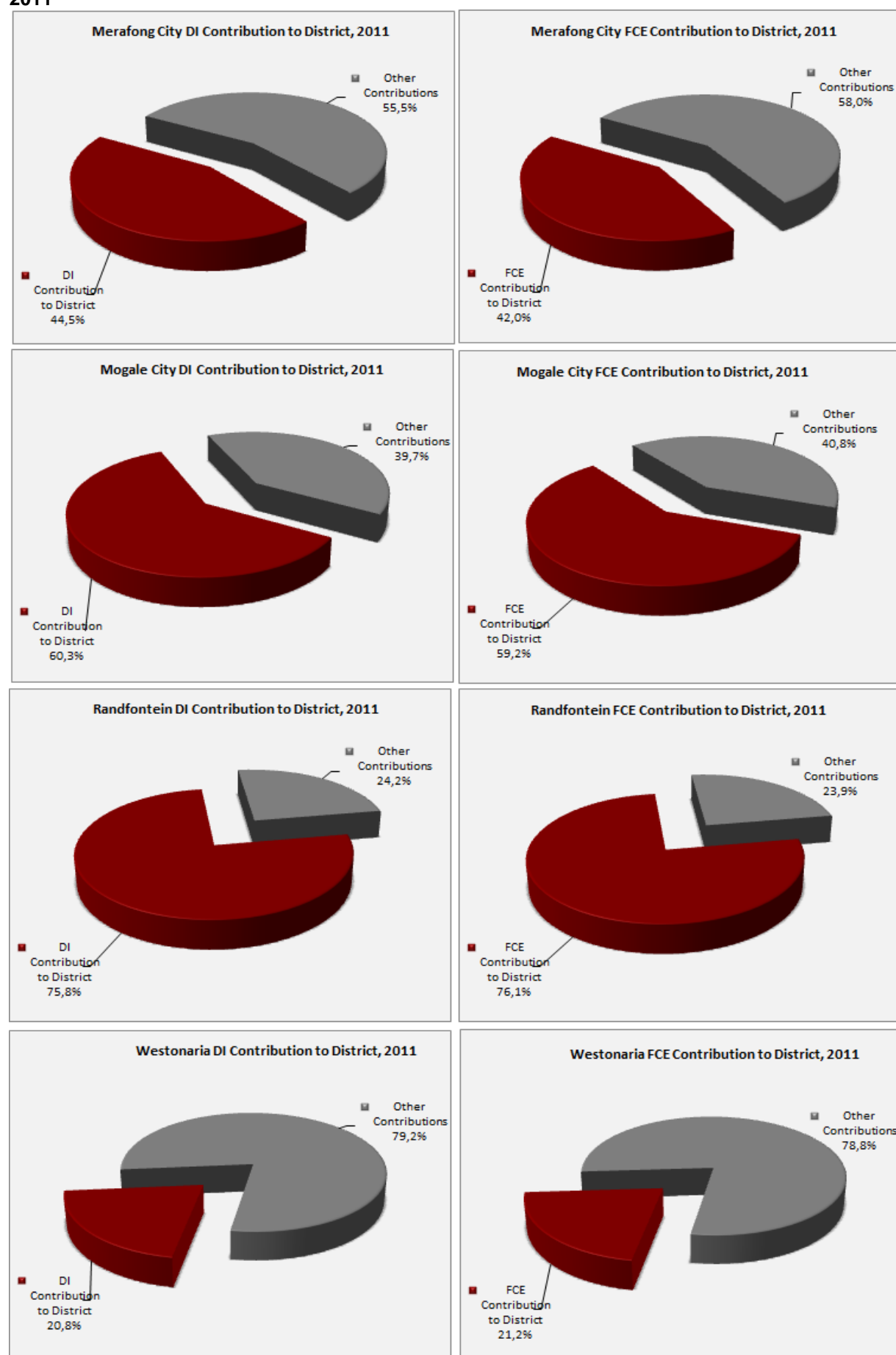
Source: Demacon, 2013

Table 6.2: Final Consumption Expenditure and Disposable Income Compound Growth Trends

	1996-2011	2001-2011	2006-2011
West Rand			
Final Consumption Expenditure (FCE)	1,7	2,6	2,7
Disposable Income (DI)	1,3	2,2	2,7

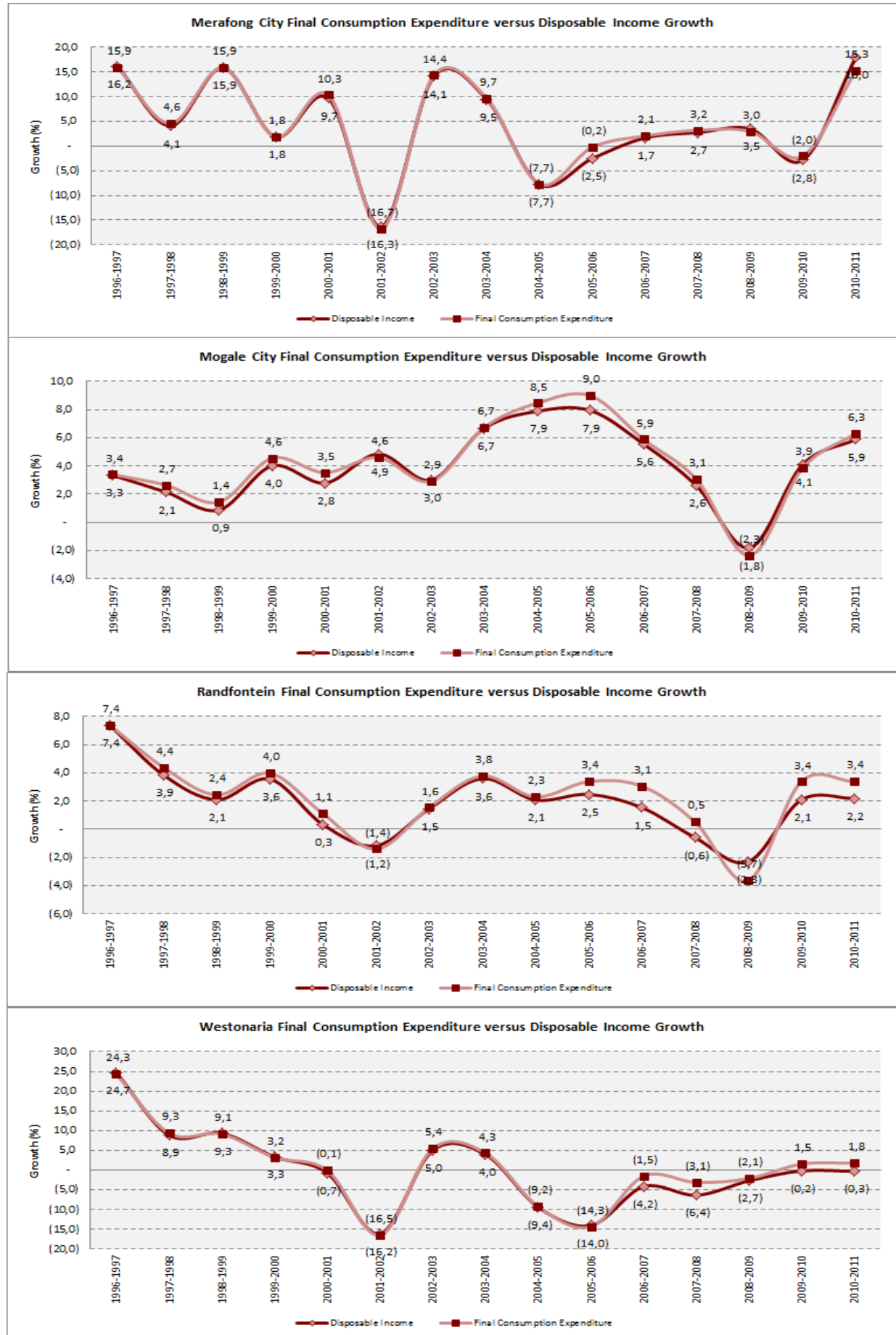
Source: Demacon, 2013

Figure 6.8: Contribution of Final Household Consumption Expenditure and Disposable Income, 2011



Source: Demacon, 2013

Figure 6.9: Local - Final Household Consumption Expenditure versus Disposable Income Growth, 1996-2011



Source: Demacon, 2013

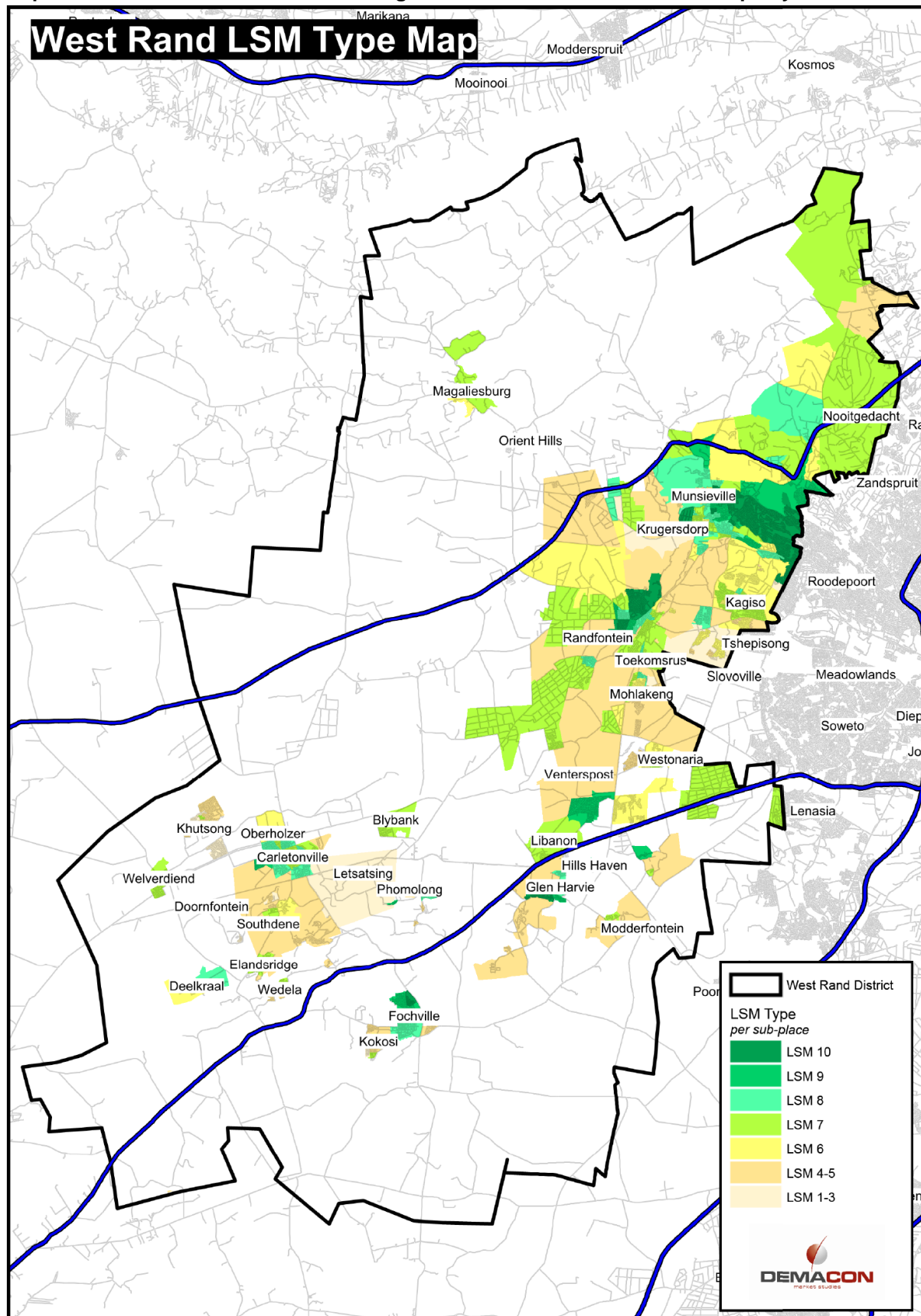
Table 6.2: Final Consumption Expenditure and Disposable Income Compound Growth Trends

	1996-2011	2001-2011	2006-2011
Merafong City			
Final Consumption Expenditure (FCE)	1,7	4,2	5,2
Disposable Income (DI)	1,5	4,4	5,9
Mogale City			
Final Consumption Expenditure (FCE)	4,8	3,3	2,5
Disposable Income (DI)	4,6	3,2	2,7
Randfontein			
Final Consumption Expenditure (FCE)	1,6	1,3	1,0
Disposable Income (DI)	1,1	0,6	0,6
Westonaria			
Final Consumption Expenditure (FCE)	(3,7)	(0,7)	0,4
Disposable Income (DI)	(4,7)	(2,8)	(1,1)

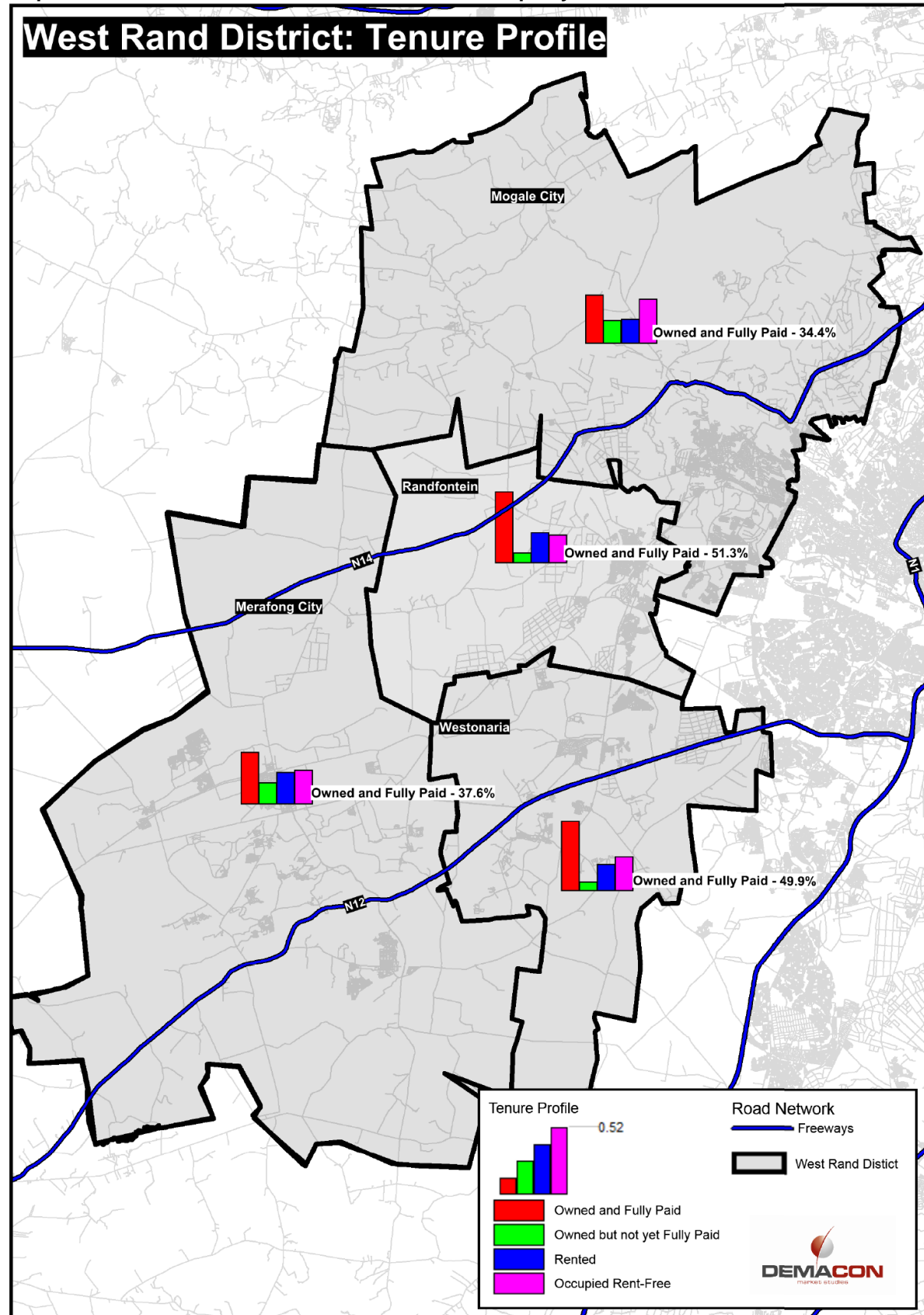
Source: Demacon, 2013

Disposable income growth and final consumption expenditure reflected similar trends over the past few years.

Map 6.13: Persons below Minimum Living Level – West Rand District Municipality



Map 6.14: Tenure Profile – West Rand District Municipality



6.5 SYNTHESIS

The following table is a summary of the West Rand District and the four local municipal economies (Merafong City, Mogale City, Randfontein and Westonaria) demographic profiles.

WEST RAND DISTRICT MUNICIPAL CONTEXT

- ✓ Approximately 798 968 people / 222 170 households in 2011 – representing 7.1% of the provincial population. The study area is characterised by a net population growth rate of 1.4% - including natural growth and the influx of immigrants.
- ✓ Predominant African Black population segment (76.4%) and Whites (19.2%).
- ✓ Moderate incidence of HIV (14.4%) – contributing to 60.2% of all deaths within the West Rand.
- ✓ Relatively moderate economically active population segment – 64.2% of which 49.9% is employed, reflecting moderated dependency ratios.

MERAFONG CITY LOCAL MUNICIPAL CONTEXT

- ✓ Approximately 208 979 people / 60 825 households in 2011 – representing 26.2% of the district population. The study area is characterised by a net population growth rate of 0.7% - including natural growth and the influx of immigrants.
- ✓ Predominant African Black population segment (87.3%) and Whites (12.0%).
- ✓ Moderate incidence of HIV (15.0%) – contributing to 64.7% of all deaths within Merafong City.
- ✓ Relatively moderate economically active population segment – 64.5% of which 79.7% is employed, reflecting low dependency ratios.

MOGALE CITY LOCAL MUNICIPAL CONTEXT

- ✓ Approximately 349 852 people / 94 642 households in 2011 – representing 43.8% of the district population. The study area is characterised by a net population growth rate of 2.2% - including natural growth and the influx of immigrants.
- ✓ Predominant African Black population segment (71.0%) and Whites (24.3%).
- ✓ Moderate incidence of HIV (13.6%) – contributing to 56.8% of all deaths within Mogale City.
- ✓ Relatively moderate economically active population segment – 45.4% of which 54.6% is employed, reflecting moderate dependency ratios.

RANDFONTEIN LOCAL MUNICIPAL CONTEXT

- ✓ Approximately 129 242 people / 39 324 households in 2011 – representing 16.2% of the district population. The study area is characterised by a net population growth rate of 1.0% - including natural growth and the influx of immigrants.
- ✓ Predominant African Black population segment (64.5%) and Whites (22.2%).
- ✓ Moderate incidence of HIV (13.1%) – contributing to 53.8% of all deaths within Randfontein.
- ✓ Relatively moderate economically active population segment – 62.1% of which 72.4% is employed, reflecting low dependency ratios.

WESTONARIA LOCAL MUNICIPAL CONTEXT

- ✓ Approximately 109 993 people / 27 380 households in 2011 – representing 13.8% of the district population. The study area is characterised by a net population growth rate of 0.1% - including natural growth and the influx of immigrants.
- ✓ Predominant African Black population segment (86.4%) and Whites (12.9%).
- ✓ Moderate incidence of HIV (15.1%) – contributing to 68.3% of all deaths within Westonaria.
- ✓ Relatively moderate economically active population segment – 57.8% of which 55.5% is employed, reflecting moderate dependency ratios.

Table 6.4: Economy Demographic Profile

Demographic Characteristic	Value				
	West Rand	Merafong City	Mogale City	Randfontein	Westonaria
Population – 2001	✓ 736 461 people	✓ 192 065 people	✓ 298 958 people	✓ 130 391 people	✓ 115 046 people
Population – 2011	✓ 798 968 people	✓ 208 979 people	✓ 349 852 people	✓ 129 242 people	✓ 109 993 people
Racial Profile – 2011	✓ African Blacks – 76.4%	✓ African Blacks – 87.3%	✓ African Blacks – 71.0%	✓ African Blacks – 64.5%	✓ African Blacks – 86.4%
	✓ Whites – 19.2%	✓ Whites – 12.0%	✓ Whites – 24.3%	✓ Whites – 22.2%	✓ Whites – 12.9%
	✓ Indian Asians – 1.9%	✓ Indian Asians – 0.1%	✓ Indian Asians – 4.1%	✓ Indian Asians – 0.3%	✓ Indian Asians – 0.2%
	✓ Coloureds – 2.5%	✓ Coloureds – 0.5%	✓ Coloureds – 0.6%	✓ Coloureds – 12.7%	✓ Coloureds – 0.5%
Households – 2001	✓ 218 038 households	✓ 53 397 households	✓ 90 996 households	✓ 40 057 households	✓ 33 589 households
Households – 2011	✓ 222 170 households	✓ 60 825 households	✓ 94 642 households	✓ 39 324 households	✓ 27 380 households
Average household size 2001	✓ 3.5 members	✓ 3.6 members	✓ 3.3 members	✓ 3.3 members	✓ 3.4 members
Average household size 2011	✓ 3.8 members	✓ 3.4 members	✓ 3.7 members	✓ 3.3 members	✓ 4.0 members
Population Growth	✓ Average Annual Growth – 1996 to 2011: 1.4%	✓ Average Annual Growth – 1996 to 2011: 0.7%	✓ Average Annual Growth – 1996 to 2011: 2.2%	✓ Average Annual Growth – 1996 to 2011: 1.0%	✓ Average Annual Growth – 1996 to 2011: -0.1%
	✓ Ten year compound growth – 2001 to 2011: 0.8%	✓ Ten year compound growth – 2001 to 2011: 0.8%	✓ Ten year compound growth – 2001 to 2011: 1.6%	✓ Ten year compound growth – 2001 to 2011: -0.1%	✓ Ten year compound growth – 2001 to 2011: -0.4%
Household Growth	✓ Average Annual Growth – 1996 to 2010: 2.2%	✓ Average Annual Growth – 1996 to 2010: 3.3%	✓ Average Annual Growth – 1996 to 2010: 2.2%	✓ Average Annual Growth – 1996 to 2010: 1.9%	✓ Average Annual Growth – 1996 to 2010: 0.7%
	✓ Ten year compound growth – 2000 to 2010: 0.2%	✓ Ten year compound growth – 2000 to 2010: 1.3%	✓ Ten year compound growth – 2000 to 2010: 0.4%	✓ Ten year compound growth – 2000 to 2010: -0.2%	✓ Ten year compound growth – 2000 to 2010: -2.0%
HIV positive segment 2001	✓ 14.0%	✓ 14.7%	✓ 12.8%	✓ 12.0%	✓ 17.8%
HIV positive segment 2011	✓ 14.4%	✓ 15.0%	✓ 13.6%	✓ 13.1%	✓ 15.1%
HIV Growth	✓ 2001 to 2011: 0.4%	✓ 2001 to 2011: -0.3%	✓ 2001 to 2011: 0.8 %	✓ 2001 to 2011 - 1.1%	✓ 2001 to 2011: -2.7%
AIDS deaths as percentage of total deaths 2001	✓ 55.4%	✓ 56.6%	✓ 52.6%	✓ 50.7%	✓ 64.1%
AIDS deaths as percentage of total deaths 2011	✓ 60.2%	✓ 64.7%	✓ 56.8%	✓ 53.8%	✓ 68.3%
Economically Active Population Segment 2011	✓ 64.2%	✓ 64.5%	✓ 67.0%	✓ 62.1%	✓ 57.8%
Employed Segment of EAP 2011	✓ 50.1%	✓ 79.7%	✓ 45.4%	✓ 72.4%	✓ 55.5%
Unemployed Segment of EAP 2011	✓ 49.9%	✓ 20.3%	✓ 54.6%	✓ 27.6%	✓ 44.2%
Final Household Consumption Expenditure	✓ Average annual growth – 1996 to 2011: 1.7%	✓ Average annual growth – 1996 to 2011: 1.7%	✓ Average annual growth – 1996 to 2011: 4.8%	✓ Average annual growth – 1996 to 2011: 1.6%	✓ Average annual growth – 1996 to 2011: -3.7%
	✓ Ten year compound	✓ Ten year compound	✓ Ten year compound	✓ Ten year compound	✓ Ten year compound

Demographic Characteristic	Value				
	✓ growth: 2.6% ✓ Five year compound growth: 2.7 %	✓ growth: 4.2% ✓ Five year compound growth: 5.2%	✓ growth: 3.3% ✓ Five year compound growth: 2.5%	✓ growth: 1.3% ✓ Five year compound growth: 1.3 %	✓ growth: -0.7% ✓ Five year compound growth: 0.4 %
Disposable Household Income	✓ Average annual growth – 1996 to 2011: 1.3% ✓ Ten year compound growth: 2.2% ✓ Five year compound growth: 2.7%	✓ Average annual growth – 1996 to 2011: 1.5% ✓ Ten year compound growth: 4.4% ✓ Five year compound growth: 5.9%	✓ Average annual growth – 1996 to 2011: 4.6% ✓ Ten year compound growth: 3.2% ✓ Five year compound growth: 2.7%	✓ Average annual growth – 1996 to 2011: 1.1% ✓ Ten year compound growth: 0.6% ✓ Five year compound growth: 0.6	✓ Average annual growth – 1996 to 2011: -4.7% ✓ Ten year compound growth: -2.8% ✓ Five year compound growth: -1.1%

CHAPTER 7: LABOUR FORCE PROFILE

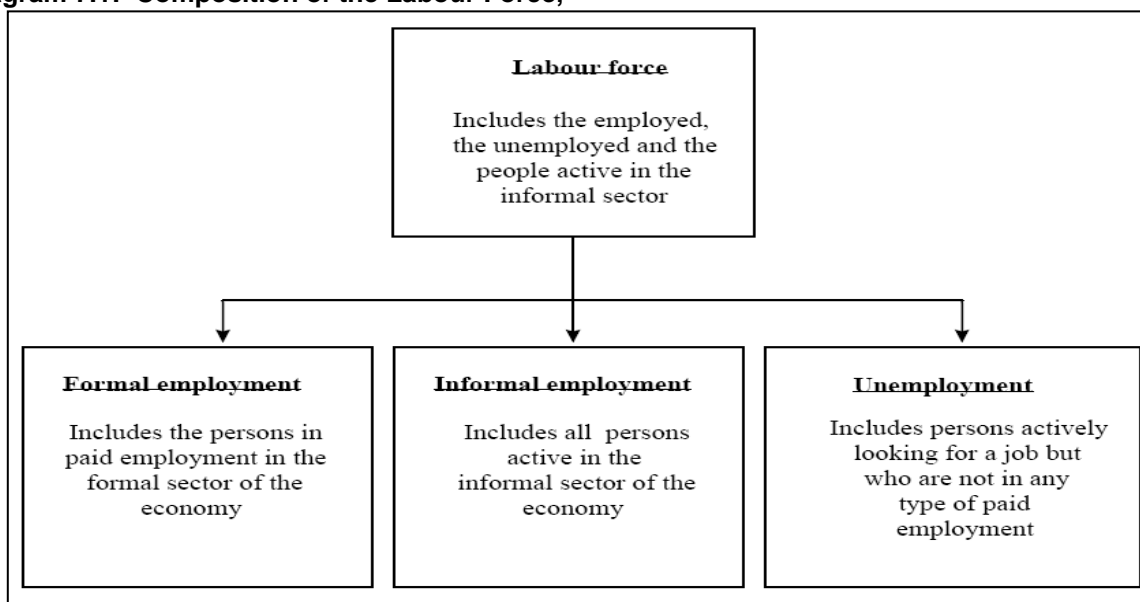
7.1 INTRODUCTION

This Chapter provides information on the labour force and employment profile of the local economy. The Chapter covers aspects of size of the local labour force, the economic employment profile, labour force trends in trends of growth, skills base and growth trends and sectoral GVA and employment growth trends for the West Rand District and the local municipalities. This provides insight into the labour force profile of the district as well as the local municipal areas.

7.2 LABOUR AND EMPLOYMENT

Labour and employment also impacts on the effectiveness of a region's economy. In general the labour force refers to those people who are available for employment in a certain areas. There are a number of components linked to the labour force – refer to Diagram 5.1.

Diagram 7.1: Composition of the Labour Force,



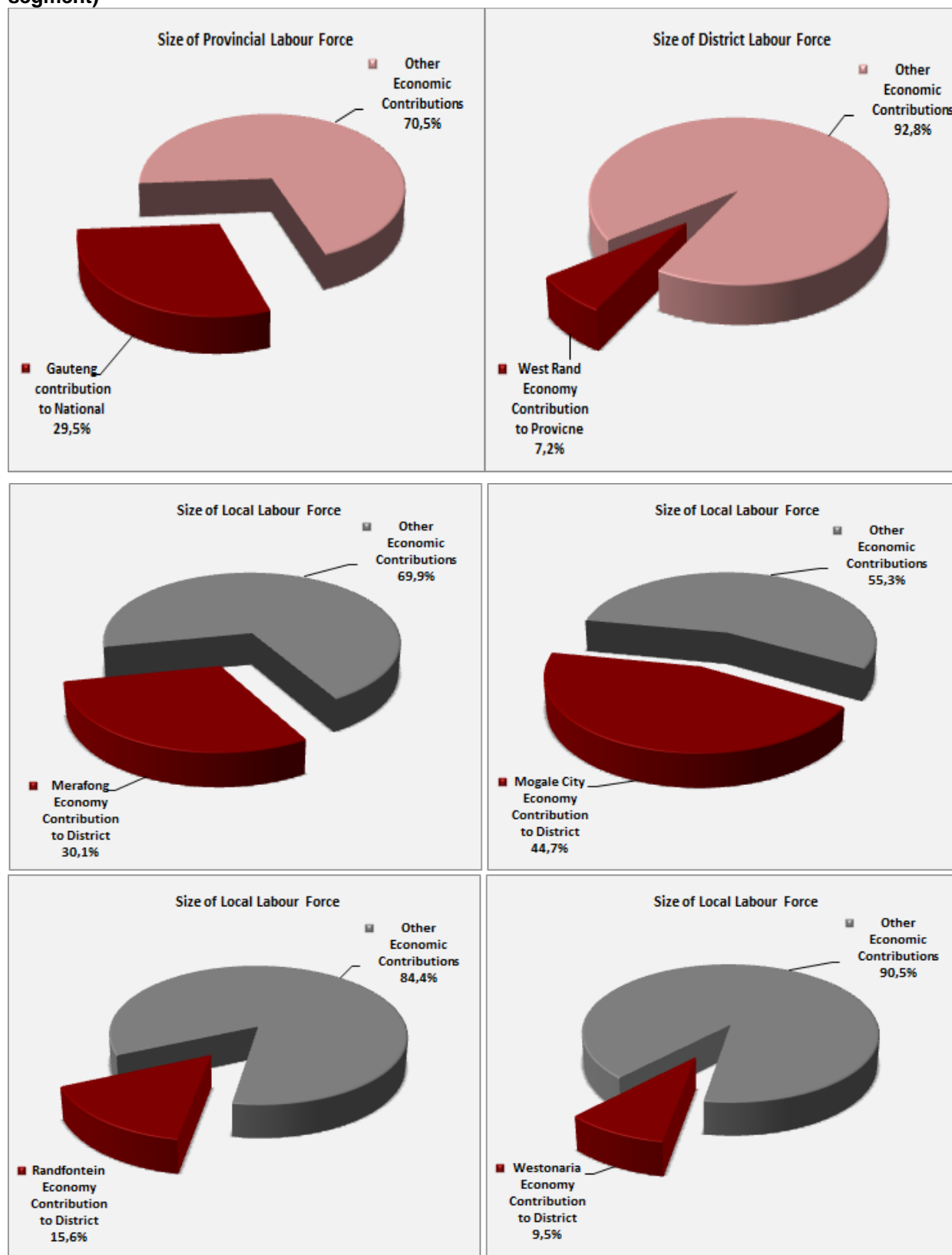
Source: DBSA, 2001

Impact of Global Economic Crisis on Domestic Employment Levels

The impact of the global economic crisis on employment levels in South Africa has been devastating, with almost 780 000 jobs lost during the 18 months to June 2010 in the South African economy, including the informal sector as reported in the Quarterly Labour Force Survey. In the formal sectors, employment losses amounted to around 350 000, with the majority of the job losses in 2009 reported by the services sectors. The manufacturing sector shed 99 673 and the agriculture, forestry and fishing sector lost 95 491, while the mining and quarrying sector reported 28 621 employment losses. In an attempt to reduce costs and raise productivity, the farming community has increasingly considered mechanisation alternatives. This is of particular concern since the overall sector accounts for 6.4% of total employment in the economy and mostly in the low skilled and rural categories.

7.2.1 SIZE OF THE LOCAL LABOUR FORCE

Figure 7.1: Provincial, District and Local economy labour force (formally and informally employed segment)

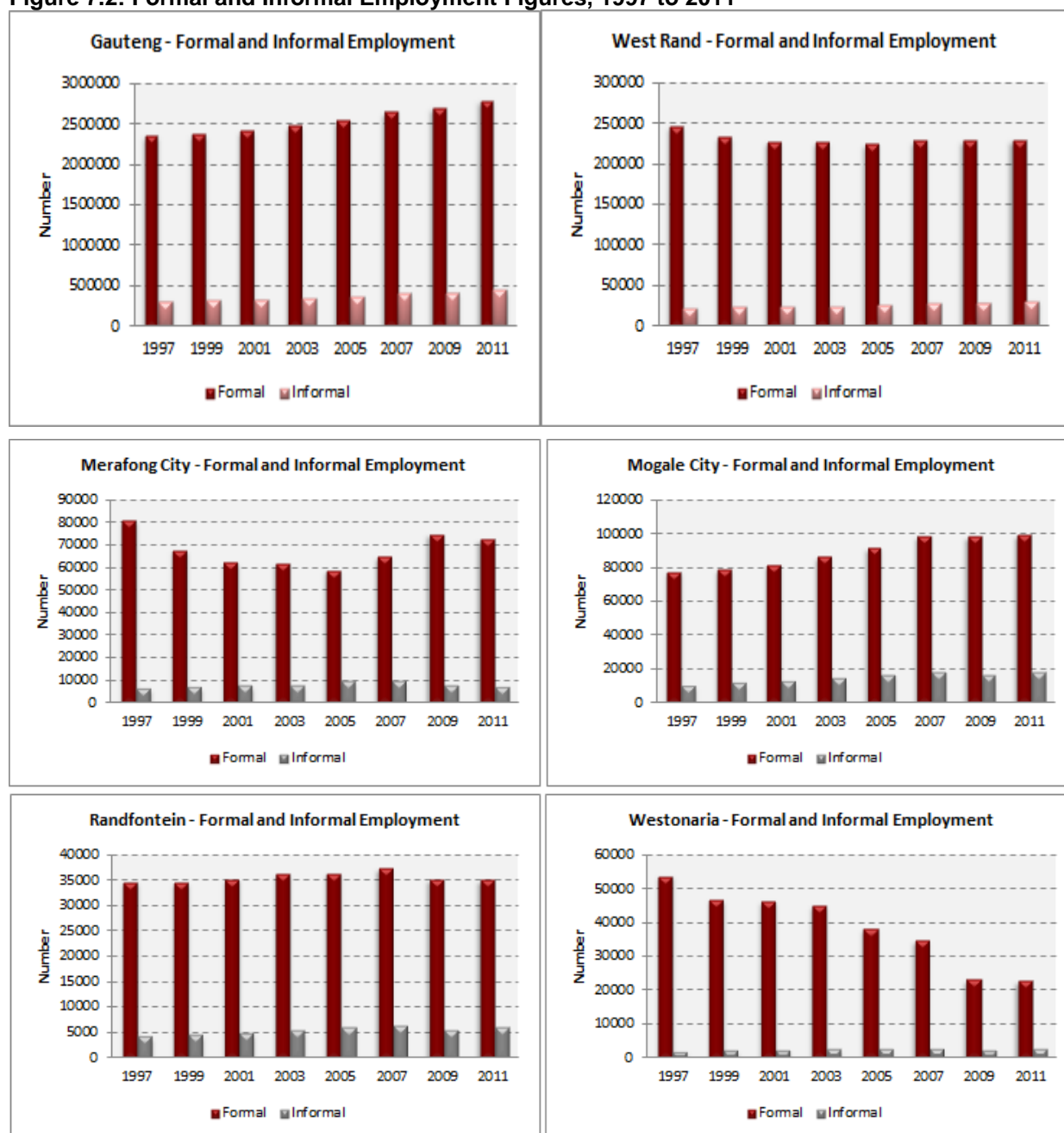


Source: Demacon Ex. Quantec, 2013

Findings: (Figure 7.1)

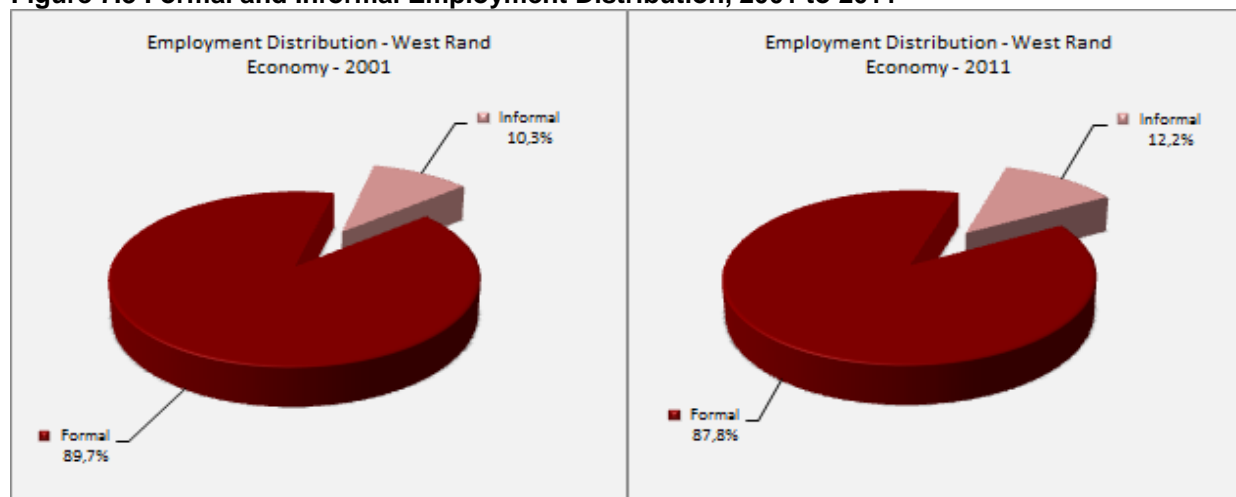
- ✓ Figure 7.11 indicates that the *West Rand district* economy contributes a mere 7.2% of total employees towards the provincial labour force
- ✓ Figure 7.1 indicates that:
 - The *Merafong City* local economy contributes a 30.1% of total employees towards the district labour force.
 - The *Mogale City* local economy contributes a 44.7% of total employees towards the district labour force.
 - The *Randfontein* local economy contributes a 15.6% of total employees towards the district labour force.
 - The *Westonaria* local economy contributes a 9.5% of total employees towards the district labour force.

Figure 7.2: Formal and Informal Employment Figures, 1997 to 2011



Source: Demacon Ex. Quantec, 2013

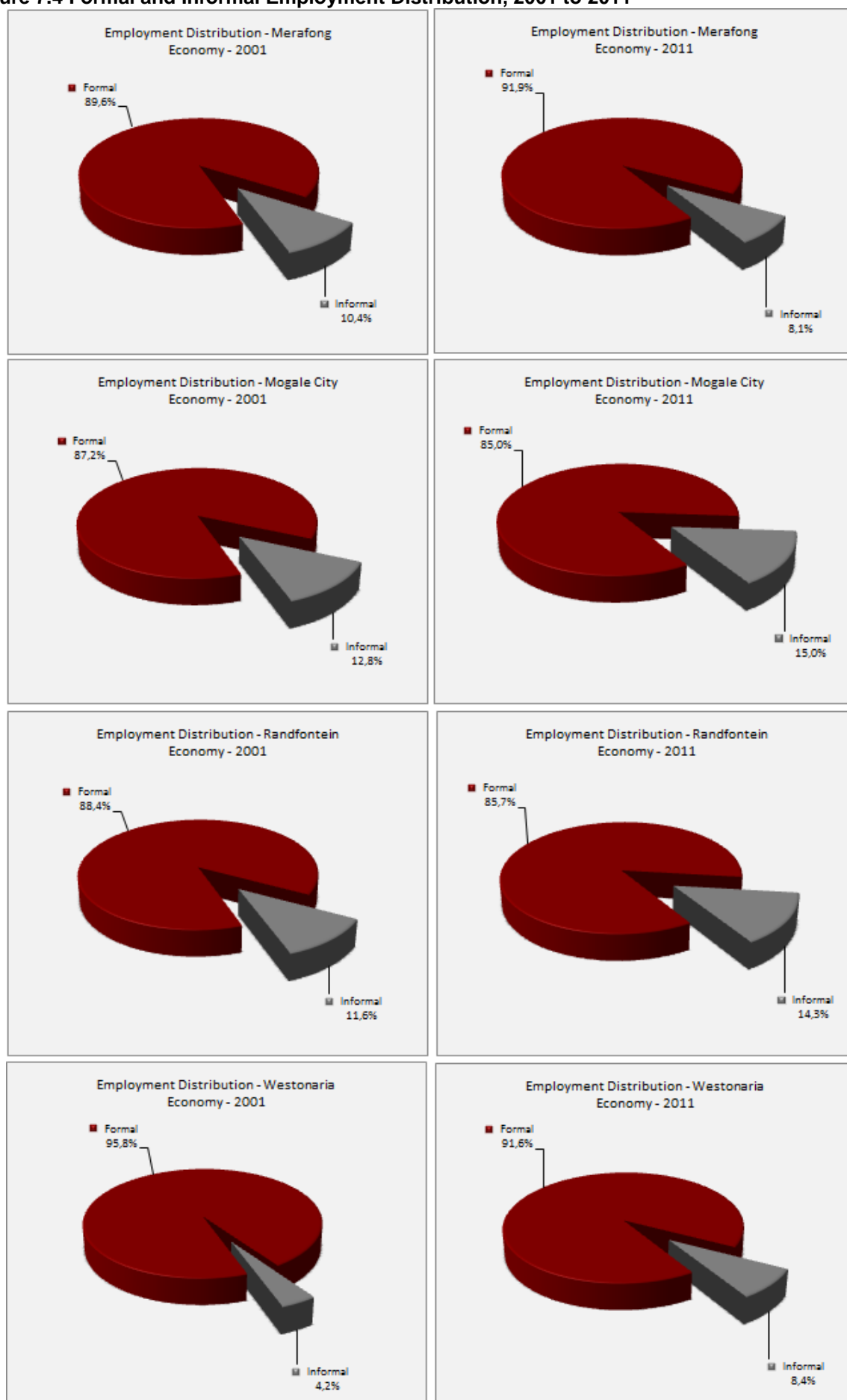
Figure 7.3 Formal and Informal Employment Distribution, 2001 to 2011



Findings: (Figure 7.3 and Figure 7.4)

- ✓ Figure 4.9 indicates that the *West Rand* district economy's labour force is made up of large segment of formal employees, with a small segment of informal employees. The informal sector increase its labour force share slightly between 2001 and 2011, and the formal sector reflected a slight decrease.
- ✓ In terms of the local economy the following is evident:
 - *Merafong City* is characterised by a larger segment of formal labour than informal labour. The formal sector increased its share of the local labour force between 2001 and 2011.
 - *Mogale City* is characterised by a larger segment of formal labour than informal labour. The informal sector increased its share of the local labour force between 2001 and 2011.
 - *Randfontein* is characterised by a larger segment of formal labour than informal labour. The informal sector increased its share of the local labour force between 2001 and 2011.
 - *Westonaria* is characterised by a larger segment of formal labour than informal labour. The informal sector increased (doubled) its share of the local labour force between 2001 and 2011.

Figure 7.4 Formal and Informal Employment Distribution, 2001 to 2011



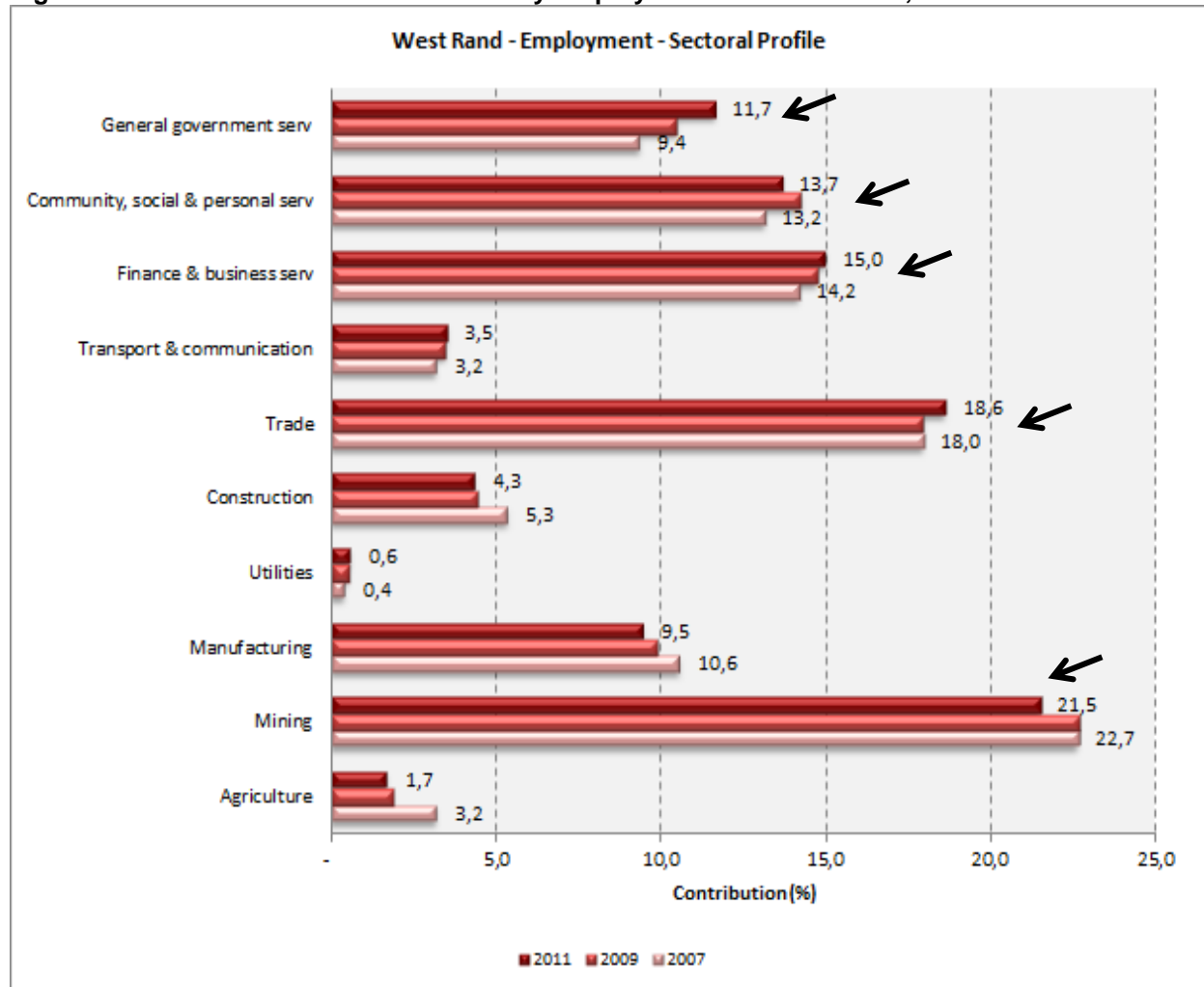
Source: Demacon Ex. Quantec, 2013

7.3 SECTORAL PROFILE - EMPLOYMENT

Subsequent paragraphs provide a more in-depth assessment of the structure of the regional and local economies from a labour perspective.

7.3.1 WEST RAND ECONOMY EMPLOYMENT SECTORAL PROFILE

Figure 7.5: West Rand District Economy Employment Sectoral Profile, 2007 to 2011



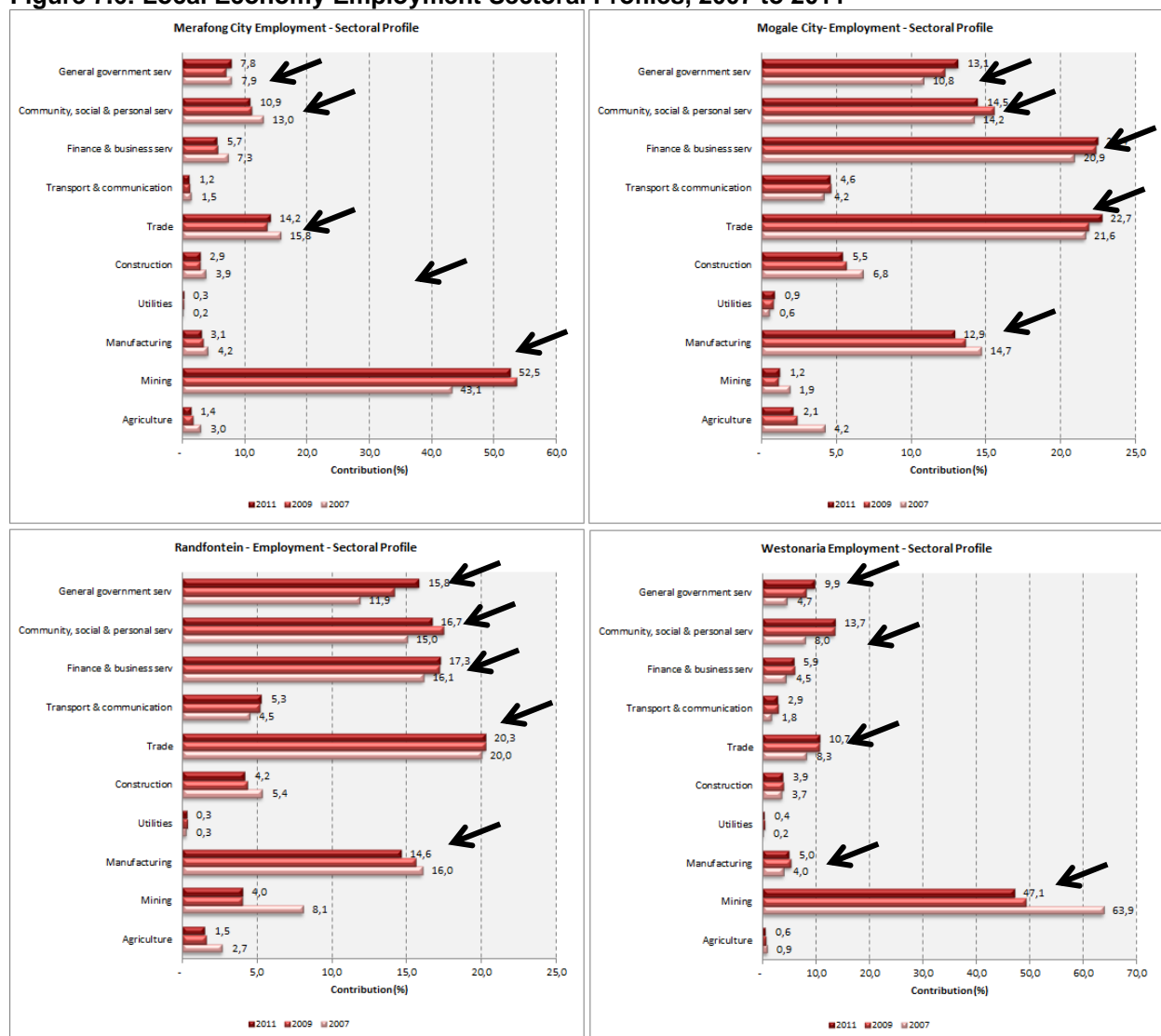
Source: Demacon Ex. Quantec, 2013

Findings: (Figure 7.5)

- ✓ The dominant employment sectors include:
 - Mining – 21.5%
 - Trade – 18.6%
 - Finance and Business Services – 15.0%
 - Community, Social and Personal Services – 13.7%
 - General Government Services – 11.7%
- ✓ Of the employment sectors six have increased their market share between 2007 and 2011 including: Utilities, Trade, Transport and Communication, Finance and Business Services, Community, Social and Personal Services and General Government Services.

7.3.2 LOCAL EMPLOYMENT SECTORAL PROFILES

Figure 7.6: Local Economy Employment Sectoral Profiles, 2007 to 2011



Source: Demacon Ex. Quantec, 2013

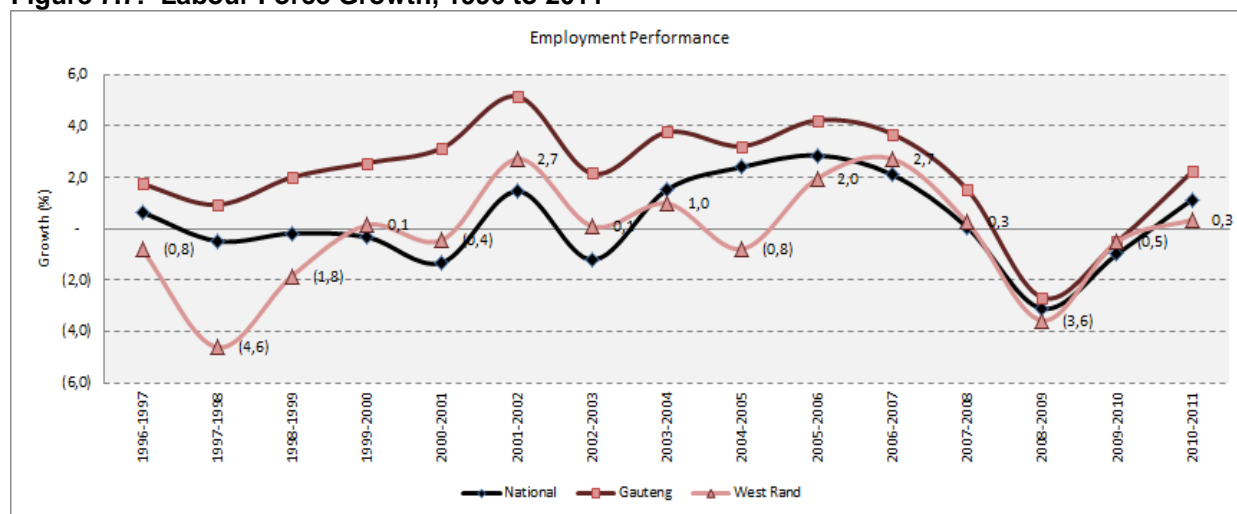
Findings: (Figure 7.6)

Table 7.1: The Dominant Employment Sectors Include:

Merafong City	Mogale City	Randfontein	Westonaria
✓ Mining – 52.5%	✓ Trade – 22.7%	✓ Trade – 20.3%	✓ Mining – 47.1%
✓ Trade – 14.2%	✓ Finance and Business Services – 22.4%	✓ Finance and Business Services – 17.3%	✓ Community, Social & Personal Services – 13.7%
✓ Community, Social & Personal Services – 10.9%	✓ Community, Social & Personal Services – 14.5%	✓ Community, Social & Personal Services – 16.7%	✓ Trade – 10.7%
✓ General Government Services – 7.8%	✓ General Government Services – 13.1%	✓ General Government Services – 15.8%	✓ General Government Services – 9.9%
✓ Finance and Business Services – 5.7%	✓ Manufacturing – 12.9%	✓ Manufacturing – 14.6%	✓ Finance and Business Services – 5.9%

7.4 LABOUR FORCE GROWTH TRENDS

Figure 7.7: Labour Force Growth, 1996 to 2011

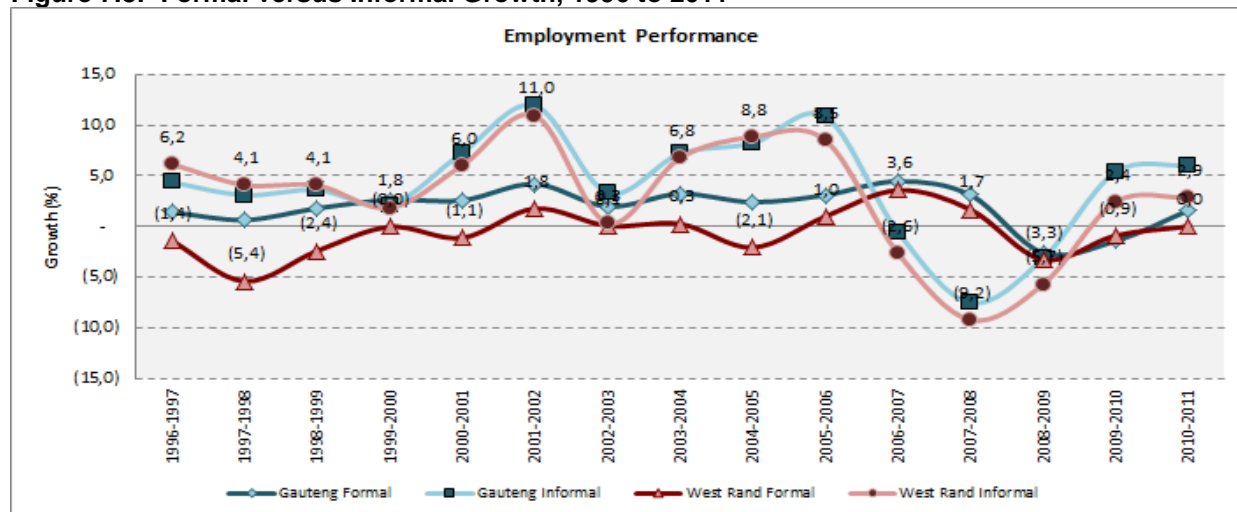


Source: Demacon Ex. Quantec, 2013

Findings: (Figure 7.7)

- ✓ The district and provincial economies reflected a similar growth trend pattern as the national economy.
- ✓ The average annual growth rate of the national economy over this period amounted to 0.3% per annum, the provincial economy amounted to 2.2% per annum, the district economy to -0.2% per annum.

Figure 7.8: Formal versus Informal Growth, 1996 to 2011

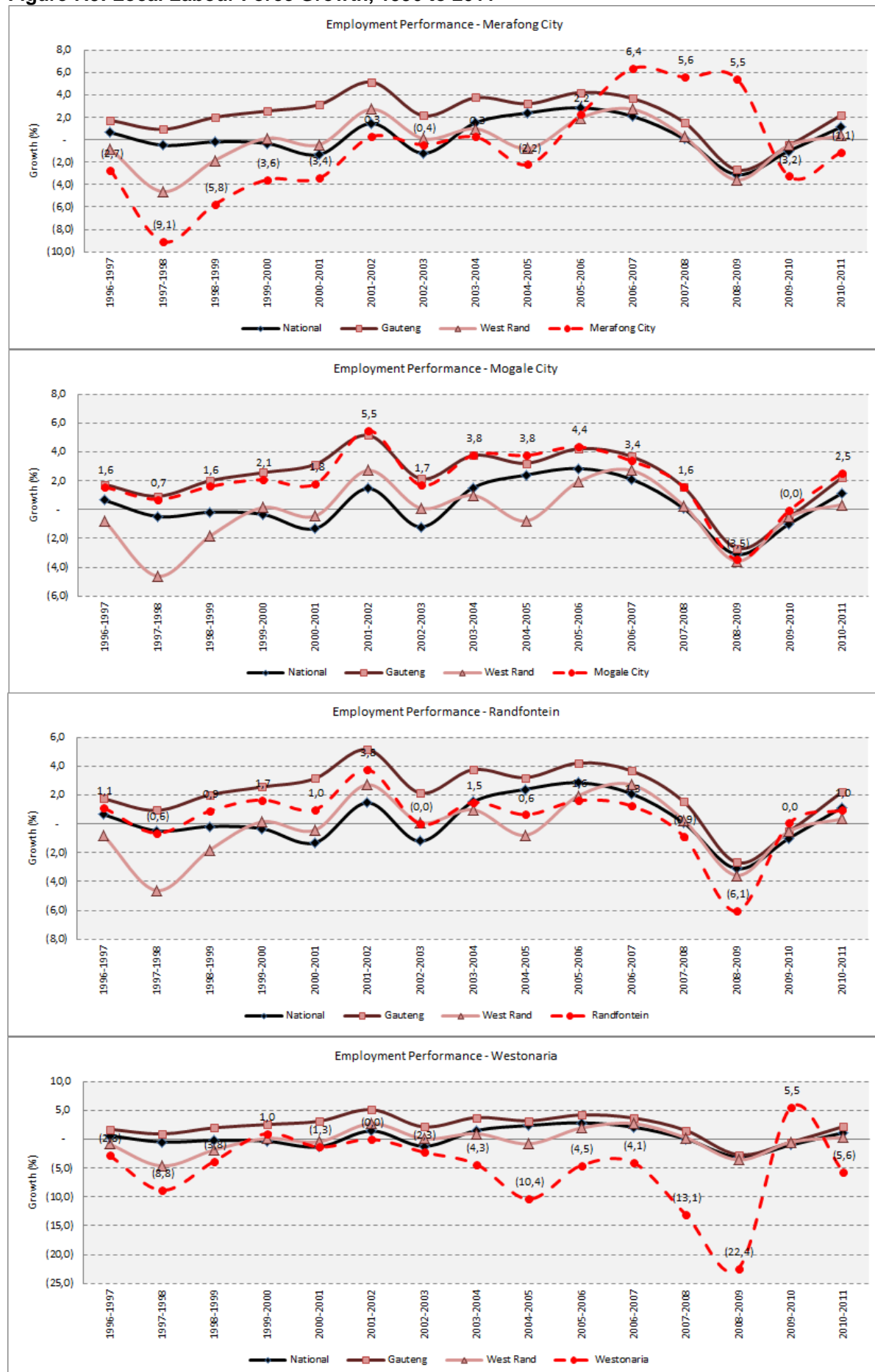


Source: Demacon Ex. Quantec, 2013

It is evident that the formal employment segment reflected more stable/consistent growth over this time period compared to the informal sector.

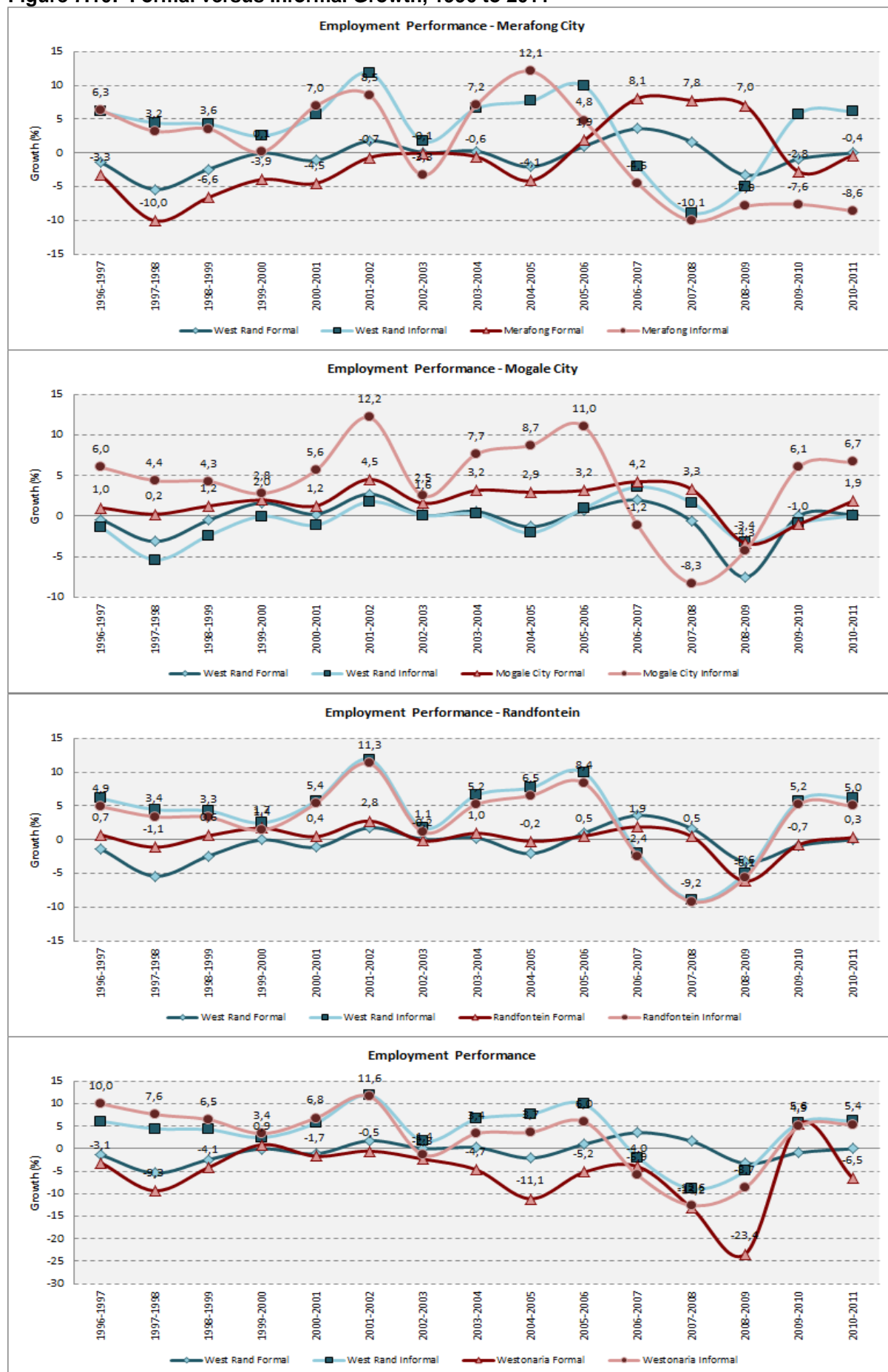
- ✓ **Gauteng provincial economy** - The average annual employment growth rates over this time period amounted to **1.9% per annum** for the **formal employment** segment and **4.2% per annum** for the **informal employment** segment.
- ✓ **West Rand district economy** - The average annual employment growth rates over this time period amounted to **-0.5% per annum** for the **formal employment** segment and **3.0% per annum** for the **informal employment** segment.

Figure 7.9: Local Labour Force Growth, 1996 to 2011



Source: Demacon Ex. Quantec, 2013

Figure 7.10: Formal versus Informal Growth, 1996 to 2011



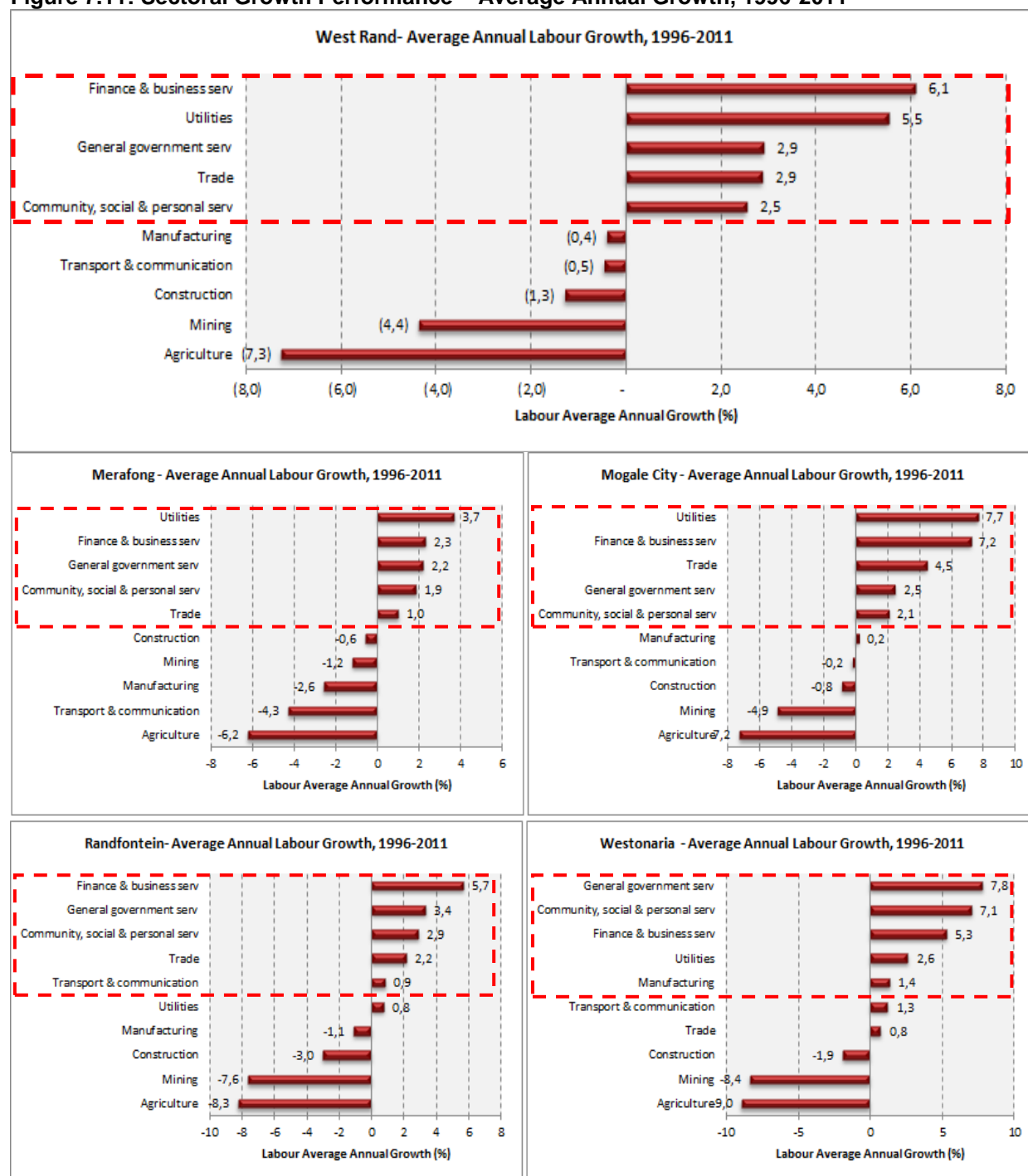
Source: Demacon Ex. Quantec, 2013

Findings: (Figure 7.9 & Figure 7.10)

- ✓ *Gauteng provincial economy* - The average annual growth rate of the provincial economy over this period amounted to 2.2% per annum and the average annual employment growth rates over this time period amounted to 1.9% per annum for the formal employment segment and 4.2% per annum for the informal employment segment.
- ✓ *West Rand district economy* - The average annual growth rate of the district economy over this period amounted to 0.2% per annum and the average annual employment growth rates over this time period amounted to -0.5% per annum for the formal employment segment and 3.0% per annum for the informal employment segment.
- ✓ *Merafong City local economy* - The average annual growth rate of the local economy over this period amounted to -0.8% per annum and the average annual employment growth rates over this time period amounted to -0.8% per annum for the formal employment segment and 0.7% per annum for the informal employment segment.
- ✓ *Mogale City local economy* - The average annual growth rate of the local economy over this period amounted to 2.1% per annum and the average annual employment growth rates over this time period amounted to 1.8% per annum for the formal employment segment and 4.3% per annum for the informal employment segment.
- ✓ *Randfontein local economy* - The average annual growth rate of the local economy over this period amounted to 0.5% per annum and the average annual employment growth rates over this time period amounted to 0.1% per annum for the formal employment segment and 2.9% per annum for the informal employment segment.
- ✓ *Westonaria local economy* - The average annual growth rate of the local economy over this period amounted to -5.1% per annum and the average annual employment growth rates over this time period amounted to -5.5% per annum for the formal employment segment and 2.7% per annum for the informal employment segment.

7.4.1 SECTORAL GROWTH PERFORMANCE (LABOUR FORCE CONTRIBUTION)

Figure 7.11: Sectoral Growth Performance – Average Annual Growth, 1996-2011



Source: Demacon Ex. Quantec, 2013

Table 7.2: Sectoral Labour Force Growth Performance, 1996 to 2011

	1996-1997	1997-1998	1998-1999	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	Average
West Rand																
Agriculture	0,5	0,9	1,5	2,0	(7,2)	(0,4)	1,2	4,8	9,8	8,9	(1,8)	(13,6)	(15,8)	(14,2)	(4,0)	(1,8)
Mining	(4,6)	(10,4)	(4,5)	2,3	0,5	0,9	0,1	0,2	(10,6)	(6,1)	(4,6)	(17,9)	(34,5)	13,1	(3,2)	(5,3)
Manufacturing	(1,4)	(3,1)	(1,3)	(0,4)	1,5	2,2	1,2	3,8	3,5	3,0	2,7	(2,1)	(6,3)	(3,1)	(0,2)	(0,0)
Utilities	(2,1)	(0,3)	(6,0)	(13,3)	(1,2)	(2,4)	5,0	12,6	14,7	4,8	10,4	8,6	5,2	4,8	4,9	3,1
Construction	(3,5)	(8,9)	(14,0)	(6,9)	0,2	5,0	(7,9)	8,4	19,0	14,3	0,2	(7,7)	(8,9)	(4,1)	4,2	(0,7)
Trade	3,0	6,4	9,0	2,9	3,3	7,4	(1,3)	5,9	7,9	2,9	2,8	0,7	(1,8)	1,3	2,1	3,5
Transport & communication	(2,1)	(6,8)	(3,4)	(3,2)	0,4	0,7	6,3	2,6	3,2	0,5	3,1	8,9	(1,1)	0,8	2,4	0,8
Finance & business serv	10,5	9,8	9,6	11,6	13,4	11,2	6,4	3,1	(3,5)	6,0	5,6	4,1	(4,0)	(1,4)	3,3	5,7
Community, social & personal serv	3,8	4,5	5,3	5,8	(0,9)	2,8	2,5	2,8	3,0	2,6	6,4	5,5	2,3	(1,9)	(1,3)	2,9
General government serv	0,9	(0,6)	(1,5)	(1,4)	0,4	2,6	4,5	3,4	4,3	4,3	5,3	5,8	4,6	4,1	6,8	2,9
Merafong City																
Agriculture	4,8	2,7	3,0	0,7	(10,3)	(3,8)	(4,7)	(4,9)	(3,2)	(5,1)	(12,1)	(20,3)	(21,5)	(13,5)	(5,6)	(6,2)
Mining	(8,4)	(18,0)	(14,3)	(8,9)	(7,2)	(1,9)	0,6	(2,2)	(9,4)	4,9	18,0	17,4	18,0	(4,2)	(2,2)	(1,2)
Manufacturing	(0,5)	(5,0)	(2,1)	(2,6)	(2,2)	(2,2)	(3,7)	0,6	1,5	0,1	0,4	(5,0)	(9,0)	(5,7)	(3,7)	(2,6)
Utilities	(0,1)	4,8	4,0	(2,1)	3,8	(3,9)	(5,6)	2,2	6,5	2,3	15,5	16,0	6,8	1,4	3,9	3,7
Construction	2,8	(3,4)	(7,2)	1,2	6,4	4,7	(13,5)	1,1	12,6	9,8	(2,6)	(9,0)	(9,7)	(5,4)	3,5	(0,6)
Trade	3,4	3,1	4,7	(1,1)	(0,5)	3,4	(3,7)	3,4	6,4	0,9	0,2	(1,4)	(3,1)	(0,6)	0,4	1,0
Transport & communication	(3,2)	(8,0)	(3,2)	(3,9)	(3,4)	(6,2)	0,1	(2,8)	(2,7)	(7,4)	(6,7)	(2,1)	(12,4)	2,9	(4,8)	(4,3)
Finance & business serv	7,3	4,5	5,4	7,1	9,8	8,4	6,3	5,7	(2,4)	2,6	(0,8)	(3,8)	(11,7)	(3,6)	0,1	2,3
Community, social & personal serv	13,5	9,0	8,2	5,4	(2,1)	1,4	0,9	1,6	1,7	(0,7)	0,5	(1,4)	(4,0)	(3,4)	(2,4)	1,9
General government serv	11,6	4,6	2,1	(1,1)	0,1	1,1	3,3	2,7	3,2	0,9	(0,7)	(1,0)	(1,9)	3,0	5,2	2,2
Mogale City																
Agriculture	0,1	(0,0)	(0,2)	(1,1)	(11,8)	(6,5)	(7,5)	(5,5)	(1,4)	(2,6)	(12,7)	(23,9)	(28,7)	(0,7)	(6,0)	(7,2)
Mining	(10,9)	(15,1)	(9,8)	(2,0)	(1,1)	2,5	2,4	7,1	(6,9)	(4,3)	(2,2)	(15,1)	(34,2)	17,0	(0,2)	(4,9)
Manufacturing	(0,0)	(2,0)	(0,2)	0,4	1,8	2,9	1,0	3,5	3,3	2,4	2,1	(2,1)	(7,2)	(2,7)	(0,1)	0,2
Utilities	(4,6)	(2,9)	(8,3)	(14,4)	(0,6)	4,5	13,5	23,3	25,6	14,4	19,1	17,6	11,4	9,2	7,3	7,7
Construction	(0,9)	(6,6)	(11,9)	(5,2)	1,1	5,4	(8,8)	6,8	17,0	12,6	(1,4)	(8,9)	(11,0)	(4,5)	3,9	(0,8)
Trade	6,4	8,4	10,0	4,5	3,9	8,8	(0,2)	5,3	8,0	3,7	2,5	1,0	(1,9)	2,4	4,2	4,5
Transport & communication	(5,2)	(9,8)	(6,5)	(5,9)	(1,4)	0,4	5,8	2,5	3,0	0,8	3,0	9,2	(1,5)	0,9	1,3	(0,2)
Finance & business serv	9,9	9,2	9,4	11,7	14,2	15,2	8,7	5,6	(1,0)	9,0	8,6	7,5	(2,5)	(1,4)	4,4	7,2
Community, social & personal serv	2,3	3,1	3,9	4,5	(2,0)	3,1	1,8	2,1	2,4	2,2	6,0	5,7	1,3	(2,3)	(2,2)	2,1
General government serv	0,1	(1,6)	(2,5)	(2,4)	(0,3)	2,7	4,3	3,2	4,1	4,2	5,2	6,5	3,7	3,8	6,3	2,5

	1996-1997	1997-1998	1998-1999	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	Average
Randfontein																
Agriculture	(3,5)	(4,3)	(3,6)	(4,2)	(14,3)	(7,7)	(8,4)	(5,9)	(1,5)	(2,8)	(12,7)	(23,7)	(28,9)	3,8	(6,4)	(8,3)
Mining	(0,1)	(7,4)	(1,9)	3,5	(0,6)	(1,5)	(3,9)	(6,5)	(16,3)	(10,3)	(9,3)	(23,2)	(40,2)	12,7	(9,4)	(7,6)
Manufacturing	(3,3)	(4,8)	(3,0)	(2,6)	(0,4)	1,6	(0,3)	3,7	3,9	2,1	1,6	(2,2)	(7,6)	(3,3)	(2,1)	(1,1)
Utilities	1,7	3,3	(3,1)	(11,5)	1,6	(7,4)	1,6	5,3	7,6	(2,0)	5,9	2,2	(1,4)	4,4	3,4	0,8
Construction	(1,2)	(6,9)	(12,4)	(6,2)	(0,7)	2,6	(11,9)	2,9	12,8	8,7	(4,8)	(12,2)	(14,5)	(5,1)	3,4	(3,0)
Trade	4,5	6,6	8,2	2,6	1,9	6,5	(2,6)	2,9	5,4	1,0	0,1	(1,4)	(4,3)	0,2	0,9	2,2
Transport & communication	(2,0)	(6,6)	(3,3)	(3,0)	1,0	1,6	6,4	2,5	3,0	0,5	2,8	9,0	(1,8)	0,8	2,2	0,9
Finance & business serv	10,5	10,0	9,6	11,6	13,5	13,2	6,5	2,8	(4,0)	5,7	5,0	4,7	(5,4)	(1,2)	2,8	5,7
Community, social & personal serv	3,5	4,2	4,9	5,5	(1,2)	4,0	2,7	2,9	3,2	2,9	6,7	6,3	1,8	(2,0)	(1,5)	2,9
General government serv	1,7	(0,0)	(1,1)	(1,1)	0,8	3,6	5,0	3,7	4,6	4,6	5,5	6,8	4,0	4,8	7,7	3,4
Westonaria																
Agriculture	3,5	3,0	2,1	0,1	(12,1)	(8,6)	(11,2)	(10,2)	(7,0)	(8,4)	(18,2)	(29,5)	(36,2)	5,0	(6,9)	(9,0)
Mining	(4,9)	(12,2)	(6,5)	(0,3)	(2,9)	(1,8)	(2,8)	(6,4)	(15,3)	(7,4)	(6,5)	(20,2)	(35,0)	11,0	(14,1)	(8,4)
Manufacturing	5,9	2,9	4,6	4,3	4,6	3,9	0,9	3,9	4,1	1,4	1,4	(2,9)	(8,4)	(3,9)	(1,4)	1,4
Utilities	1,3	3,0	(3,3)	(11,5)	(4,3)	4,9	2,2	12,0	12,6	3,7	4,9	8,9	3,4	(2,0)	4,0	2,6
Construction	7,1	0,7	(5,7)	(0,3)	3,3	3,9	(12,7)	0,6	9,7	5,6	(7,4)	(14,7)	(17,3)	(4,8)	3,7	(1,9)
Trade	8,2	9,8	10,7	4,0	1,8	4,6	(5,6)	(1,1)	0,9	(3,5)	(4,3)	(5,9)	(8,9)	0,1	0,7	0,8
Transport & communication	1,4	(3,3)	(0,1)	(0,6)	2,6	1,6	6,0	1,3	1,9	(1,5)	1,4	7,5	(3,5)	0,8	3,4	1,3
Finance & business serv	21,2	18,9	16,3	16,2	15,0	12,0	3,4	(1,2)	(8,5)	(0,2)	(0,8)	(1,5)	(10,6)	(2,5)	2,2	5,3
Community, social & personal serv	12,1	12,0	12,0	11,7	3,8	8,2	6,0	5,5	5,7	5,5	9,5	8,9	4,2	(0,5)	1,9	7,1
General government serv	10,3	7,6	5,7	4,9	6,4	8,0	8,8	6,8	7,3	7,1	7,9	9,2	6,5	8,3	13,0	7,8

Source: Demacon Ex. Quantec, 2013

7.4.2 MANUFACTURING SECTOR GROWTH PERFORMANCE (LABOUR FORCE CONTRIBUTION)

Table 7.3: Manufacturing Sectoral Growth Performance, 1996 to 2011

	1996-1997	1997-1998	1998-1999	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	Average
West Rand																
Manufacturing	(0,8)	(2,9)	(1,0)	(0,6)	0,9	2,0	0,1	3,2	3,3	2,0	1,8	(2,5)	(7,6)	(3,2)	(1,0)	(0,4)
Food, beverages and tobacco	(1,9)	(0,2)	3,2	(2,6)	(0,2)	0,0	(8,8)	2,8	5,5	(1,7)	(0,7)	0,2	(3,4)	(3,9)	(4,3)	(1,1)
Textiles, clothing and leather goods	(1,0)	(10,1)	2,0	3,3	1,1	3,6	(0,8)	(0,7)	(3,4)	(0,5)	3,1	(7,8)	(9,8)	(5,5)	(1,7)	(1,9)
Wood and paper; publishing and printing	1,6	6,9	6,9	6,4	0,4	4,3	6,0	6,1	0,8	5,3	0,7	0,2	(9,6)	(3,0)	0,4	2,2
Petroleum products, chemicals, rubber and plastic	(1,9)	3,6	(1,1)	1,9	(2,5)	3,2	9,2	2,5	5,3	2,9	1,3	1,6	(6,5)	(4,8)	(0,7)	0,9
Other non-metal mineral products	(0,7)	(14,3)	(11,7)	(6,9)	(2,3)	(4,1)	(4,4)	9,0	14,1	1,9	0,8	(6,9)	(22,7)	(6,2)	(2,0)	(3,8)
Metals, metal products, machinery and equipment	0,4	(1,9)	(3,7)	(2,3)	3,8	4,0	5,0	4,1	0,3	5,2	3,8	(1,0)	(3,5)	0,4	0,4	1,0
Electrical machinery and apparatus	(1,6)	2,3	(2,6)	0,1	(4,0)	0,0	(3,3)	0,4	4,1	3,1	1,4	2,2	(8,2)	(4,3)	7,6	(0,2)
Radio, TV, instruments, watches and clocks	(9,3)	12,7	3,6	(4,8)	(9,4)	(4,3)	5,8	2,7	3,4	(0,7)	(6,0)	(2,2)	(0,2)	0,7	(1,3)	(0,6)
Transport equipment	(0,8)	2,2	5,4	5,6	3,8	0,1	(2,4)	0,7	1,5	1,7	(1,4)	0,9	(10,0)	(4,0)	(0,3)	0,2
Furniture and other manufacturing	0,3	(3,7)	2,4	4,8	4,3	6,2	2,4	0,5	1,5	0,3	4,9	(12,0)	(9,6)	(7,3)	(0,5)	(0,4)
Merafong City																
Manufacturing	(0,5)	(5,0)	(2,1)	(2,6)	(2,2)	(2,2)	(3,7)	0,6	1,5	0,1	0,4	(5,0)	(9,0)	(5,7)	(3,7)	(2,6)
Food, beverages and tobacco	(0,4)	1,1	5,4	(3,4)	(3,3)	(4,5)	(11,7)	(0,4)	3,5	(3,0)	0,5	(1,7)	(1,4)	(1,8)	(2,4)	(1,6)
Textiles, clothing and leather goods	(1,2)	(6,4)	5,5	1,3	1,1	1,1	(4,9)	(2,5)	(6,1)	(4,3)	(0,5)	(12,7)	(11,4)	(14,4)	12,9	(2,8)
Wood and paper; publishing and printing	2,6	9,1	6,2	4,4	(2,9)	1,2	1,7	2,8	(1,6)	2,1	(0,8)	(2,5)	(13,7)	(5,1)	(4,0)	(0,0)
Petroleum products, chemicals, rubber and plastic	(4,9)	(1,6)	(2,3)	(2,6)	(8,1)	(1,5)	7,3	(0,0)	1,6	0,4	0,6	3,5	(4,0)	(6,3)	(4,3)	(1,5)
Other non-metal mineral products	(0,9)	(14,9)	(11,8)	(8,5)	(5,3)	(7,6)	(7,8)	5,6	11,9	(0,3)	(0,9)	(8,2)	(22,2)	(16,6)	(12,0)	(6,6)
Metals, metal products, machinery and equipment	0,9	(1,9)	(2,8)	(3,0)	0,2	0,1	0,3	0,4	(2,0)	2,9	1,9	(3,1)	(2,7)	0,6	(4,6)	(0,8)
Electrical machinery and apparatus	(1,6)	2,0	(2,2)	(1,4)	(7,2)	(3,9)	(7,4)	(3,3)	1,5	0,7	(0,2)	0,6	(6,9)	(5,5)	9,1	(1,7)
Radio, TV, instruments, watches and clocks	(8,7)	16,5	3,8	(7,4)	(13,7)	(10,3)	(6,4)	(4,9)	0,6	(2,1)	(8,2)	(5,2)	0,9	(0,4)	(1,8)	(3,2)
Transport equipment	(1,3)	0,4	5,1	3,2	1,6	(2,7)	(7,6)	(2,3)	(1,1)	(0,6)	(2,9)	(0,4)	(8,0)	(3,2)	(2,2)	(1,5)
Furniture and other manufacturing	0,4	(4,2)	2,9	3,3	0,8	1,7	(1,7)	(3,0)	(1,0)	(2,0)	3,0	(13,2)	(8,0)	(8,0)	(2,6)	(2,1)

	1996-1997	1997-1998	1998-1999	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	Average
Mogale City																
Manufacturing	(0,0)	(2,0)	(0,2)	0,4	1,8	2,9	1,0	3,5	3,3	2,4	2,1	(2,1)	(7,2)	(2,7)	(0,1)	0,2
Food, beverages and tobacco	(0,4)	0,7	4,8	(1,4)	0,8	0,7	(8,7)	3,1	5,5	(1,4)	0,2	0,4	(3,0)	(4,3)	(4,2)	(0,5)
Textiles, clothing and leather goods	(0,3)	(8,8)	3,8	4,1	1,2	3,6	(1,0)	(0,2)	(3,5)	(0,2)	2,9	(7,6)	(9,4)	(5,6)	(1,7)	(1,5)
Wood and paper; publishing and printing	2,1	6,7	7,9	7,3	1,5	5,1	6,5	6,5	1,1	5,7	1,1	0,5	(8,7)	(1,5)	4,2	3,1
Petroleum products, chemicals, rubber and plastic	(0,6)	5,0	(0,2)	2,8	(1,7)	3,6	7,8	1,6	5,2	2,8	1,1	0,6	(7,0)	(4,9)	(0,5)	1,0
Other non-metal mineral products	(0,6)	(14,6)	(11,8)	(6,5)	(1,2)	(2,9)	(3,6)	10,1	14,7	2,6	1,5	(6,5)	(22,8)	(1,3)	0,8	(2,8)
Metals, metal products, machinery and equipment	0,7	(2,0)	(3,4)	(1,9)	4,8	4,8	5,5	4,5	0,3	5,3	4,1	(0,4)	(3,2)	0,5	1,0	1,4
Electrical machinery and apparatus	(1,2)	2,3	(2,2)	0,6	(3,3)	0,8	(2,9)	0,9	4,3	3,4	1,7	2,5	(8,2)	(4,2)	7,4	0,1
Radio, TV, instruments, watches and clocks	(9,0)	12,0	4,1	(4,0)	(8,6)	(3,4)	7,4	3,5	3,4	(0,8)	(5,8)	(1,8)	(0,0)	0,9	(1,5)	(0,2)
Transport equipment	(0,4)	2,1	5,6	6,1	4,7	1,0	(2,0)	1,3	1,7	2,0	(1,2)	1,2	(10,0)	(4,0)	(0,0)	0,5
Furniture and other manufacturing	1,0	(3,5)	3,1	5,5	5,2	6,9	2,8	0,9	1,6	0,4	5,0	(11,8)	(9,5)	(7,0)	(0,3)	0,0
Randfontein																
Manufacturing	(3,3)	(4,8)	(3,0)	(2,6)	(0,4)	1,6	(0,3)	3,7	3,9	2,1	1,6	(2,2)	(7,6)	(3,3)	(2,1)	(1,1)
Food, beverages and tobacco	(3,9)	(1,9)	0,5	(4,2)	(1,3)	(0,2)	(8,6)	3,1	5,9	(1,7)	(1,8)	0,3	(4,5)	(4,0)	(5,2)	(1,8)
Textiles, clothing and leather goods	(2,4)	(14,1)	(2,4)	2,5	0,0	3,7	1,0	(0,5)	(2,2)	0,7	4,8	(6,4)	(10,0)	(4,3)	(2,9)	(2,2)
Wood and paper; publishing and printing	(1,5)	3,8	3,8	4,1	(0,8)	3,5	7,9	7,4	1,9	6,9	0,9	0,8	(8,5)	(6,9)	(6,9)	1,1
Petroleum products, chemicals, rubber and plastic	(6,9)	(2,0)	(6,4)	(1,8)	(5,0)	2,4	18,6	8,3	7,4	4,4	2,3	5,9	(5,9)	(3,7)	(0,5)	1,1
Other non-metal mineral products	(3,7)	(16,0)	(14,7)	(9,0)	(3,2)	(3,9)	(2,8)	10,7	15,3	3,6	1,9	(6,9)	(23,4)	(0,2)	6,7	(3,0)
Metals, metal products, machinery and equipment	(2,1)	(3,5)	(6,9)	(4,5)	2,3	3,7	6,6	5,2	1,4	6,4	3,9	(1,7)	(5,1)	0,1	(0,2)	0,4
Electrical machinery and apparatus	(4,4)	0,4	(5,9)	(2,3)	(5,3)	(0,5)	(1,8)	1,6	5,3	4,2	1,7	2,0	(9,5)	(4,6)	7,4	(0,8)
Radio, TV, instruments, watches and clocks	(11,6)	12,3	0,0	(7,6)	(11,3)	(5,9)	4,1	2,1	4,3	0,5	(6,1)	(3,0)	(1,7)	0,1	(1,1)	(1,6)
Transport equipment	(2,9)	2,6	2,5	4,2	0,7	(2,0)	1,2	0,9	3,0	2,8	(1,3)	0,5	(12,3)	(5,0)	(0,1)	(0,3)
Furniture and other manufacturing	(2,6)	(5,0)	(0,9)	2,2	2,8	6,3	2,5	0,7	2,5	1,0	5,7	(12,3)	(11,0)	(8,0)	(0,8)	(1,1)
Westonaria																
Manufacturing	5,9	2,9	4,6	4,3	4,6	3,9	0,9	3,9	4,1	1,4	1,4	(2,9)	(8,4)	(3,9)	(1,4)	1,4
Food, beverages and tobacco	5,4	9,0	12,4	4,1	3,6	2,3	(8,7)	2,0	4,8	(2,7)	(1,1)	0,8	(0,7)	0,1	0,2	2,1
Textiles, clothing and leather goods	5,3	0,4	9,6	7,4	6,3	7,4	(0,7)	(0,9)	(3,7)	(2,4)	1,4	(9,2)	(8,9)	1,8	(13,7)	(0,0)
Wood and paper; publishing and printing	9,4	19,5	13,3	12,1	3,9	8,1	6,8	6,5	0,5	3,4	0,1	(0,5)	(14,6)	2,0	(4,5)	4,4
Petroleum products, chemicals, rubber and plastic	3,8	12,7	4,9	7,2	1,2	5,7	16,1	6,3	6,5	2,9	1,1	5,5	(2,4)	(3,0)	0,3	4,6
Other non-metal mineral products	5,3	(7,6)	(5,7)	(1,7)	1,3	(1,8)	(2,8)	9,2	14,8	0,9	(0,3)	(6,2)	(22,1)	(16,7)	(11,7)	(3,0)
Metals, metal products, machinery and equipment	7,0	7,2	5,1	3,7	7,1	6,3	5,3	3,7	0,6	4,8	4,2	(0,1)	(1,7)	(0,5)	5,4	3,9
Electrical machinery and apparatus	4,6	10,9	4,9	6,1	(0,6)	2,3	(2,8)	0,0	3,7	2,2	0,8	2,8	(6,0)	(2,6)	7,4	2,3
Radio, TV, instruments, watches and clocks	(3,3)	23,9	11,6	0,5	(6,8)	(3,1)	3,4	0,7	2,8	(1,4)	(6,9)	(2,2)	2,1	1,5	1,3	1,6
Transport equipment	5,1	9,8	13,0	11,5	8,3	3,2	(2,5)	0,8	1,1	0,9	(2,0)	1,7	(7,4)	(3,3)	1,1	2,7
Furniture and other manufacturing	6,9	3,5	10,3	11,3	8,0	7,4	5,2	1,4	1,4	(0,3)	3,4	(11,1)	(6,7)	(5,5)	0,9	2,4

Source: Demacon Ex. Quantec, 2013

Figure 7.12: Manufacturing Sectoral Labour Force Growth Performance – Average Annual Growth, 1996-2011

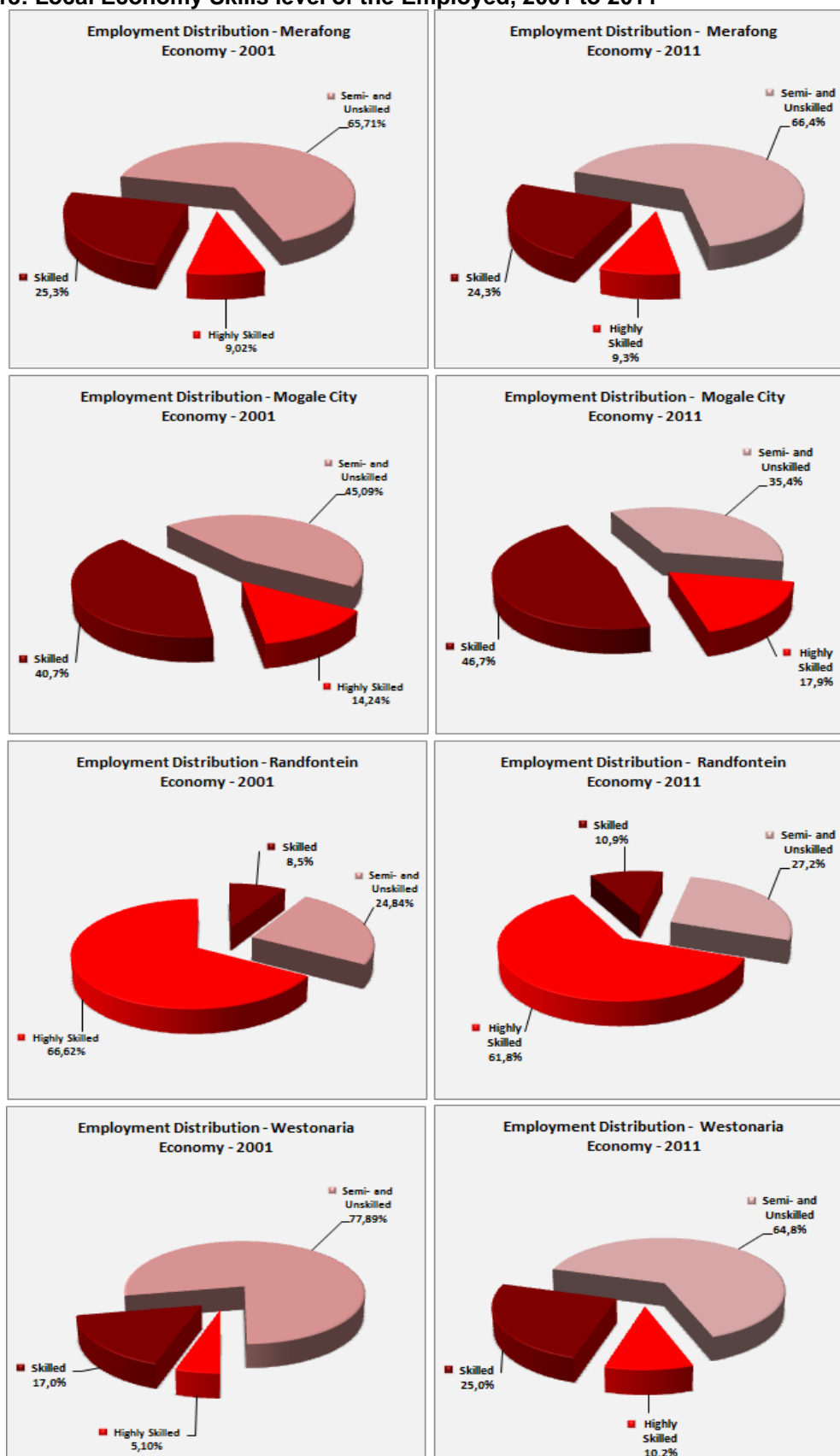


Source: Demacon Ex. Quantec, 2013

7.5 SKILLS BASE AND GROWTH TRENDS

The employed market segment also reflected their various skill levels – the subsequent sets of figures reflect these skill segments and their underlying growth trends.

Figure 7.13: Local Economy Skills level of the Employed, 2001 to 2011



Source: Demacon Ex. Quantec, 2013

Figure 7.14: Local Economy Skills Level Growth Trends, 1996 to 2011



Source: Demacon Ex. Quantec, 2013

Findings: (Figures 7.13 and 7.14)

- ✓ **West Rand District:** It is noted that the largest segment of the employed represents semi- and unskilled employees (48.6%) followed by a large segment of skilled employees (37.0%), and a small segment of highly skilled employees (14.4%). The various skill categories reflected similar growth patterns. The average annual growth rates obtained over this time period by the three skills categories amounted to 2.9% for the highly skilled, 1.8% for the skilled segment and -2.5% for the semi and unskilled segment.
- ✓ **Merafong City:** It is noted that the largest segment of the employed represents semi- and unskilled employees (66.4%) followed by a large segment of skilled employees (24.3%), and a small segment of highly skilled employees (9.3%). The various skill categories reflected similar growth patterns. The average annual growth rates obtained over this time period by the three skills categories amounted to 1.5% for the highly skilled, 0.1% for the skilled segment and -1.3% for the semi and unskilled segment.
- ✓ **Mogale City:** It is noted that the largest segment of the employed represents skilled employees (46.7%) followed by a large segment of semi- and unskilled employees (35.4%), and a small segment of highly skilled employees (17.9%). The various skill categories reflected similar growth patterns. The average annual growth rates obtained over this time period by the three skills categories amounted to 3.9% for the highly skilled, 3.4% for the skilled segment and -0.6% for the semi and unskilled segment.
- ✓ **Randfontein:** It is noted that the largest segment of the employed represents highly skilled employees (61.8%) followed by a large segment of semi- and unskilled employees (27.2%), and a small segment of skilled employees (10.9%). The various skill categories reflected similar growth patterns. The average annual growth rates obtained over this time period by the three skills categories amounted to 0.1% for the highly skilled, 3.1% for the skilled segment and 2.0% for the semi and unskilled segment.
- ✓ **Westonaria:** It is noted that the largest segment of the employed represents semi- and unskilled employees (64.8%) followed by a large segment of skilled employees (25.0%), and a small segment of highly skilled employees (10.2%). The various skill categories reflected similar growth patterns. The average annual growth rates obtained over this time period by the three skills categories amounted to 0.5% for the highly skilled, -2.4% for the skilled segment and -6.8% for the semi and unskilled segment.

7.6 SECTORAL GVA AND EMPLOYMENT GROWTH TRENDS

Subsequent table merely indicates the top five growth sectors related to GVA and total employment for the district and local economies.

Table 7.4: Dominant GVA and Employment Growth Sectors, average annual growth between 1996 and 2011

Dominant GVA Growth Sectors	Growth (%)	Dominant Employment Growth Sectors	Growth (%)
West Rand District Municipality			
Finance and Business Services	19.2%	Mining	21.5%
General Government Services	17.0%	Trade	18.6%
Manufacturing	16.0%	Finance and Business Services	15.0%
Trade	13.9%	Community, Social & Personal	13.7%
Mining	13.3%	General Government	11.7%
Merafong City			
Mining	29.8%	Mining	52.5%
Finance and Business Services	15.8%	Trade	14.2%
Trade	13.3%	Community, Social & Personal	10.9%
General Government Services	12.2%	General Government	7.8%
Community, Social & Personal	11.8%	Finance and Business Services	5.7%
Mogale City			
Finance and Business Services	22.0%	Trade	22.7%
Manufacturing	19.8%	Finance and Business Services	22.4%
General Government Services	18.0%	Community, Social & Personal	14.5%
Trade	16.0%	General Government	13.1%
Transport and Communication	9.4%	Manufacturing	12.9%
Randfontein			
Manufacturing	21.6%	Trade	20.3%
General Government Services	21.6%	Finance and Business Services	17.3%
Finance and Business Services	21.4%	Community, Social & Personal	16.7%
Trade	11.8%	General Government	15.8%
Transport and Communication	8.2%	Manufacturing	14.6%
Westonaria			
Mining	53.4%	Mining	47.1%
General Government Services	13.2%	Community, Social & Personal	13.7%
Manufacturing	8.1%	Trade	10.7%
Trade	7.0%	General Government	9.9%
Finance and Business Services	7.0%	Finance and Business Services	5.9%

Source: Demacon, 2013

Table 7.5: Dominant Manufacturing GVA and Employment Growth Sectors, average annual growth between 1996 and 2011

Dominant GVA Growth Sectors	Growth (%)	Dominant Employment Growth Sectors	Growth (%)
West Rand District Municipality			
Electrical machinery and apparatus	4.5%	Wood and paper; publishing and printing	2.6%
Petroleum products, chemicals, rubber and plastic	4.5%	Metals, metal products, machinery and equipment	1.3%
Transport equipment	4.4%	Petroleum products, chemicals, rubber and plastic	1.1%
Metals, metal products, machinery and equipment	3.6%	Transport equipment	0.5%
Radio, TV, instruments, watches and clocks	3.5%	Electrical machinery and apparatus	0.0%
Merafong City Local Economy			
Petroleum products, chemicals, rubber and plastic	5.6%	Petroleum products, chemicals, rubber and plastic	4.6%
Electrical machinery and apparatus	5.6%	Wood and paper; publishing and printing	4.4%
Transport equipment	4.9%	Metals, metal products, machinery and equipment	3.9%
Radio, TV, instruments, watches and clocks	4.3%	Transport equipment	2.7%
Metals, metal products, machinery and equipment	4.3%	Furniture and other manufacturing	2.4%
Mogale City Local Economy			
Electrical machinery and apparatus	4.5%	Wood and paper; publishing and printing	3.1%
Transport equipment	4.5%	Metals, metal products, machinery and equipment	1.4%
Metals, metal products, machinery and equipment	4.4%	Petroleum products, chemicals, rubber and plastic	1.0%
Radio, TV, instruments, watches and clocks	3.8%	Transport equipment	0.5%
Textiles, clothing and leather goods	3.6%	Electrical machinery and apparatus	0.1%

Source: Demacon, 2013

Dominant GVA Growth Sectors	Growth (%)	Dominant Employment Growth Sectors	Growth (%)
Randfontein Local Economy			
Petroleum products, chemicals, rubber and plastic	4.0%	Furniture and other manufacturing	-1.6%
Transport equipment	3.9%	Transport equipment	-2.1%
Electrical machinery and apparatus	3.5%	Radio, TV, instruments, watches and clocks	-2.9%
Radio, TV, instruments, watches and clocks	2.5%	Electrical machinery and apparatus	-3.0%
Metals, metal products, machinery and equipment	2.5%	Metals, metal products, machinery and equipment	-3.2%
Westonaria Local Economy			
Petroleum products, chemicals, rubber and plastic	7.4%	Petroleum products, chemicals, rubber and plastic	4.6%
Electrical machinery and apparatus	6.8%	Wood and paper; publishing and printing	4.4%
Transport equipment	6.3%	Metals, metal products, machinery and equipment	3.9%
Metals, metal products, machinery and equipment	5.7%	Transport equipment	2.7%
Radio, TV, instruments, watches and clocks	5.5%	Furniture and other manufacturing	2.4%

Source: Demacon, 2013

7.7 SYNTHESIS

This chapter provided an assessment of the district and local economies in the context of the provincial and national economies. Table 5.30 provides a summary of the economic profile of the West Rand District Municipality and the related four local municipalities.

Table 5.30: Economic Profile

Economic Characteristic	Variable				
	West Rand District Economy	Merafong City Local Economy	Mogale City Local Economy	Randfontein Local Economy	Westonaria Local Economy
Employment contribution to Gauteng province / West Rand District Economy 2011	✓ 7.2%	✓ 30.1%	✓ 44.7%	✓ 15.6%	✓ 9.5%
Local Employment Pillars 2011	✓ Mining – 21.5% ✓ Trade – 18.6% ✓ Finance and Business Services – 15.0% ✓ Community, Social and Personal Services – 13.7% ✓ General Government Services – 11.7%	✓ Mining – 52.5% ✓ Trade – 14.2% ✓ Community, Social & Personal Services – 10.9% ✓ General Government Services – 7.8% ✓ Finance and Business Services – 5.7%	✓ Trade – 22.7% ✓ Finance and Business Services – 22.4% ✓ Community, Social & Personal Services – 14.5% ✓ General Government Services – 13.1% ✓ Manufacturing – 12.9%	✓ Trade – 20.3% ✓ Finance and Business Services – 17.3% ✓ Community, Social & Personal Services – 16.7% ✓ General Government Services – 15.8% ✓ Manufacturing – 14.6%	✓ Mining – 47.1% ✓ Community, Social & Personal Services – 13.7% ✓ Trade – 10.7% ✓ General Government Services – 9.9% ✓ Finance and Business Services – 5.9%
Employment Growth - Average annual growth 1996 to 2011	✓ 0.2% ✓ Formal employment – -0.5% ✓ Informal employment 3.0%	✓ -0.8% ✓ Formal employment – -0.8% ✓ Informal employment 0.7%	✓ 2.1% ✓ Formal employment – 1.8% ✓ Informal employment 4.3%	✓ 0.5% ✓ Formal employment – 0.1% ✓ Informal employment 2.9%	✓ -5.1% ✓ Formal employment – -5.5% ✓ Informal employment 2.7%
Formal Employment top growth sectors – 1996 to 2011 average annual growth	✓ Finance & business serv – 6.1% ✓ Utilities – 5.5% ✓ General government – 2.9% ✓ Trade – 2.9% ✓ Community, social and personal serv – 2.5%	✓ Utilities – 3.7% ✓ Finance & business serv – 2.3% ✓ General government – 2.2% ✓ Community, social and personal serv – 1.9% ✓ Trade – 1.0%	✓ Utilities – 7.7% ✓ Finance & business serv – 7.2% ✓ Trade – 4.5% ✓ General government – 2.5% ✓ Community, social and personal serv – 2.1%	✓ Finance & business serv – 5.7% ✓ General government – 3.4% ✓ Community, social and personal serv – 2.9% ✓ Trade – 2.2% ✓ Transport & com – 0.9%	✓ General government – 7.8% ✓ Community, social and personal serv – 7.1% ✓ Finance & business serv – 5.3% ✓ Utilities – 2.6% ✓ Manufacturing – 1.4%
Skills Profile of Formally Employed 2011	✓ Highly skilled labour – 14.4% ✓ Skilled labour – 37.0% ✓ Semi and unskilled labour – 48.6%	✓ Highly skilled labour – 9.3% ✓ Skilled labour – 24.3% ✓ Semi and unskilled labour – 66.4%	✓ Highly skilled labour – 17.9% ✓ Skilled labour – 46.7% ✓ Semi and unskilled labour – 35.4%	✓ Highly skilled labour – 61.8% ✓ Skilled labour – 10.9% ✓ Semi and unskilled labour – 27.2%	✓ Highly skilled labour – 10.2% ✓ Skilled labour – 25.0% ✓ Semi and unskilled labour – 64.5%
Skills growth trends – 1996 to 2011	✓ Highly skilled average annual growth – 2.9% ✓ Skilled average annual growth – 1.8% ✓ Semi and unskilled	✓ Highly skilled average annual growth – 1.5% ✓ Skilled average annual growth – 0.1% ✓ Semi and unskilled	✓ Highly skilled average annual growth – 3.9% ✓ Skilled average annual growth – 13.4%	✓ Highly skilled average annual growth – 0.1% ✓ Skilled average annual growth – 3.1% ✓ Semi and unskilled	✓ Highly skilled average annual growth – 0.5% ✓ Skilled average annual growth – -2.4%

Economic Characteristic	Variable						
	average annual growth – -2.5%	average annual growth – -1.3%	✓	Semi and unskilled average annual growth – -0.6%	average annual growth – 2.0%	✓	Semi and unskilled average annual growth – -6.8%
Basic Sector Multiplier	✓ 9.0	✓ 3.2	✓	16.1	✓ 9.3	✓	2.5

Source: Demacon, 2013

CHAPTER 8: MINING RESOURCES AND OPERATIONS ON THE WEST RAND

8.1 INTRODUCTION

This chapter focus on the mining operations within the West Rand District Municipal area. The West Rand has a strong historic mining character, with the mining sector still one of the largest employers within the West Rand. Most of the industrial nodes within the West Rand are located along the mining belt / in close proximity to the mining activity. The mining operations within the West Rand therefore has a strong influence on the industrial activities within the West Rand.

The mining operation are analysed on a macro, meso and micro level. On the micro level, industrial operations within the West Rand are highlighted and the largest mining house in the West rand are briefly discussed.

MACRO LEVEL

8.2 NATIONAL MINING OPERATIONS

South Africa is a world leader in mining. The country is famous for its abundance of mineral resources, accounting for a significant proportion of world production and reserves, and South African mining companies are key players in the global industry.

➤ MINERAL WEALTH

South Africa's total reserves remain some of the world's most valuable, with an estimated worth of R20.3-trillion (\$2.5-trillion). Overall, the country is estimated to have the world's fifth-largest mining sector in terms of GDP value. It has the world's largest reserves of manganese and platinum group metals (PGMs), according to the US Geological Survey, and among the largest reserves of gold, diamonds, chromite ore and vanadium.

With South Africa's economy built on gold and diamond mining, the sector is an important foreign exchange earner, with gold accounting for more than one-third of exports. In 2009, the country's diamond industry was the fourth largest in the world. South Africa is also a major producer of coal, manganese and chrome. There is considerable potential for the discovery of other world-class deposits in areas yet to be exhaustively explored. South Africa's prolific mineral reserves include precious metals and minerals, energy minerals, non-ferrous metals and minerals, ferrous minerals, and industrial minerals.

Given its history and mineral wealth, it is no surprise that the country's mining companies are key players in the global industry. Its strengths include a high level of technical and production expertise, and comprehensive research and development activities. World-class primary processing facilities work with carbon steel, stainless steel, aluminium, gold and platinum. South Africa is also a world leader of new technologies, such as a ground-breaking process that converts low-grade superfine iron ore into high- quality iron units.

➤ CONTRIBUTION TO THE ECONOMY

With the growth of South Africa's secondary and tertiary industries, the relative contribution of mining to South Africa's gross domestic product (GDP) has declined over the past 10 to 20 years. Nonetheless, the industry is continually adapting to changing local and international world conditions, and remains a cornerstone of the economy, making a significant contribution to economic activity, job creation and foreign exchange earnings. Mining and its related industries are critical to South Africa's socio-economic development.

The sector accounts for roughly one-third of the market capitalisation of the JSE, and continues to act as a magnet for foreign investment in the country. Mining, according to the Chamber of Mines:

- ✓ Creates one million jobs (500 000 direct and 500 000 indirect).
- ✓ Accounts for about 18% of GDP (8.6% direct, 10% indirect and induced).
- ✓ Is a critical earner of foreign exchange at more than 50%.
- ✓ Accounts for 20% of investment (12% direct).
- ✓ Attracts significant foreign savings (R1.9-trillion or 43% of value of JSE).
- ✓ Accounts for 13.2% of corporate tax receipts (R17-billion in 2010) and R6-billion in royalties.
- ✓ Accounts for R441-billion in expenditures, R407-billion spent locally.
- ✓ Accounts for R78-billion spent in wages and salaries.
- ✓ Accounts for 50% of volume of Transnet's rail and ports.
- ✓ Accounts for 94% of electricity generation via coal power plants.
- ✓ Takes 15% of electricity demand.
- ✓ About 37% of the country's liquid fuels via coal.

➤ **BENEFICIATION AND OTHER POLICIES**

In the 2011/12 Fraser Institute Survey, South Africa was ranked 54th out of 93 countries and provinces (from 67th out of 79 the year before). The Fraser Institute, a leading Canadian think tank, measures the policy attractiveness of mining destinations by polling mining company executives. Lucrative opportunities exist for downstream processing and adding value locally to iron, carbon steel, stainless steel, aluminium, PGMs and gold. A wide range of materials is available for jewellery, other than gold, platinum and diamonds; there is also tiger's eye, and many other semiprecious stones.

For this purpose, the government has developed a minerals beneficiation strategy as a key area for potential growth. It is planned to transform the industry from being largely resource-based to knowledge-based. Downstream activities are already well-developed, and downstream products from the industry used locally include cement, steel, liquid fuels, electricity, polymers and plastics, with an estimated total sales value of R200- billion (\$24.6-billion).

South Africa's beneficiation strategy compliments other government programmes, and the mining industry value chain has been prioritised as an economic growth node in the New Growth Path, which highlights a path for the industry out of its depression until 2020.

The Mining Industry Growth Development and Employment Task Team (Migdet) was established at the height of the global financial crisis in 2008, with stakeholders from the government, industry, and labour. They committed to achieve two critical outcomes:

- ✓ To help the industry manage the negative effects of the global economic crisis and to save jobs; and
- ✓ To position the industry for growth and transformation in the medium to long term.

MESO LEVEL

8.3 MINING OPERATIONS WITHIN GAUTENG

Historically, Gauteng has been built on the Gold industry. Mines, mining houses and the related industries thrive in this province. There are approximately 159 mines – of which 44 are gold mines - in Gauteng that together produce a quarter of South Africa's total mineral production. Most of the mining is for gold - 80% of Gauteng's output.

Research hub

Gauteng is at the heart of research for the mining industry and the training of qualified staff. One of the leaders in this field is Mintek. An autonomous body based in Randburg, this research and development unit receives about 30% of the annual budget from the National Department of Mineral Resources. The balance comes from joint ventures with the private sector, or is earned in research and development income, the sale of services and products and from technology licensing agreements. Mintek has a permanent staff of 780 and offers everything from preliminary investigations through piloting, to full-scale feasibility studies. It has internationally accredited analytical laboratory and mineralogical services.

A joint initiative between Mintek, the National Department of Science and Technology (DST) and AngloGold Ashanti has resulted in the creation of a plant that manufactures gold catalysts. Project AuTEK began in the year 2000. Engineering News reported in 2012 that the project's scientists have found a way of getting gold catalysts to play a role in improving fuel cell efficiency by oxidising carbon monoxide. Catalysts can be used anywhere that pollution needs to be removed.

The University of the Witwatersrand (Wits) School of Mining has two centres that are part-funded by several mining houses and equipment suppliers, such as Xstrata, AngloGold Ashanti, Lonmin, BHP Billiton, Gold Fields, De Beers, Anglo Platinum, African Rainbow Minerals, Joy Global Africa and Sandvik. The Centre for Sustainability in Mining and Industry offers comprehensive courses in environmental impact assessment, sustainable development, health and safety legislation and community engagement.

The Centre for Mechanised Mining Systems (MineMech) aims to be a centre of research for improved mechanised mining and the introduction of automated systems, and to provide skilled engineers in an industry that has a skills shortage. Students studying for a Bachelor of Engineering degree through Pretoria University's Department of Mining Engineering are obliged to participate in a community development project in the course of their studies. The University of Johannesburg offers a full-contact mine-surveying qualification, while the University of South Africa (Unisa) offers three national diplomas: in mine engineering, mine surveying and surface mining. Gauteng's two universities of technology, Vaal and Tshwane, both offer courses relevant to the mining industry through their engineering faculties.

➤ GOLD

The biggest gold mining companies and their Gauteng operations are:

AngloGold Ashanti

The West Wits complex near Carletonville straddles the border between the Gauteng and North West provinces and comprises three mines: Mponeng (which has its own processing plant), Savuka and Tau Tona (which share a plant). West Wits produced about 800 000 ounces of gold in 2011. AngloGold Ashanti has 21 operations on four continents and controls a resource base of 71.4 million ounces. It has seven mining operations in South Africa.

Gold Fields

Gold Fields operates Driefontein (in the North West Province near Carletonville), Kloof and South Deep (both sites near Westonaria). Deep digging to extend Driefontein's operations is underway and South Deep is undergoing a revamp to push production levels up to 800 000 ounces per year. The project has a budget to 2014 of R8.4-billion. The tailings joint venture with Gold One could see Gold Fields gain access to 4.5 million ounces of gold. Gold Fields has nine mines in South Africa and three other countries.

DRD Gold

DRD Gold owns Crown, which is the world's largest gold surface-tailings retreatment facility, and Blyvooruitzicht. In May 2012, the Competition Commission approved the sale of the troubled Blyvooruitzicht mine to Village Main.

Harmony

At the Doornkop South Reef project, 5.9 million ounces are estimated to be on-site. It is being developed at a cost of R1.7-billion. Elandsrand, on the border with North West Province, is a new operation on an old site which, when fully developed, will have an estimated output of 450 000 ounces per year. Harmony's assets include mines in Papua New Guinea and Australia. The company produced 1.5 million ounces in 2011.

Gold One International

This junior mining company officially opened its Modder East mine in May 2010, the first new gold mine on the East Rand in nearly three decades. The project began in 2006 and the first ounce of gold was mined in July 2009. Gold One believes its joint venture with Gold Fields will enable it to gain access to 4.5 million ounces of gold among the tailings that it owns on the West Rand.

➤ DIAMONDS

The owners of the Cullinan mine north of Pretoria, Petra Diamonds, aim to push production at this famous mine up to 2.6 million carats per year by 2019. The mine's annual production is about 900 000 carats. Although it was the area around Kimberley that first gave South Africa its reputation for high-quality diamonds, it was from Cullinan that the greatest stones originated. The enormous 3 106-carat Cullinan Diamond was cut into several famous smaller diamonds, one of which, the 530-carat Great Star of Africa, was presented to Britain's King Edward VII on his 66th birthday.

➤ OTHER MINERALS

The southern parts of Gauteng have historically produced a lot of coal used to fire power stations. These power stations have since been decommissioned. However, Heidelberg is still a source of coal, where a BEE operation, Anglo Inyosi Coal, has a project. Platinum is also mined at Elandsfontein, while Gauteng has many quarries supplying the construction and mining industries. Afrimat, a JSE-listed construction-materials supplier, made its first foray into the industrial minerals sector with the purchase in 2010 of the Glen Douglas dolomite mine from Exxaro. Afrimat has several quarries around the country (including the Blue Platinum quarry in Lanseria, purchased in 2009) but the Douglas mine output of 1.2 million tons will make it the largest in the company. Afrimat believes that the western, south-western and southern parts of Gauteng are developing rapidly and it wants to position itself to boost profitability and growth.

➤ REFINERIES

The Zincor electrolytic refinery near Springs was shut down by Exxaro Resources in December 2011. It was the only zinc refinery in the country. The company is also due to sell its 22% share in a zinc smelter in China. Rand Refinery in Germiston is South Africa's only gold refinery. Rand Refinery Limited (RRL), of which AngloGold Ashanti is the majority shareholder, is spending R80-million on four projects designed to expand capacity, develop new products and improve safety. A new copper-leaching plant (to extract gold from copper base metals) and major upgrades to the arc furnace and ventilation systems are among the concrete steps that will deliver increased capacity. Research is also being done into improving the efficiency of electrolytic refining in extracting platinum group metals. BHP Billiton has a metal alloys plant in Vereeniging. Exxaro company FerroAlloys produces gas-atomised ferrosilicon at its plant in Pretoria.

MICRO LEVEL

8.4 MINING OPERATIONS WITHIN THE WEST RAND

One of the most important aquifers in South Africa is the dolomitic aquifer of the West Rand and Far West Rand area. Due to the anthropogenic influences from both mining and industrial sources, this aquifer is increasingly under threat of becoming a vast unexploitable reserve of no use as a groundwater resource. The gold-bearing reefs contain an array of minerals such as native gold, uranium oxides, traces of platinum and an array of sulphide minerals with pyrite being the most abundant. Most of the mines have produced uranium as well as gold.

Gold mining is the principle economic activity in the West Rand and Far West Rand regions. This industry is the basis of the economy and socio-economic development of the region. Gold mining on the West Wits Line contains of the biggest and richest mines in the entire Witwatersrand basin. Unfortunately, associated with all the economic and social benefits arising from gold mining there are several negative impacts on the environment.

There are seventeen mines in this area, each with a different life-span and impact on the groundwater resources of the area.

Table 8.1: Mines within the West Rand

West Rand Mine Lease Areas	West Wits Line Mine Lease Areas
1. East Champ D'Or	8. East Driefontein
2. Luipaardsvlei	9. West Driefontein
3. West Rand Cons (First Wesgold)	10. Blyvooruitzicht
4. Randfontein Estates (REGM)	11. Doornfontein
5. Western Areas N and S (WAGM)	12. Deelkraal
6. REGM Cooke	13. Elandsrandt
7. REGM Doornkop	14. Western Deep Levels
	15. Libanon (including Venterspost)
	16. Kloof
	17. Leeudoorn

Following is some additional information regarding the mines located within the West Rand area.

8.4.1 EAST CHAMP D'OR MINE

A Gold-Uranium project owned by West Wits

The East Champ d'Or lease was historically mined for gold and uranium, with particular mining activities on the Bird Reef. A recorded production total of 1.33 million ounces of gold and 1.22 million pounds of uranium were achieved between the late 1890's to 1960's with minor gold mining activities in the 2003. The mine covers a surface area of approx 4.7km² and is situated approximately 24km west of Johannesburg CBD. The mine is located on the western side of the Saxon/Witpoortjie fault separating the East Champ D'Or Mine, Luipaardsvlei, West Rand Consolidated Mine and the West Wits Mine from the DRD Mine and Rand Leases Mine

8.4.2 LUIPAARDSVLEI

A Gold-Uranium project owned by West Wits

The Luipaardsvlei Lease is located approx 27km west of Johannesburg CBD and is adjacent to the east of the East Champ D'Or Lease and to the west with the West Rand Consolidated Lease.

8.4.3 REGM COOKE (SHART 1&2)

A Gold-Uranium Mine owned by Gold One

The Cooke 1, 2 and 3 gold mines, which are situated approximately 35 kilometres south-west of Johannesburg, are part of Randfontein. The mines are serviced by an excellent network of mining and civil infrastructure, with electrical power and water readily available. Tailings and waste disposal sites have been identified and are currently in use. The Cooke 3 mine is a historical producer of gold and uranium, with the uranium section closing down in the late 1980's due to the poor state of the uranium market.

8.4.4 REGM DOORKOP

Gold Mine owned by Harmony

Some 30km west of Johannesburg, Doornkop is a single-shaft operation mining the Kimberley and South Reefs to a depth of just under 2 000 metres. Doornkop uses both mechanised bord-and-pillar and narrow-reef conventional mining, with ore processed at its carbon-in-pulp plant. Production at the higher-grade South Reef project is ramping up to scheduled full production in FY16.

8.4.5 DRIEFONTEIN SHAFT 1

A Gold Concentrator owned by Gold Fields

Driefontein operates three gold processing plants. A centralised elution and carbon treatment facility, capable of processing carbon from all three of the Driefontein plants, was installed in August 2001. The benefits of this centralisation are better recovery rates, giving reduced dissolved gold losses and operating cost, as well as improved security. Gold bullion produced is dispatched to the Rand Refinery to further process it to a saleable quality of 99,9% fineness.

The 1 Gold Plant was commissioned as a three stage crushing, two stage milling, filtration and zinc precipitation operation. The Plant was initially designed and installed to treat 100 kt of ore per month, but this has been gradually increased to a monthly throughput of 240 kt. The mineral processing technology in the Plant is based on SAG milling circuit followed by cyanide leaching. The SAG milling circuit was commissioned in September 2003 and replaced the conventional crushing and milling circuit while the filtration and zinc precipitation processes were replaced by the state of the art carbon in pulp (CIP) plant.

8.4.6 DEELKRAAL

A Gold Mine owned by Harmony

Part of the Kususaletu (formerly Elandsrand) mining tenement.

8.4.7 KLOOF SHAFT 1

A Gold Mine owned by Gold Fields

The Kloof operation is engaged in underground and rock dump mining. A significant challenge facing the Kloof operation is seismicity and to a lesser extent flammable gas. To reduce the impact of seismicity, Kloof practices the closely spaced dip pillar mining method and has also adopted a revised slope support standard in all areas with friable hang-wall and in areas that have the Westonaria Formation Lava hang-wall.

The predominant mining layout at Kloof is breast stopping with dip pillars, with a minor contribution from scattered mining. Breast stopping with dip pillars has been selected for the below infrastructure projects. Mining spans and pillar widths depend on the location, the reef being mined and the depth of working.

Early detection methods and increased ventilation of the shafts are being used to minimize the risk of incidents caused by flammable gas. Extensive cooling infrastructure is required to maintain comfortable conditions for workers due to the depth of its operations.

8.4.8 EMERALD GOLD

A Gold project owned by West Wits

The Emerald Gold Project is considered attractive for exploitation because of its grade, shallow depth and close proximity to the processing infrastructure. The Emerald Gold Project is located on the West Rand Consolidated Lease over an approximate 2km section of the Kimberley Reef.

West Wits announced its maiden Ore Reserve estimate at the Emerald Gold Project on 18th October 2009. The initial Ore Reserve estimate is 59,000 ounces of gold at 1.7 g/t down to 55m, which is the maximum planned depth of the pits. The project consists of three pits being developed.

8.4.9 KUSASALETHU

A Gold Mine owned by Harmony

Kusasaletu mine, on the Gauteng/North West border, comprises twin vertical and twin sub-vertical shaft systems. Mining is via conventional methods in a sequential grid layout. Ore mined is treated at the Kusasaletu plant.

8.4.10 MPONENG SOUTH SHAFT

A Gold Mine owned by AngloGold Ashanti

Mponeng was the world's deepest until TauTona surpassed it in 2008. The South shaft deepening project commenced in 1996 and as a result Mponeng mines the Ventersdorp Contact Reef (VCR) to the 120 level, which is some 3.4km below datum. Mponeng mines on average at deeper than 2.7km below the surface. The VCR reef that Mponeng mines dips at 22°, and has an average channel width of 78cm.

The deepest operating stope is at a depth of 3.37km below surface. The grade at this operation varies considerably, therefore a sequential grid mining method is used which allows for selective mining and increased flexibility in dealing with changes in grade ahead of the stope. The mine utilises a twin-shaft system housing two vertical shafts and two service shafts.

8.4.11 TAUTONA

A Gold Mine owned by AngloGold Ashanti

TauTona lies on the so-called West Wits Line, just south of Carletonville in the North West Province, about 70km southwest of Johannesburg. Mining at TauTona takes place at depths ranging from 2,000m to 3,640m. The mine has a three-shaft system and is in the process of converting from longwall mining to scattered grid mining.

8.4.12 SAVUKA

A Gold Mine owned by AngloGold Ashanti

Savuka is found alongside Tautona and Mponeng.

8.4.13 BLYVOOR SHAFT 1

A Gold Mine owned by DRD Gold

The mine has both underground mining and surface tailings retreatment operations and a carbon-in-leach gold plant with the capacity to treat some 400 000tpm.

Blyvoor has two main gold-bearing horizons: the Carbon Leader Reef (CLR), which is one of the principal orebodies of the Carletonville goldfield; and the Main Reef, which is some 75m above the CLR horizon. The reefs vary in thickness from 5cm to 20cm. Recently there has been a shift in focus to mining the Main Reef for greater flexibility. Although not as consistent in grade, the Main Reef is less seismically active, offers greater potential for higher volumes and

maintained real cost, and can be accessed through development of the mine's existing infrastructure.

Ore is mined from three underground shaft systems using the traditional narrow-reef, drill, blast and scape methods. Gold recovered from surface tailings retreatment accounts for approximately 27% of Blyvoor's total production. While Blyvoor's life of mine is projected until 2030, its resource is widespread and production could extend for many years beyond this, depending on gold price and exchange rate performance.

8.4.14 EZULWINI

A Gold-Uranium Mine owned by First Uranium

The Ezulwini Mine is an underground mine constructed in the 1960s with historical production of approximately 14 million pounds of uranium and 12 million ounces of gold until it was put on care-and maintenance in 2001, which was its status when the Corporation acquired it in 2006.

The mine has two separate tabular ore bodies about 400 metres apart. The Upper Elsburg ore body, where most of the mining has been done to date, is a gold only deposit. The Middle Elsburg ore body is a gold and uranium deposit and is relatively unexploited. The Ezulwini Mine forms part of the Ezulwini mining right, which includes certain surface and underground assets, acquired by the Ezulwini Mining Company (Proprietary) Limited (EMC). On April 22, 2010, the Ezulwini mining right, formerly held by Simmers, was registered in the name of EMC.

The establishment of the Ezulwini Mine, which was substantially completed during Q4 FY 2009, included the rehabilitation and re-engineering of the main mine shaft through the installation of a floating steel tower and the construction of a 200,000 tonne per month gold plant and a 100,000 tonne per month uranium plant. With the capital intensive projects substantially completed, First Uranium turned its focus at the start of FY 2010 on the underground mine development to accelerate the amount of ore being fed to the gold and uranium plants.

8.4.15 SOUTH DEEP GOLD

A Gold Mine owned by Gold Fields

South Deep Gold Mine is an intermediate to deep level gold mine comprising two shaft systems that mine various auriferous conglomerates from open ground and pillars that occur at depths between 1,575 m and 3,500 m below surface. The shaft systems comprise the older South Shaft complex with its main shaft and two sub vertical shafts, and the newer flagship complex, known as Twin Shafts. Ore is processed at a central metallurgical plant. The mining rights comprise a total of 3,566 ha.

The VCR will be mined by a low profile mechanised mining method, whereas the Upper Elsburgs will be mined by a variety of mining methods ranging from mechanised drift-and-fill or modified drift-and-bench to longhole stoping. Ore is drilled with trackless twin boom, blasted and taken by Load-Haul- Dumpers (LHDs) to internal ore passes for transport to hoisting shafts.

At South Deep, the main target horizon is predominantly in the Upper Elsburg Massives zone. In order to extract this ground at depths, which range from 2,500 to 3,500 m below surface (currently on average at a depth of 2,693 m below surface), the in situ rock stresses need to be reduced from 80 mpa to between 30 and 40 mpa. This enables the mining of large excavations at close proximity.

To achieve this, the main target horizon needs to be de-stressed by mining a 2 m slice through the package in an optimal position to ensure a de-stressed window of 50 to 60 m above or below the associated stope. Historically, this was done through conventional mining techniques, but due to low face advances achieved, de-stress mining is now also done using

mechanised mining techniques. Backfill is an integral part of the mining method, and is essential to promote both local and regional stability.

8.5 MINING HOUSES IN THE WEST RAND

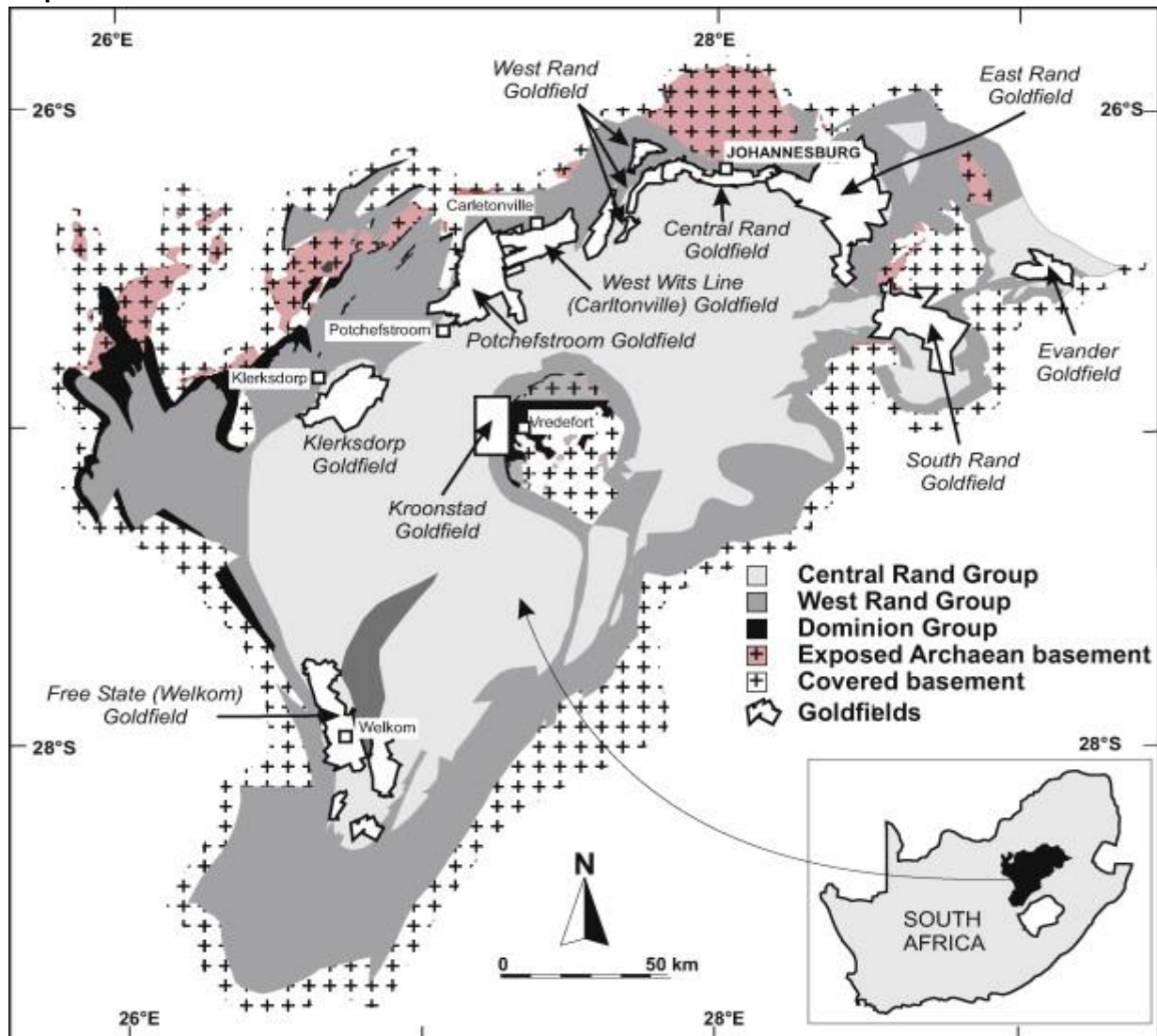
Following is an overview of the different mining houses and activities located within the West Rand. The West Rand is renowned for its gold mining.

The most predominant mining houses located within the West Rand include:

- ✓ Harmony Gold
- ✓ DRD Gold
- ✓ AngloGold Ashanti
- ✓ Goldfieds
- ✓ West Wits Mining
- ✓ Sibany's Gold

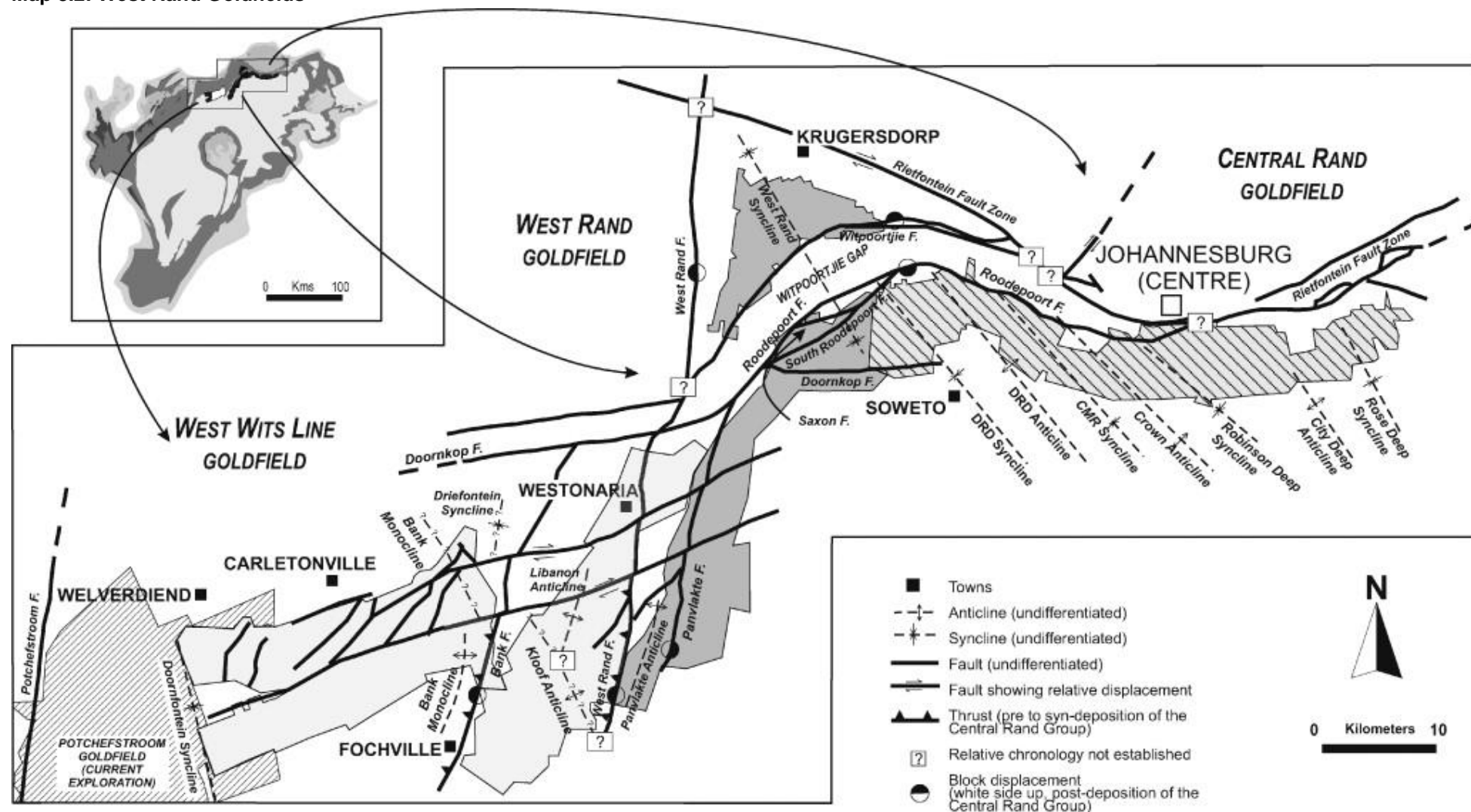
The map below indicate the Witwatersrand Basin with Ventersdorp Supergroup, Transvaal Basin sequences and Karoo Supergroup.

Map 8.1: Witwatersrand Basin



The map blow illustrates the goldfields located within the West Rand.

Map 8.2: West Rand Goldfields



8.5.1 HARMONY GOLD

The group's operations are located primarily on the Witwatersrand Basin in South Africa, encompassing ten underground operations, an open-pit mine and several surface operations which exploit the gold-bearing reefs of the Witwatersrand Basin.



Doornkop

Some 30km west of Johannesburg, Doornkop is a single-shaft operation mining the Kimberley and South Reefs to a depth of just under 2 000 metres. Doornkop uses both mechanised bord-and-pillar and narrow-reef conventional mining, with ore processed at its carbon-in-pulp plant. Production at the higher-grade South Reef project is ramping up to scheduled full production in FY16. Doornkop employed 3 979 people, including 685 contractors, in FY12.

Map 8.3: Harmony Mining Operations International



8.5.2 DRD GOLD

DRDGOLD Limited is a mid-tier, unhedged gold producer and a world leader in surface gold tailings retreatment. In FY2012 the company produced 135 708 ounces and declared attributable mineral resources of 37.6 million ounces (Moz) and attributable mineral reserves of 1.8Moz.

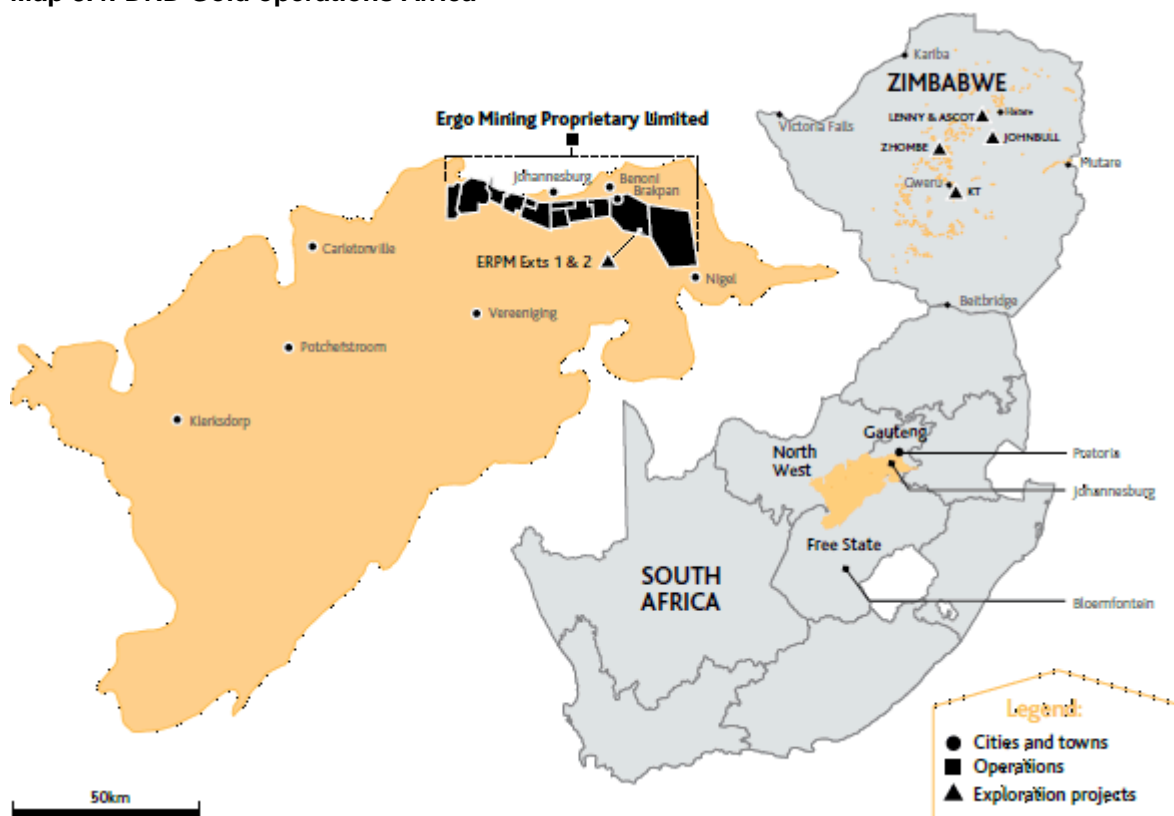


Ergo Mine

Ergo Mining (Pty) Limited (Ergo) has a vast footprint adjacent to Johannesburg on the central and eastern Witwatersrand of South Africa. Its assets cover an area approximately 62 km from east to west and 25km from north to south. This large, single footprint has been created as part of a rationalisation process and in order to simplify the structure of DRDGOLD's companies. A single retreatment business also has the effect of improving synergies and saving costs. The restructuring into a single entity took effect at the beginning of FY2013, effective 3 July 2012.

Ergo's flagship metallurgical plant, 50km east of Johannesburg in Brakpan, the Knights plant in Germiston and the City Deep plant close to Johannesburg together comprise what is arguably the world's largest gold surface tailings retreatment facility. Together with the milling and pump station at Crown Mines (formerly a plant), the new consolidated Ergo operation processes a targeted retreatment throughput of 2.0 – 2.1 million tonnes a month.

Map 8.4: DRD Gold operations Africa



8.5.3 ANGLOGOLD ASHANTI

AngloGold Ashanti's seven mining operations in South Africa are grouped into the West Wits and Vaal River regions. These deep-level operations produced 2.3 million ounces in 2007, equivalent to 43% of group production.



WEST WITS

The Mponeng, Savuka and TauTona mines are situated on the West Wits Line, near the town of Carletonville, straddling the border of the province of Gauteng and North West Province. Mponeng has its own gold processing plant while the Savuka and TauTona operations share a plant. Together, the West Wits operations collectively produced 33,258 kilograms (1,069,000 ounces) of gold, equivalent to 20% of group production.

Mponeng

Mponeng is situated close to the town of Carletonville in North West Province, southwest of Johannesburg, straddling the border with the province of Gauteng. The mine currently mines the Ventersdorp Contact Reef (VCR) with stoping taking place at an average depth of 3,054 metres. The deepest operating stope is at a depth of 3,370 metres below surface. Given the high degree of variability in the grade of the VCR at Mponeng, a sequential grid mining method is used which allows for selective mining and increased flexibility in dealing with changes in grade ahead of the stope.

Mponeng comprises a twin-shaft system housing two vertical shafts and two service shafts. Ore mined is treated and smelted at Mponeng's gold plant. The ore is initially ground down by means of semi-autogenous milling after which a conventional gold leach process incorporating liquid oxygen injection is applied. The gold is then extracted by means of carbon-in-pulp technology. The Mponeng gold plant conducts electrowinning and smelting (induction furnaces) on products from Savuka and TauTona as well.

Savuka

Savuka is situated on the West Wits line in the province of Gauteng, approximately 70 kilometres south-west of Johannesburg. Savuka is close to the town of Carletonville in North West Province. The mine currently mines both the Carbon Leader Reef (CLR) and the Ventersdorp Contact Reef (VCR). This mining operation comprises sub and tertiary shaft systems with the latter reaching a depth of 3,777 metres, making Savuka the deepest mine in the world. Longwall mining was the preferred extraction method until recently but the operation is in the process of converting to sequential grid mining. There are 23 panels currently in operation.

Ore mined at Savuka is processed firstly at TauTona's processing plant. The plant uses conventional milling to crush the ore and a carbon-in-pulp circuit to treat the ore further, after which it is sent to the Mponeng gold plant where the gold is extracted by means of electrowinning and smelting. Savuka was scheduled to close in April 2006. However, the strengthening gold price at that time, and a revised business plan for Savuka based on shared managerial and processing resources, have contributed to a turnaround at this operation which is now making a positive contribution to AngloGold Ashanti.

TauTona

TauTona is situated close to Savuka near the town of Carletonville. TauTona exploits the Ventersdorp Contact Reef (VCR) and the Carbon Leader Reef (CLR). Mining operations are conducted at depths ranging from 1,800 metres to 3,500 metres at which the deepest stoping sections are found.

The mine consists of a main shaft system supported by secondary and tertiary shafts. The mining method used here is primarily longwall mining. TauTona shares a processing plant with Savuka. The plant uses conventional milling to crush the ore and a carbon-in-pulp plant to treat the ore further. Once the carbon has been added to the ore, it is transported to the gold plant at Mponeng for electrowinning, smelting and the final recovery of the gold.

Map 8.5: AngloGold Ashanti Operations South Africa



8.5.4 GOLD FIELDS

The South Deep Gold Mine is a key asset for Gold Fields and the flagship growth project in South Africa. South Deep's production build-up is on track to deliver the required volume to achieve full production by June 2015, in line with Gold Fields' long-term stated vision, *"To be the global leader in sustainable gold mining"*

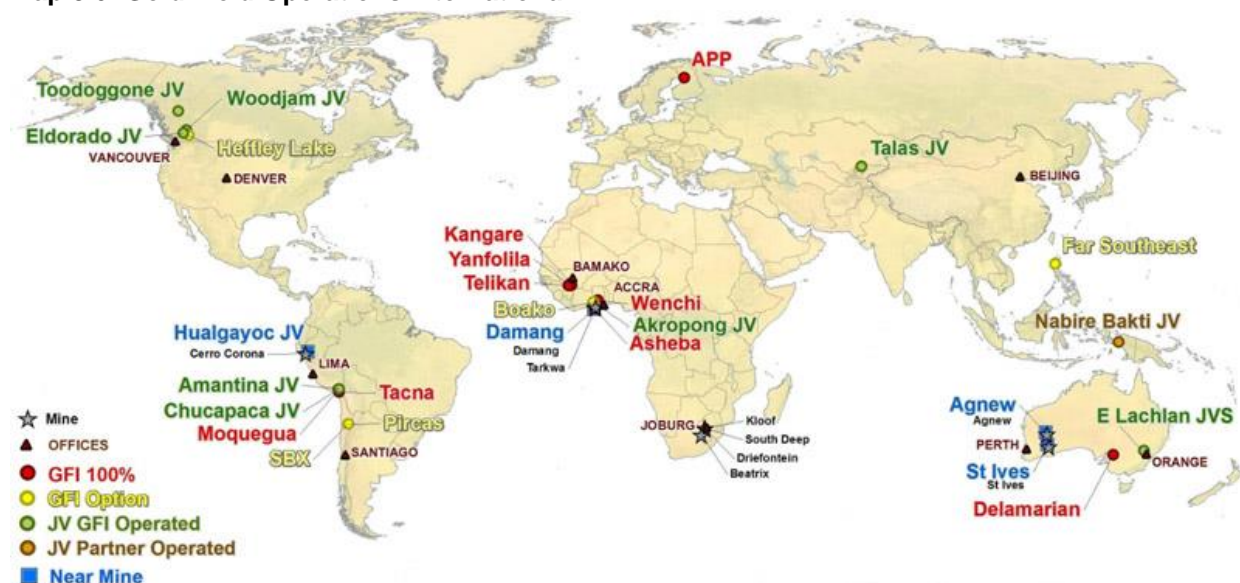


Newshelf 899 (Pty) Limited (Newshelf), which is a 90% subsidiary of Gold Fields Limited, holds a 100% interest in the South Deep Gold Mine. The remaining 10% is held by outside shareholders as part of the BEE Transaction completed in December 2010. The Mine, situated 45 kilometres southwest of Johannesburg, is an intermediate to deep level gold mine comprising two shaft systems, the older South Shaft complex with its main shaft and two sub-vertical shafts, and the newer complex known as Twin Shafts. Ore is processed at a central metallurgical plant. The mining right area totals 4,268 hectares, which includes the area previously known as Uncle Harry's.

South Deep has been designated by Gold Fields as a developing mine and a project to increase ore production to 330,000 tonnes per month, is currently in progress. This project includes the establishment of a new tailings storage facility, the deepening and equipping of the ventilation shaft at the Twin Shaft Complex to hoist both reef and waste material, increasing the metallurgical plant capacity and establishing the underground infrastructure to access Mineral Reserves to the south of the current workings. In order to further improve the confidence in the Mineral Resource estimate of this area, a major surface drilling project is also underway.

The primary economic target is the Upper Elsburg Reef package, which, due to its geometry, lends itself to a mine design that is fully mechanised, and the Ventersdorp Contact Reef as a secondary economic target. It is planned that South Deep will be able to mine 330,000 tonnes per month by 2015. At this production rate, South Deep will produce approximately 700 koz per annum. It is currently estimated that South Deep will be able to maintain this profile until 2057, with the end of life expected to be in 2080.

Map 8.6: Gold Field Operations International



8.5.5 WEST WITS MINING

The Central Rand Group of sediments host all the mineralised reefs located on the West Rand Goldfield. Sedimentary deposition across the stable granite-gneiss basement commenced around 3 billion years ago. In stratigraphic terms the Witwatersrand sequence is divided into two divisions, the lower dominantly marine, slate rich West Rand Group and the upper dominantly aluvial sandstone rich Central Rand Group. Combined, these units make up a sedimentary package up to 7km thick.



Sedimentary deposition ended approximately 2,700 million years ago when widespread faulting resulted in extensive lavas of the Ventersdorp supergroup covering the Witwatersrand Basin. Reef groups located on the West Rand in order of oldest to youngest are the Main, South, Johnstone, Livingstone, Bird, Kimberley, Elsburg and Ventersdorp Contact Reefs.

The Bird Reef Group

The Bird Reef Group consists of up to five individual reefs; the Upper Monarch Zone 4 (Alpha), the Upper Monarch Zone 2 (Beta), the Monarch, the Footwall Monarch (middle) and the White Reefs. The Bird Reef Group is comprised of coarse quartz conglomerate horizons measuring up to 1.5m thick and containing numerous sulphides, gold and the uranium mineral uranite. Ore body geometry of the Bird Reef Group is classified as continuous through the West Rand Goldfield. The Bird Reef Group dips generally 30-40 degrees to the south, and strikes in a general east-west orientation.

The Kimberley Reef Group

The Kimberley Reef Group extends across the majority of the Company's Project Area. The Company believes the Kimberly Reef Group holds the potential for shallow mineralisation and possible underground mining. The Kimberley Reef Group consists of two dominant individual reef horizons; the Boulder (Lindum) and the Battery (Horsham) reefs. For many years these reefs provided the main source of gold on the West Rand Goldfield. The Kimberley Reef Group was known to have good continuity, with reef thicknesses varying from as little as half a metre to as much as 15 metres. The Kimberley Reef Group generally dips 30-40 degrees to the south and strikes in a general east- west orientation.

The Main and South Reef Groups

The gold bearing Main and South Reefs are the most extensively mined reefs on the Company's Project Area. These reef groups have a width ranging from a few centimetres up to a few metres and were mined to depths in excess of 2,000m in some sections of the Project Area. The Main and South Reef Groups were the first reefs in the Witwatersrand to be mined and were historically of a higher grade.

The Elsburg Reef Group

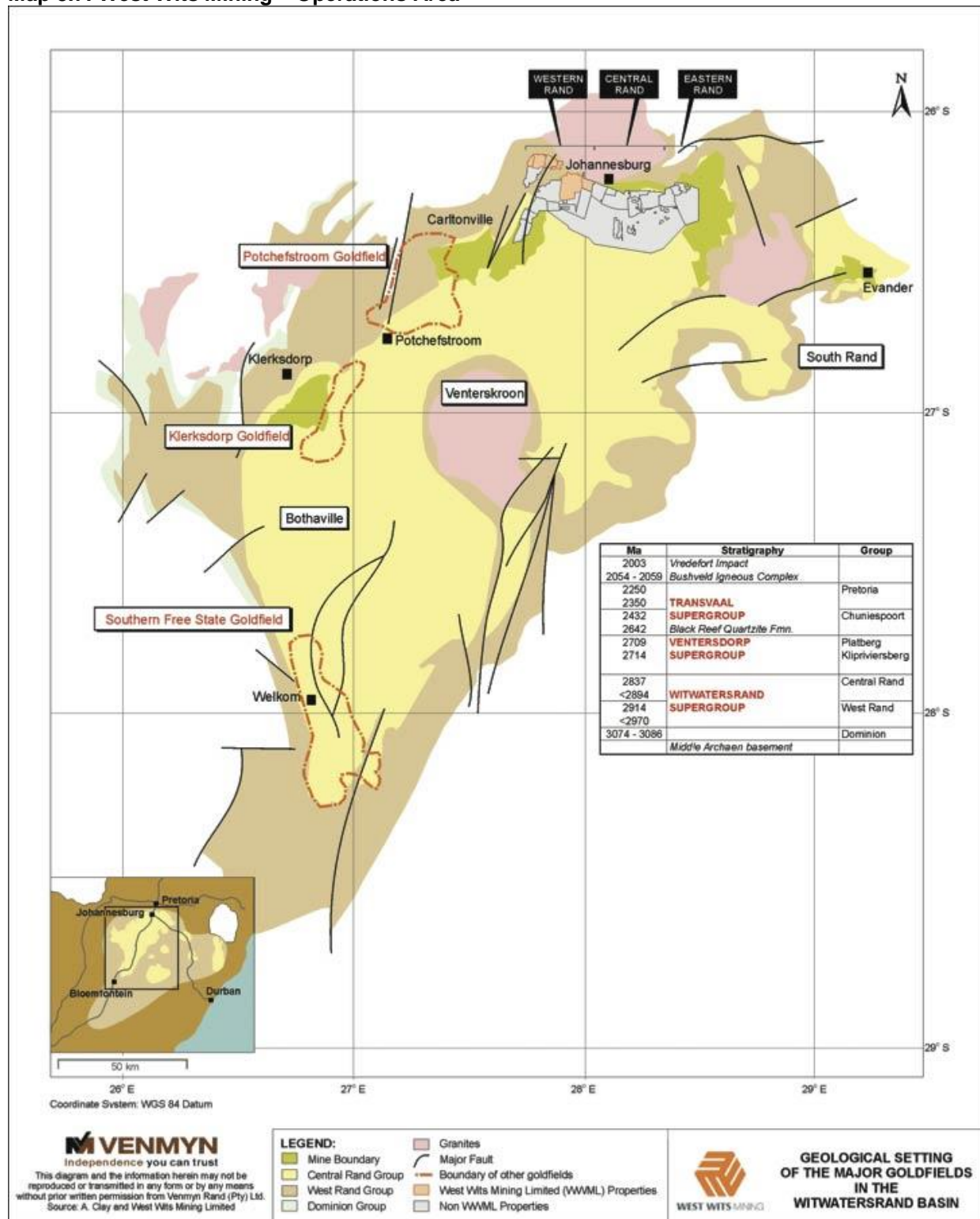
The Elsburg Reef Group is located on the DRD and Rand Lease, is stratigraphically younger than the Kimberley Reef Group and was not extensively explored or mined as it was regarded as uneconomic.

The Elsburg Reef Group is currently being successfully mined by other mining companies on the Witwatersrand for gold with minor uranium. The Company has identified this reef as a potential target, warranting further attention.

The Ventersdorp Contact Reef Group

Ventersdorp Contact Reef Group (VCR) is found on the unconformable boundary between the sediments of the Central Rand Group and the basalts of the Ventersdorp supergroup. The gold bearing VCR received minor exploration attention by the previous owners with moderate success. Original exploration drilling results are unavailable, however the Company believes this reef warrants investigation.

Map 8.7: West Wits Mining – Operations Area



8.5.6 SIBANYE GOLD

KDC Mine

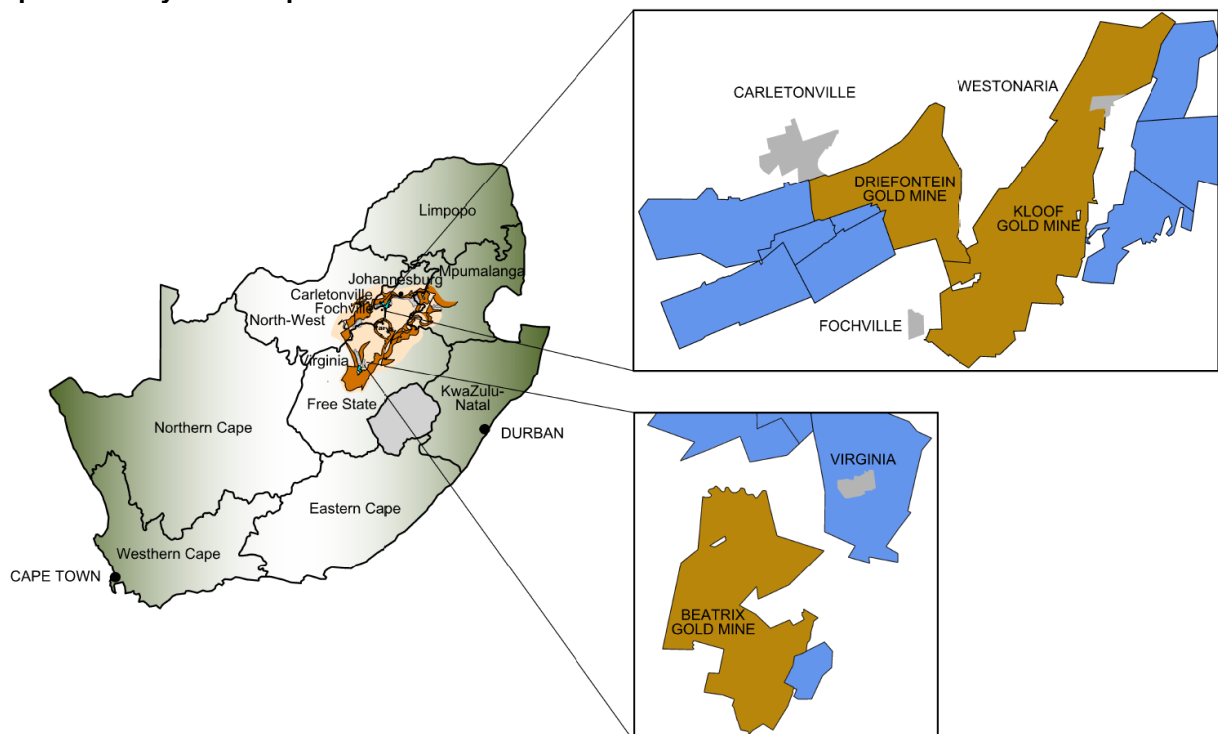
The mine is situated between 60 and 80 kilometres west of Johannesburg near the towns of Westonaria and Carletonville in the Gauteng Province of South Africa. KDC is a large, well-established shallow to ultra-deep level gold mine with workings that are accessed through, 12 shaft systems (five business units – BU's) that mine various gold-bearing reefs from open ground and pillars that occur at depths between 600 and 3,347 metres below surface. The shaft systems include 10 sub-vertical shafts and two tertiary shafts. Ore extracted from the gold bearing reefs is processed at two metallurgical plants



The formation of KDC was designed to create an environment of uniformity, alignment and cohesion that will enhance the singular identity that will underpin the new consolidated operation. The overall strategy of the amalgamation of the two mines was to improve operational and financial efficiencies in line with Gold Fields' long-term stated vision, "To be the global leader in sustainable gold mining", which encompasses safety and human capital as well as the environmental and social licence to operate.

During the past 12 months KDC produced 1.1 Moz of gold from a combination of underground mining and processing of surface waste rock dump material. KDC employees costed for the period was 26,685 including contractors. The area mined averaged some 62,888 m² per month, underground ore processed at 400 kt per month and surface material treated 501 kt per month. Total gold production averaged some 2,852 kg per month at an average yield grade of 3.2 g/t. Significant increases in power, consumables and labour costs have limited the benefit of an increased gold price with the effect that pay limits show a slight increase year-on-year.

Map8.8: Sibanye Gold Operations Outh Africa



8.6 SYNTHESIS

From the above analysis, it is clear that the West Rand has a strong historic mining character and function. Some of the largest mining houses in South Africa are situated within the West Rand with numerous mining activities / operations.

Over the past 10 to 20 years the growth of South Africa's secondary and tertiary industries, the relative contribution of mining to South Africa's gross domestic product (GDP) has declined. Nonetheless, the industry is continually adapting to changing local and international world conditions, and remains a cornerstone of the economy, making a significant contribution to economic activity, job creation and foreign exchange earnings. Mining and its related industries are critical to South Africa's socio-economic development. The sector accounts for roughly one-third of the market capitalisation of the JSE, and continues to act as a magnet for foreign investment in the country.

CHAPTER 9: INDUSTRIAL OPERATIONS ON THE WEST RAND

9.1 INTRODUCTION

Historically the industrial operations in the West Rand are mainly located along the mining belt / in close proximity to the mining operations. Industrial operations, according to the Standard Industrial Classifications (SIC) manufacturing division, can briefly be defined as follows:

Manufacturing includes the physical or chemical transformation of materials, substances, or components into new products. Substantial alteration, renovation or reconstruction of goods is generally considered to be manufacturing.

Most of the industrial nodes within the West Rand are in the business of transforming raw materials into products – linked to mining operations. The Industrial operations within the West Rand is analysed on a macro, meso and micro level. On a micro level, an overview of the current state of the industrial operation within the West Rand is highlighted. In addition, the 12 industrial nodes are analysed and compared to gain a better understanding of the role and function of each individual industrial node.

MACRO LEVEL

9.2 IN-DEPTH INDUSTRIAL LOCATIONAL FACTOR ANALYSIS

Due to the idiosyncratic demands that exist with regards to generic opportunities, the choice regarding the most suitable location for a specific type of economic activity does not take place at random. It involves the application of decision criteria that combines the knowledge of economic resources and markets with the financial principles of cost-benefit analysis. The unique characteristics of the West Rand area combined with the size and location of product markets suggest that the area is suitable for very specific types of economic activities. Furthermore, the alignment of policies to national policies and initiatives also has an effect on the location of economic activities and provides for a need for intervention.

The purpose of this section is to identify the major factors that influence the location of economic activities and to interpret the findings into specific implications for the location of economic activity in the West Rand District Municipality.

In order to discuss the location factors for industrial development in the West Rand, the history behind the development of the area gives a background understanding of why this area has developed over the years.

Merafong City: Merafong's historical development is closely knit with the discovery of rich gold reefs in the early nineteen thirties. The three towns of *Carletonville*, *Fochville* and *Wedela* each developed as individual entities with their own characteristics. *Fochville* is the oldest unit, established by two residents, Messer's Wulfson and Horvitch and was declared a town in 1951. A mine engineer from a gold mining company Gold Fields, Guy Carleton Jones, played a prominent role in the discovery of the so-called West Wits line Gold Reef, of which *Carletonville* forms part. The town Carletonville was named after him. As a result of the strategic location and already developed Oberholzer district, the Gold Fields Mine Group decided in November 1946 to establish a town. Carletonville was proclaimed in 1948 and attained Town Council Status on 1 July 1959. *Wedela* was established as a mining village, many years later in December 1978, by Mr. Harry Oppenheimer. The town is situated between Western Deep Levels and Elandsrand Gold Mine. The town's name is derived from the prefixes of the two mines, namely the Wed of Western Deep Levels and the -ela of Elandsrand. Municipal status was granted to

Wedela on 1 January 1990. Attached to Fochville and Carletonville are also the towns of Khutsong, Kokosi and Greenspark, Welverdiend, and Blybank

Mogale City: Mogale City is named after Mogale wa Mogale, who took over the Po Chieftdom following the death of his father in the 1820s at the hands of Mzilikazi's warriors. The Batswana ba Po was one of the original tribes that inhabited the region. They were miners and traders of gold, with links to other peoples across the continent. The contribution made by the chief and his people was long ignored, but in 2001 their status was restored with the renaming of the municipality from Krugersdorp Local Council to Mogale City. Mogale was formerly a mining city founded in 1887 by Marthinus Pretorius and named after Paul Kruger. Apart from gold, manganese, iron, asbestos and lime are also mined in the area. This is the site of the December 1880 gathering at which more than 6,000 men vowed to fight for the Transvaal's independence. When gold was discovered on the Witwatersrand, a need arose for a major town in the west of the reef. The government bought part of the farm Paardekraal and named the new town after the Transvaal President Paul Kruger. The British built a concentration camp here during the Second Boer War to house Boer women and children. In 1952 the West Rand Consolidated Mine was the first in the world to extract uranium as a by-product of the gold refining process. Mogale City includes Krugersdorp, Azaadville, Munsieville, Kagiso, Tarlton, Hekpoort and surrounds, stretching into Magaliesberg.

Randfontein: Randfontein emerged as a gold mining town during the late 1800s. With the Witwatersrand gold rush in full swing, mining financier JB Robinson bought the farm Randfontein and, in 1889, floated the Randfontein Estates Gold Mining Company. The town was established in 1890 to serve the new mine and was administered by Krugersdorp until it became a municipality in 1929. Apart from having the largest stamp mill in the world (used in early paper making for preparing the pulp), Randfontein, like many of the other outlying areas of Johannesburg, is essentially a rural collection of farms and small holdings in a particularly beautiful part of Gauteng. Randfontein includes Mohlakeng and Toekomsrus.

Westonaria: Westonaria was proclaimed in 1938 as a result of all the mining activities that took place in this area since 1910 when the first shaft – Pullinger Shaft was sunk. Venterspost town was proclaimed in 1937; Hillshaven, Glenharvie, Waterpan and Libanon were mainly established as mining residential areas. Westonaria Local Municipality is providing services to these areas. Zuurbekom is mainly earmarked for agricultural purposes. Bekkersdal was established in 1945 and administered under Westonaria Town Council; Simunye Proper is situated next to the R28 and Simunye Extension 2 (Phases 1 – 4) was developed for the development of the Presidential RDP project. Westonaria is situated amidst gold fields and forms the nucleus of five gold mines. The town is approximately 45 km from Johannesburg and is accessible by road and rail making it convenient for commuters to Johannesburg. The greater Westonaria consists of a number of satellite towns, being –Westonaria, Hillshaven, Glenharvie, Venterspost, Libanon, Waterpan, Bekkersdal and Simunye.

➤ INDUSTRIAL LOCATIONAL FACTORS

The theory of industrial location identifies five major factors that influence the choice of the location of individual economic activity, namely:

1. Labour Orientation
2. Market Orientation
3. Resource Orientation
4. Agglomerative Economy Orientation
5. Logistics Orientation

Subsequent sections of this section discuss each of these factors with cross-referencing being made to the West Rand.

1. LABOUR ORIENTATION

A firm is said to be labour-oriented if it chooses its location in such a way as to take advantage of favourable labour conditions in that location. Labour-orientation can be taken in two ways, that is, either the cost of labour in the area is lower or they have no effect at all.

Labour orientation is influenced by a number of interrelated factors such as:

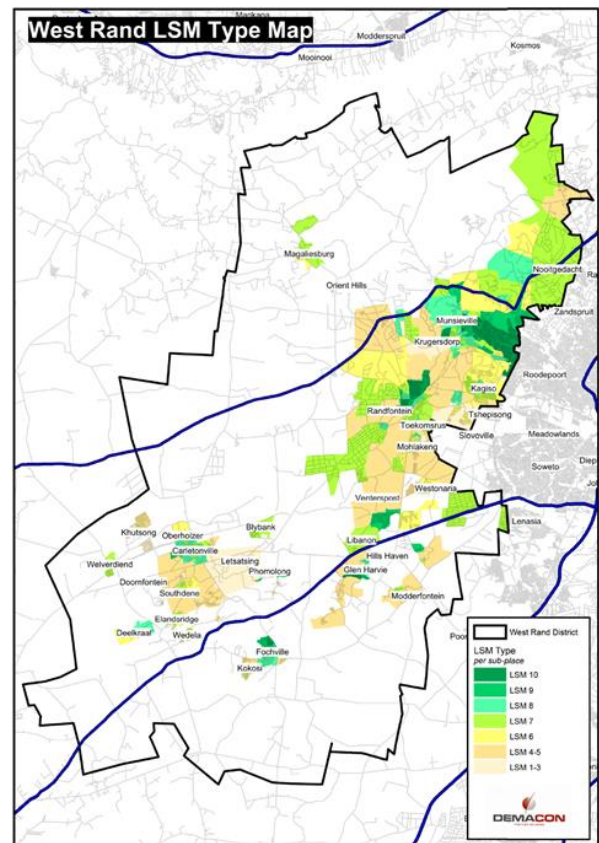
- ✓ Wage levels
- ✓ Productivity
- ✓ Turnover and work stoppage rates
- ✓ Supply of adequately skilled labour
- ✓ Labour laws

Characteristics of the West Rand labour force are discussed in Chapter 7 of this study with emphasis having been placed on the level of education, occupation, wage levels among other factors related to labour.

Implications for the West Rand

Chapter 5 presented the labour market profile of the West Rand and related local municipalities and the type of occupation indicates relatively semi-skilled to low skills levels in the area. Most of the local labour force is located within rural town surrounding the main nodes. Following is a brief summary of the different nodes per local municipalities and surrounding towns:

- ✓ **Merafong City:** Carletonville and Fochville are two of the main nodes located within Merafong city. Khutsong is located approximately 7km from Carletonville and Welverdiend approximately 10km. Kokosi is located approximately 3km from Fochville. Wedela is located approximately 11.5km from Carletonville and Fochville.
- ✓ **Mogale City:** Krugersdorp is the main node located within Mogale City. Kagiso is located approximately 6km and Munsiville 2km from Krugersdorp. In addition Azaadville is located approximately 8.5km and Rietvallei approximately 11.5km from Krugersdorp. Other settlements in Mogale City are Tarlton, Magaliesburg and Hekpoort, located in the western part of Mogale City.
- ✓ **Randfontein:** Randfontein CDB is the main node located within Randfontein and is surrounded by Mohlakeng (5km), Toekomsrus (3km) and Badirile (12.5km).
- ✓ **Westonaria:** Westonaria CBD is the main node located within Westonaria and is surrounded by Hillshaven (5km), Glenharvie (7.5km), Venterspost (6km), Libanon (6km), Waterpan (7.5km), Bekkersdal (6km) and Simunye (3.5km)



Additionally employment data for the area of the West Rand District municipality indicates that more than 9.5% of people are employed within the manufacturing sector and 21.5% of people are employed in the mining sector (a total of 31%).

2. MARKET ORIENTATION

Market orientation is the traditional explanation for industrial location with a firm being market oriented if it attempts to reduce the cost of transporting output, be it final or intermediate, by locating in proximity to the market where these goods are sold. Market size is predominantly driven, directly or indirectly, by population size, hence the concentration of approximately 16.0% of the West Rand's manufacturing and 13.3% mining concerns is situated within the Districtl area.

The criteria normally utilised to determine these growth points are:

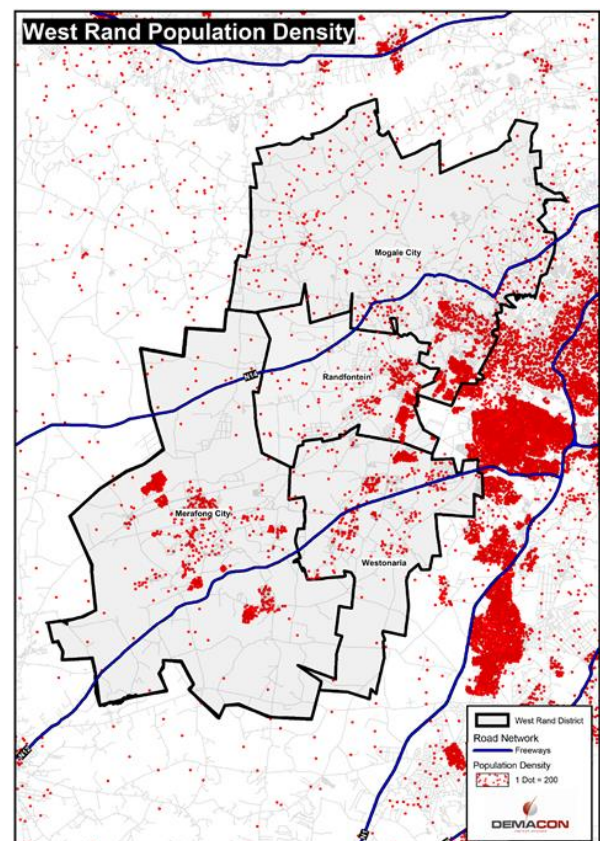
- ✓ Population concentrations
- ✓ Level of economic activity
- ✓ Availability of infrastructure
- ✓ Strategic location of developmental corridors
- ✓ Economic development potential

The West Rand has most of the attributes described above and the local economy is made up of ten economic sectors that make up the national economy.

Implications for the West Rand

The West Rand is mainly characterised by numerous gold mining houses located within the district with the export market as the main target. The West Rand is easily accessible via the N14 and N12 and is in close proximity to Johannesburg. The road infrastructure is well maintained and as a result reduces transport time to South Africa's biggest market. From a market orientation perspective, most of the manufacturing opportunities exist due to the mining operations located within the West Rand. Easy access to the international market is evident with the close proximity of OR Tambo International Airport about 73km (55min) from Krugersdorp.

The local economy was driven mainly by the manufacturing and mining sectors with the development of the other sectors (finance, trade, government and community services) as the development in mining and manufacturing increased. Currently, Harmony, AngloGold Ashanti and Gold Fields are the major drivers in the West Rand.



3. RESOURCE ORIENTATION

Resource orientation refers to a situation when firms locate near firms in the primary resource extracting sector mainly mining. The objective being to reduce the transportation costs of primary inputs as they are extraordinary bulk loads which are costly. Typical examples in this category include food processing, lumber processing, and primary metal industries. The use of primary resources often results in a net weight loss in the manufacturing process from primary inputs to final product. Hence cost savings incurred on the processed product provide motivation for a firm to locate in the proximity of its source of primary resources. Industrial activities that benefit from primary resource extractors are called first stage resource users. Firms with a resource orientation also include producers that utilise products of first stage resource users.

Implications for the West Rand

The local economy is essentially primary resource based and thus provides opportunities for resource oriented firms. Possible opportunities exist in the further processing and beneficiation of the mining and manufacturing products. The main resource still extracted from the area is gold. The development of most of the towns in the West Rand was as a result of the proximity of gold mines as the main input into the secondary refinery and manufacturing plants. Although with the decline in the mining industry, substitute manufacturing activity should be developed and expanded within the area.

4. AGGLOMERATIVE ECONOMY ORIENTATION

Agglomeration refers to the spatial concentration of related and inter-dependent economic activities. Due to the relationship between these firms and the spatial proximity to one another, strong inter-industrial linkages develop which enables the respective firms to maximise profits and become more effective.

There are two prominent and distinct types of agglomeration and these are:

- ✓ **Localisation economies:** Applies to all firms in a particular industry that tend to locate together. This is motivated by factors such as factor input/output materials source and forward and backward linkages with auxiliary industries in the same locality.
- ✓ **Urban concentration economies:** These benefit all firms in all industries as a result of the following:
 - Large market
 - Large pool of skilled labour
 - Commercial and financial services and other support services.

Implications for the West Rand

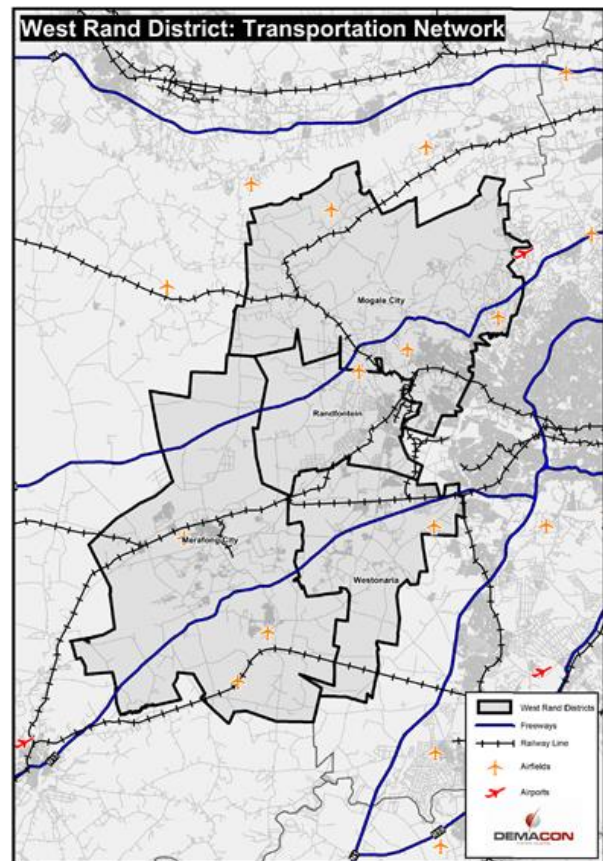
Agglomeration economies in the West Rand area can be identified in the localisation economies with potential opportunities for forward and backward linkages. It is anticipated that the area could possibly attract new development that are related to forward or backward linkages for gold mining and alternative manufacturing. The area, however, should concentrate on attracting lighter industries to the area with exporting opportunities in mind.

5. LOGISTICS ORIENTATION

Logistics can be defined as an organisation of movement and relates to an integrated network of transportation, communications, distribution and auxiliary facilities and institutional arrangements that facilitate investment and the movement of goods and services. The networks include roads, bridges, railways, and air links.

Implications for the West Rand

The West Rand is well connected with the N12 N14 to the rest of Gauteng. The road infrastructure is well maintained and as a result reduces transport time to South Africa's biggest markets. The West Rand is characterised by a large number of gold mining houses and related industrial activities spatially located along the major roads. Easy access to the international market is evident with the close proximity of OR Tambo International Airport about 73km (55min) from Krugersdorp. The existence of the local industrial market and related infrastructure presents possible opportunities (forward and backward linkages) for investment projects in the District. Specifically projects that present further export opportunities could be explored.



MESO LEVEL

9.3 GAUTENG INDUSTRIAL STRATEGY TARGET SECTORS

The Gauteng Industrial Policy Framework (2010-2014) has identifies some main industrial sectors future development should be focused on. These primary sectors include:

- ✓ Food and beverages - Including agro-processing
- ✓ Furniture - Role of Government as a consumer of furniture should be considered
- ✓ Textiles and Clothing - Focus on innovation and new technology, export capabilities, achievement of firm and value chain competitiveness training and incentive support measures
- ✓ Construction
- ✓ Machinery and Equipment - Specific emphasis on manufacturing of power boilers, valves and pumps
- ✓ Automotive and Components

Following is a brief overview of the different main sectors identified by the Gauteng Industrial Policy Framework (2010-2014) for future investment and development.

MICRO LEVEL

9.4 LOCAL MARKET INDICATORS

Following is an overview of the industrial rentals and vacancies and the industrial stand values in relation to the West Rand and the respective four local municipalities.

9.4.1 INDUSTRIAL RENTALS AND VACANCIES - 2013

GROWTH IN INDUSTRIAL RENTALS HEATING UP, BUT WE'RE NOT OUT OF THE WEEDS YET (RODE'S REPORT 2013:Q1)

On a national basis, the yearly growth in industrial rentals is slowly heating up, seemingly benefiting from the lagged impact of declining industrial property vacancy rates.

Vacancy rates on warehouses and high-tech property dropped during 2010 and 2011, since 2011 the growth in prime industrial rentals has heated up. In fact, which has been the acceleration in the growth of market rental that the fourth quarter of 2012, prime industrial rental recorded a nationally average growth rate of 7%. Disappointingly, this growth failed to be in excess of building-cost inflation, implying that we are, as yet, not out of the woods when it comes to industrial property.

One note a strong inverse relationship between vacancies and rental growth – exactly as one would expect.

Regarding industrial rental in the major industrial regions, in the fourth quarter of 2012 the strongest yearly growth of 9% was achieved in the Cape Peninsula. This was followed by Durban (+6%), the East Rand (+5%), the Central Witwatersrand (+4%) and Port Elizabeth (+4%). Over the same period, building costs are expected to have grown by 9%. This implies that in all of the regions (barring the Cape Peninsula) *real* rentals actually declined.

For now,, good news for the industrial property market comes from the manufacturing sector. Possibly thanks to a weak exchange rate, the yearly growth in output produced by the manufacturing sector has in recent quarters been gaining momentum. In the fourth quarter of 2012, the yearly growth in output produced by the manufacturing sector accelerated to just over 4%. Having said that, tough business conditions for manufacturer seem to prevail. At the time of writing this report, the Kagiso Purchasing Managers Index (PMI) was unable to punch through the break-even level of 50.

What's more, without bearing in mind the export competitiveness that a weak currency brings in the short term, the current feeble global economic conditions presage continued tough times for the South African manufacturing sector. The Ifo World Economic Survey (WES) investigates world-wide economic trends by polling transnational as well as national organisations in different countries.

There is a correlation between SA's growth in manufacturing output and the trend in the Ifo's World's Economic Climate index. The metric of the pre sent world economic situation has been trending south since 2011. It seems the current uptick in SA manufacturing output is not sustainable.

The following table, pioneer industrial rentals, provide a quick-and-dirty prognosis for the short-term direction of industrial rental. Often pioneer rental levels represent leases signed on newly erected pre=let buildings, and these of course reflect today's building costs, as developers naturally expect a fair return on their development cost.

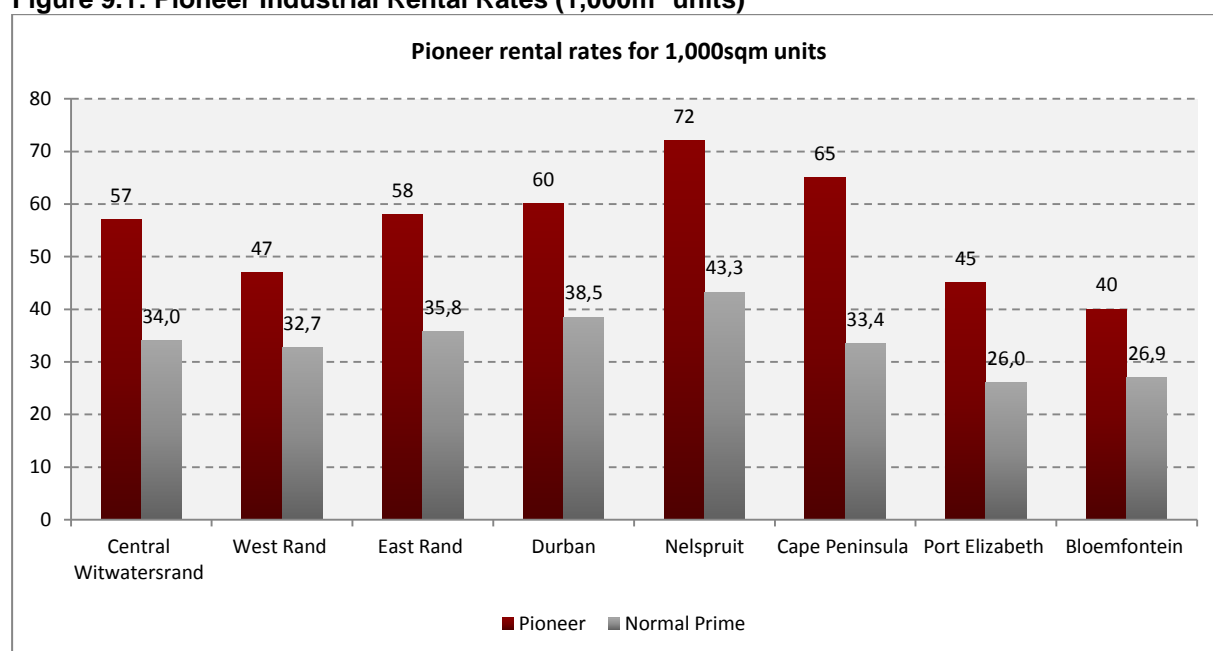
Table 9.1: Industrial Rental Rates for New State of art Developments

	Pioneer	Normal Prime	Difference (%)
Central Witwatersrand	57.00	34.00	68%
West Rand	47.00	32.65	44%
East Rand	58.00	35.78	62%
Durban	60.00	38.50	56%
Nelspruit	72.00	43.25	66%
Cape Peninsula	65.00	33.44	94%

Port Elizabeth	45.00	26.02	73%
Bloemfontein	40.00	26.94	48%

Source: Demacon ex, Rode Q1:2013

Figure 9.1: Pioneer Industrial Rental Rates (1,000m² units)



Source: Demacon ex, Rode Q1:2013

The following tables and figures illustrate time series data for the *Mean Prime Industrial Rental as in Quarter 2012:4* for the monitored industrial nodes per local Municipality (within the West Rand District Municipality).

Table 9.2: Mean Prime Industrial Rental as in Quarter 2012:4 – Mogale City LM

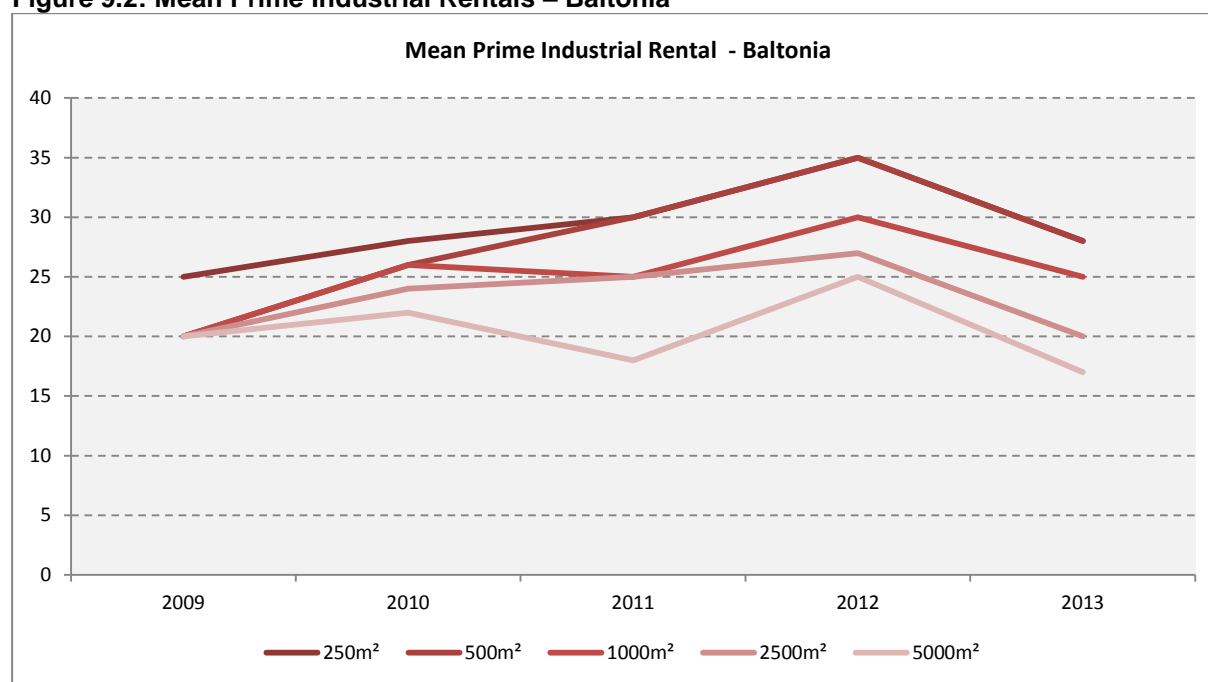
Mogale City						
	Area Size in m ²					Vacancy
	250	500	1 000	2 500	5 000	
Boltonia						
2013	28.00	28.00	25.00	20.00	17.00	0.0
2012	35.00	35.00	30.00	27.00	25.00	1.0
2011	30.00	30.00	25.00	25.00	18.00	2.0
2010	28.00	26.00	26.00	24.00	22.00	1.0
2009	25.00	20.00	20.00	20.00	20.00	-
Chamdor						
2013	28.00	25.00	25.00	20.00	17.00	1.0
2012	27.00	25.50	23.50	21.00	20.00	1.2
2011	27.50	25.00	26.00	21.00	19.00	1.5
2010	26.25	25.50	24.50	22.00	20.25	1.8
2009	22.50	21.00	19.50	18.50	18.50	2.0
Delporton						
2013	n/a	n/a	n/a	n/a	n/a	n/a
2012	n/a	n/a	n/a	n/a	n/a	n/a
2011	n/a	n/a	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a	n/a	n/a
Factoria						
2013	28.00	28.00	25.00	20.00	17.00	1.0

2012	26.50	25.00	23.50	21.00	19.00	2.0
2011	27.50	27.50	36.00	21.00	19.00	2.5
2010	29.00	28.00	27.00	24.50	21.00	1.5
2009	25.00	20.00	20.00	20.00	20.00	-
Muldersdrift						
2013	n/a	n/a	n/a	n/a	n/a	n/a
2012	n/a	n/a	n/a	n/a	n/a	n/a
2011	n/a	n/a	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a	n/a	n/a
Nooitgedacht						
2013	n/a	n/a	n/a	n/a	n/a	n/a
2012	n/a	n/a	n/a	n/a	n/a	n/a
2011	n/a	n/a	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a	n/a	n/a

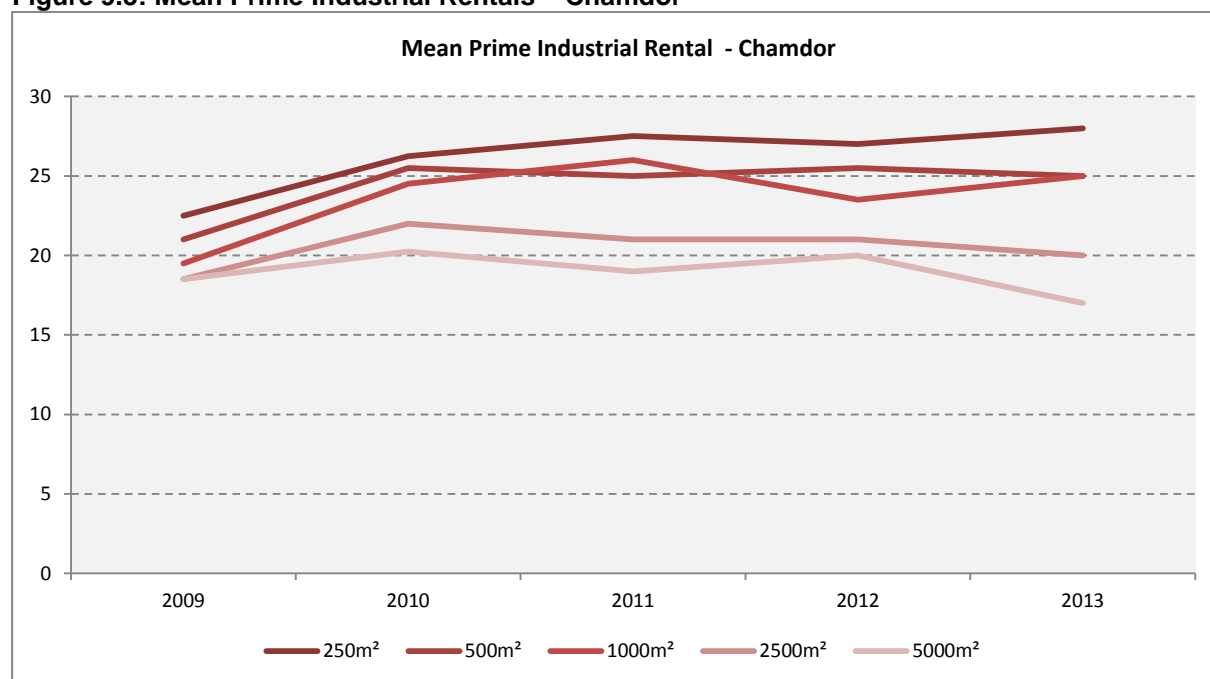
*Fariaville – Vacant

Within Mogale City local municipality, only three of the seven industrial nodes are monitored.

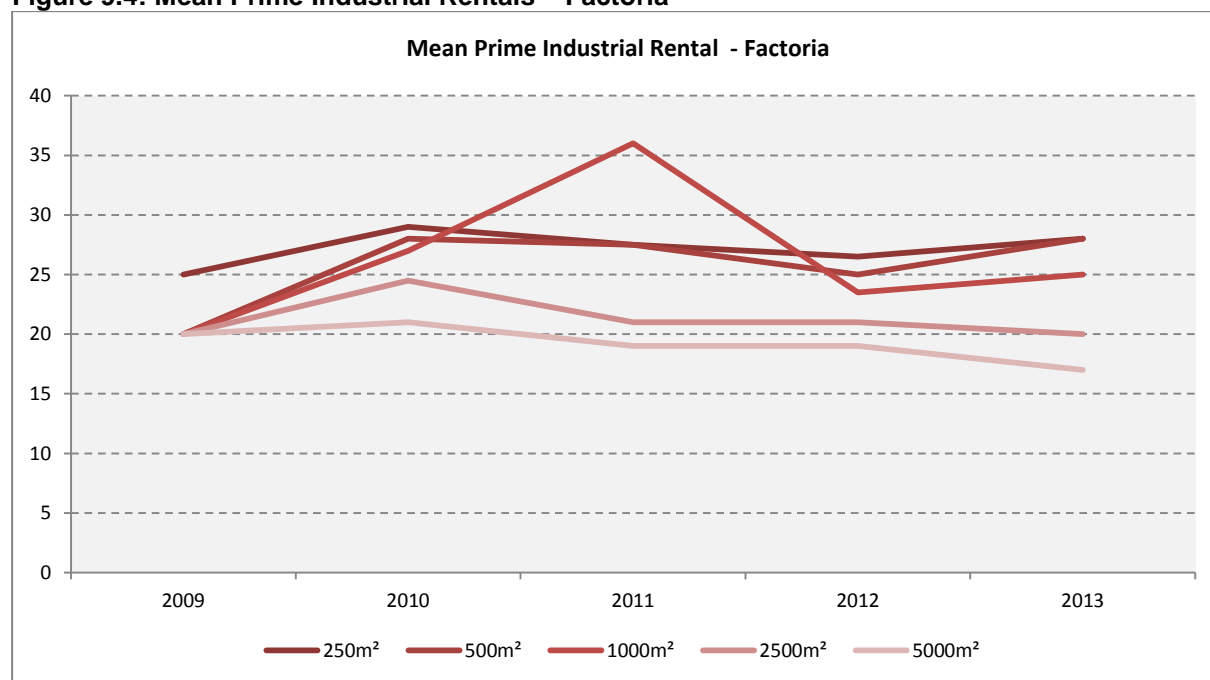
Figure 9.2: Mean Prime Industrial Rentals – Baltonia



Source: Demacon ex, Rode Q1:2013

Figure 9.3: Mean Prime Industrial Rentals – Chamdor


Source: Demacon ex, Rode Q1:2013

Figure 9.4: Mean Prime Industrial Rentals – Factoria


Source: Demacon ex, Rode Q1:2013

Table 9.3: Mean Prime Industrial Rental as in Quarter 2012:4 – Merafong City LM

Merafong City LM						
	Area Size in m²					Vacancy
	250	500	1 000	2 500	5 000	
Carletonville Extension 6						
2013	n/a	n/a	n/a	n/a	n/a	n/a
2012	n/a	n/a	n/a	n/a	n/a	n/a
2011	n/a	n/a	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a	n/a	n/a

Oberholzer						
2013	n/a	n/a	n/a	n/a	n/a	n/a
2012	n/a	n/a	n/a	n/a	n/a	n/a
2011	n/a	n/a	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a	n/a	n/a

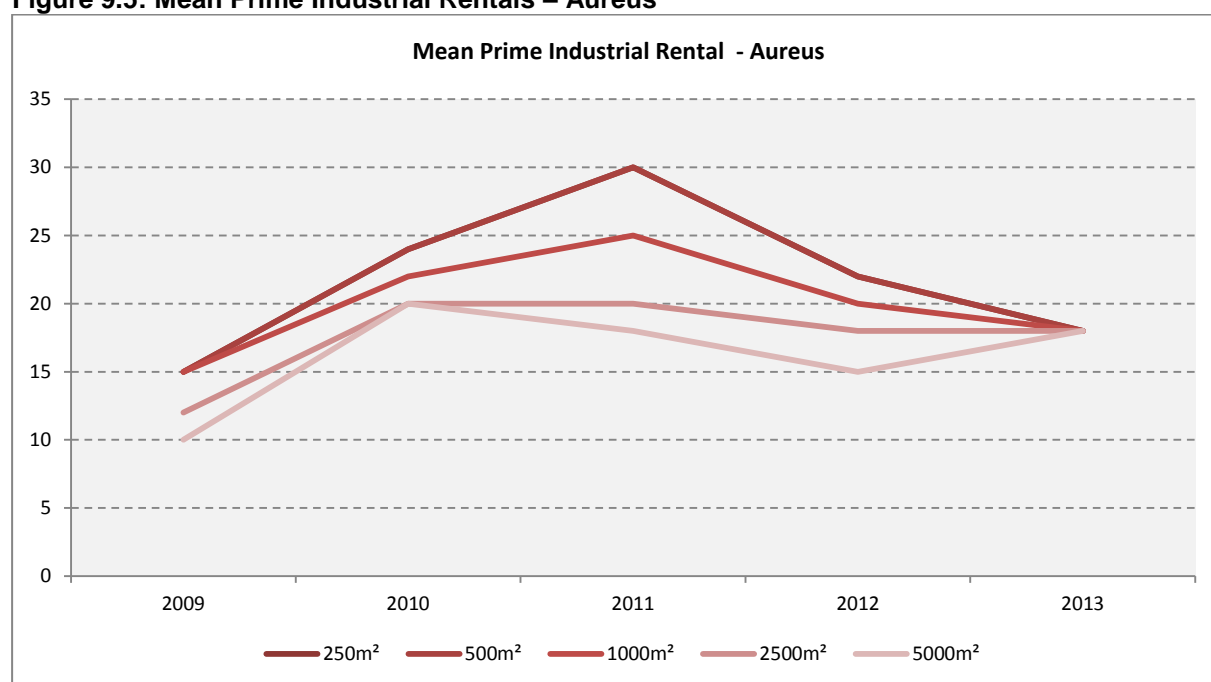
There are no monitored industrial nodes within the Merafong local municipality.

Table 9.4: Mean Prime Industrial Rental as in Quarter 2012:4 – Randfontein LM

Randfontein LM						
	Area Size in m²					Vacancy
	250	500	1 000	2 500	5 000	
Aureus						
2013	18.00	18.00	18.00	18.00	18.00	3.0
2012	22.00	22.00	20.00	18.00	15.00	3.0
2011	30.00	30.00	25.00	20.00	18.00	2.0
2010	24.00	24.00	22.00	20.00	20.00	1.0
2009	15.00	15.00	15.00	12.00	10.00	2.0

The Aureus industrial node in the Randfontein local municipality is monitored.

Figure 9.5: Mean Prime Industrial Rentals – Aureus



Source: Demacon ex, Rode Q1:2013

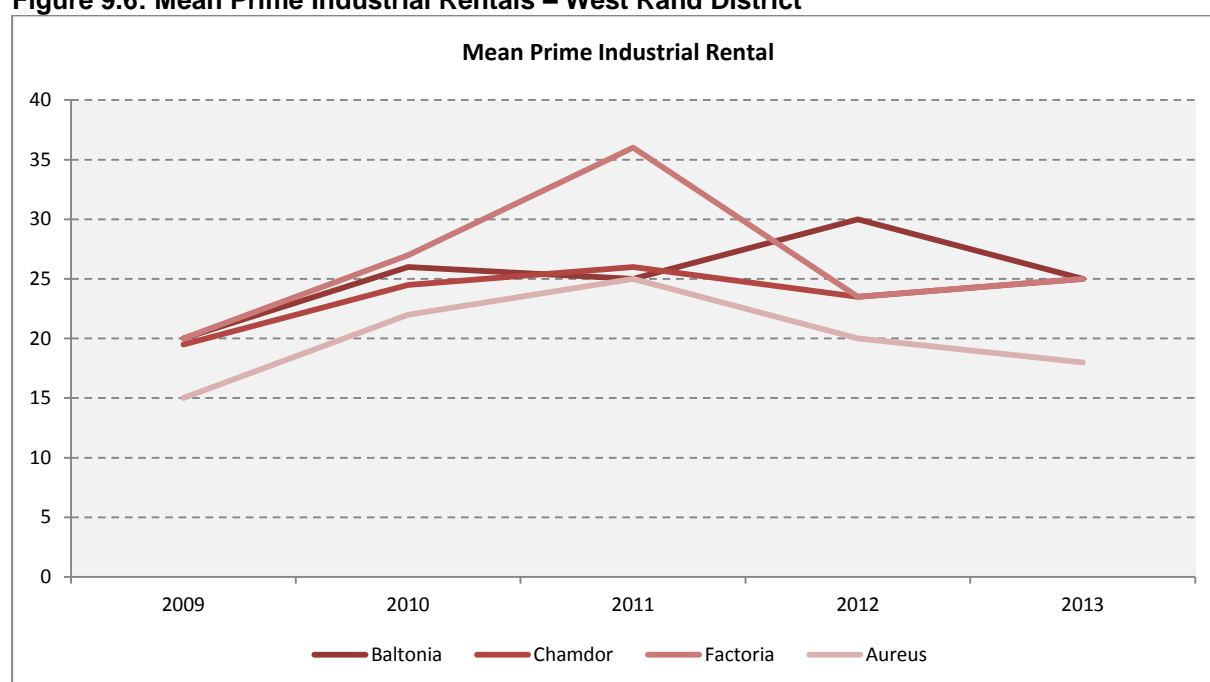
Table 9.5: Mean Prime Industrial Rental as in Quarter 2012:4 – Westonaria LM

Westonaria LM						
	Area Size in m ²					Vacancy
	250	500	1 000	2 500	5 000	
Westonaria						
2013	n/a	n/a	n/a	n/a	n/a	n/a
2012	n/a	n/a	n/a	n/a	n/a	n/a
2011	n/a	n/a	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a	n/a	n/a

There are no monitored industrial nodes within the Westonaria local municipality.

The industrial rental rates of the four local municipalities monitored industrial nodes are graphically illustrated in the figure below.

Figure 9.6: Mean Prime Industrial Rentals – West Rand District



Source: Demacon ex, Rode Q1:2013

9.4.2 INDUSTRIAL STAND VALUES - 2013

STANDS ON THE WEST RAND SHOWING THE BEST GROWTH

In the fourth quarter of 2012, industrial stands on the East Rand (+13%) were able to show the best yearly growth. This was followed by the Central Witwatersrand (+4%) and Port Elizabeth (+1%) were stands showed marginal growth, In the Cape Peninsula, stand values remained at roughly their previous-year levels, while in Durban (-1%) a slight contraction in values was observed.

The general inability of nominal industrial rentals to outperform the growth in building cost means that the development of new industrial space remains an economically unviable option. This, by implication, means a weak demand for industrial land and would explain the poor growth in stand values.

In the fourth quarter of 2012, building costs are expected to have grown by 9%. This implies that it was only on the East Rand where stands were able to grow in *real* terms.

The following tables and figures illustrate time series data for the *Mean Market Value for Serviced and Level Industrial Stands Quarter 2012:4* for the monitored industrial nodes per local Municipality (within the West Rand District Municipality).

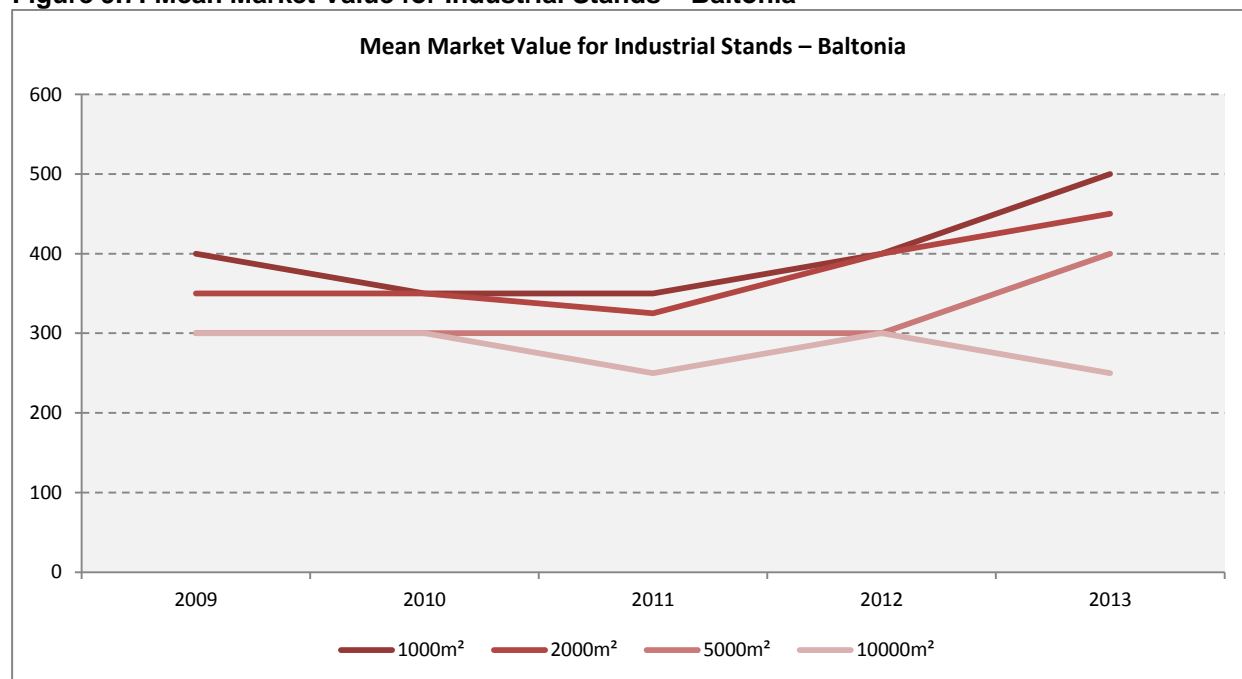
Table 9.6: Mean Market Value for Serviced and Level Industrial Stands – Mogale City

Mogale City					
	Area Size in m²				Vacancy Grade
	1 000	2 000	5 000	10 000	
Boltonia					
2013	500	450	400	250	0.0
2012	400	400	300	300	1.0
2011	350	325	300	250	2.0
2010	350	350	300	300	1.0
2009	400	350	300	300	6.9
Chamdor					
2013	400	400	400	250	1.0
2012	400	400	300	300	1.0
2011	350	333	300	283	1.0
2010	250	350	300	300	1.0
2009	350	300	300	300	-
Delporton					
2013	n/a	n/a	n/a	n/a	n/a
2012	n/a	n/a	n/a	n/a	n/a
2011	n/a	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a	n/a
Factoria					
2013	500	450	400	400	0.0
2012	400	400	300	300	0.0
2011	350	350	300	300	1.0
2010	350	350	300	-	1.0
2009	425	373	350	340	0.0
Muldersdrift					
2013	n/a	n/a	n/a	n/a	n/a
2012	n/a	n/a	n/a	n/a	n/a
2011	n/a	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a	n/a
Nooitgedacht					
2013	n/a	n/a	n/a	n/a	n/a
2012	n/a	n/a	n/a	n/a	n/a
2011	n/a	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a	n/a

*Fariaville – Vacant

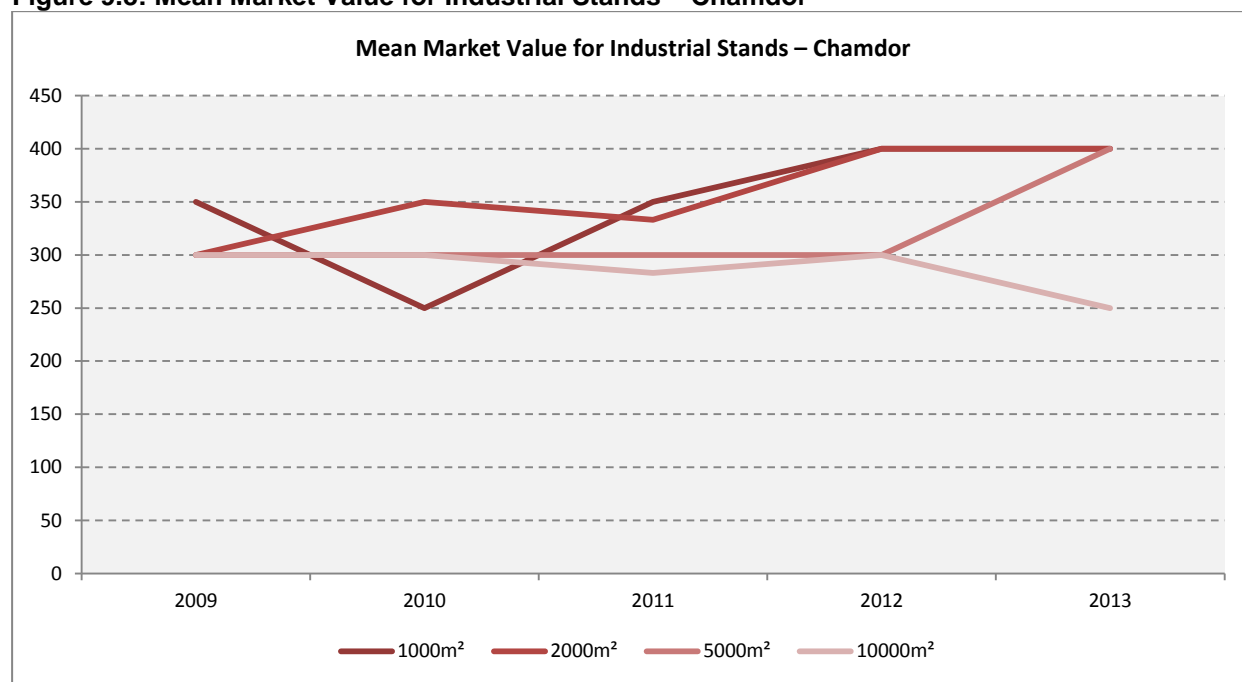
Within Mogale City local municipality, only three of the seven industrial nodes are monitored.

Figure 9.7: Mean Market Value for Industrial Stands – Baltonia



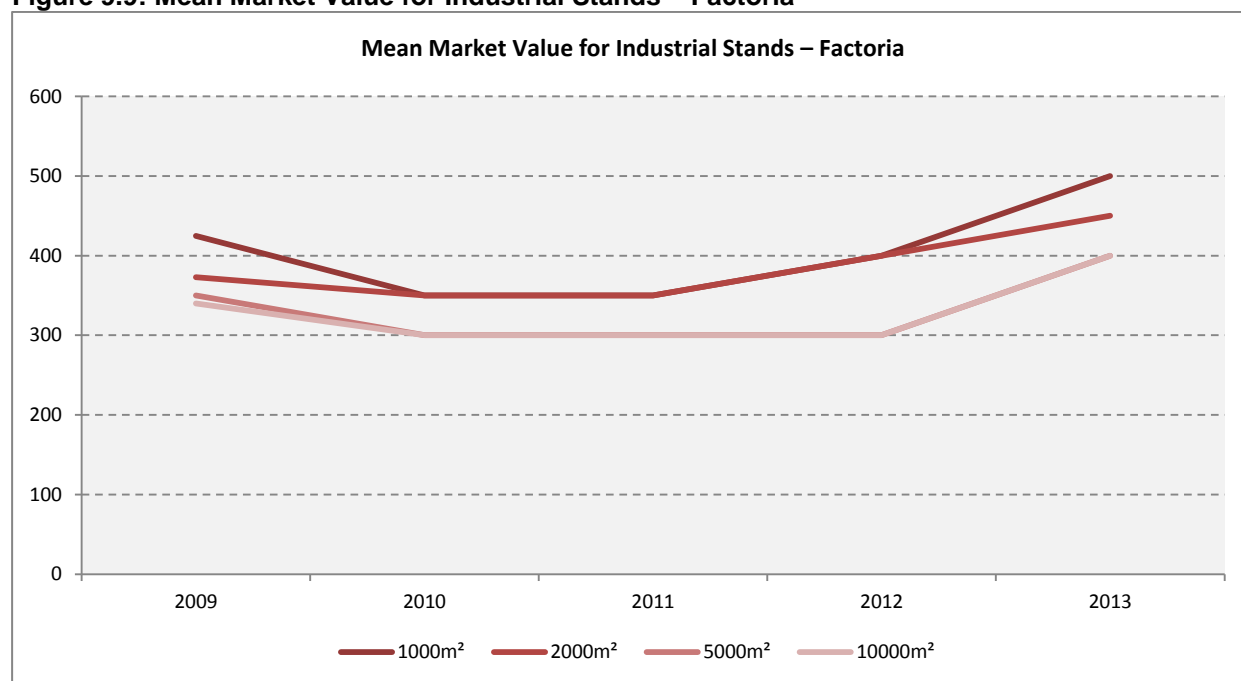
Source: Demacon ex, Rode Q1:2013

Figure 9.8: Mean Market Value for Industrial Stands – Chamdor



Source: Demacon ex, Rode Q1:2013

Figure 9.9: Mean Market Value for Industrial Stands – Factoria



Source: Demacon ex, Rode Q1:2013

Table 9.7: Mean Market Value for Serviced and Level Industrial Stands – Merafong City

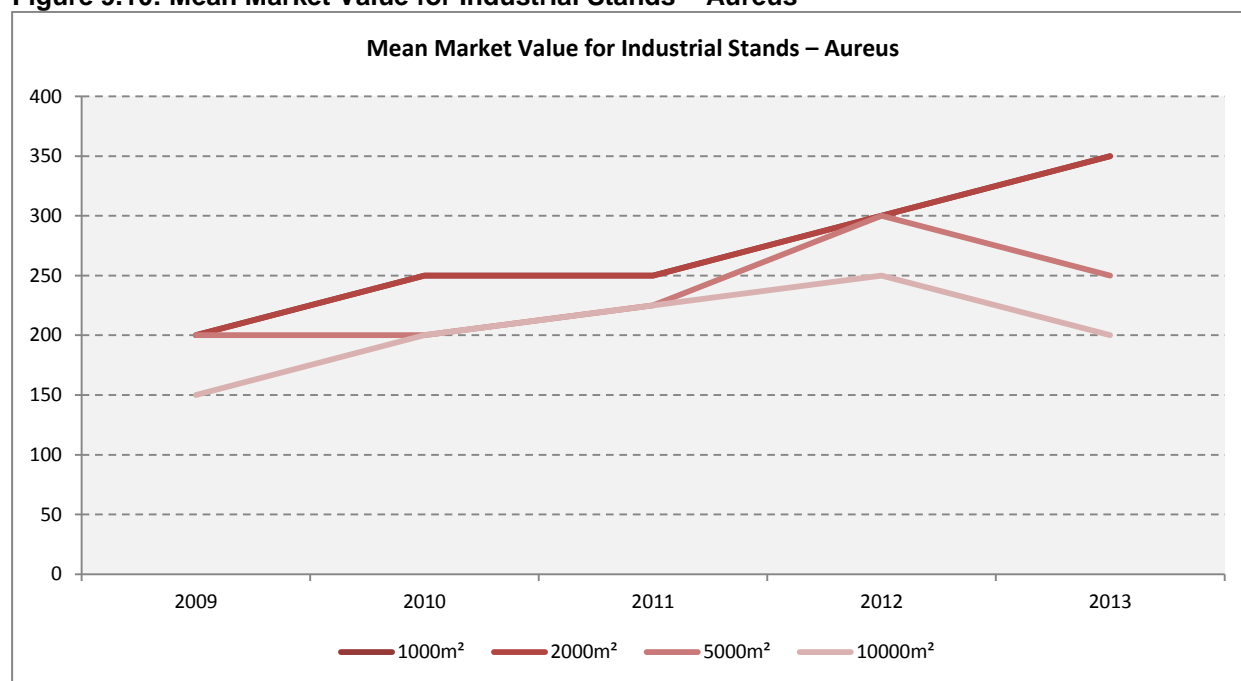
Merafong City LM					
	Area Size in m²				Vacancy Grade
	1 000	2 000	5 000	10 000	
Carletonville Extension 6					
2013	n/a	n/a	n/a	n/a	n/a
2012	n/a	n/a	n/a	n/a	n/a
2011	n/a	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a	n/a
Oberholzer					
2013	n/a	n/a	n/a	n/a	n/a
2012	n/a	n/a	n/a	n/a	n/a
2011	n/a	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a	n/a

There are no monitored industrial nodes within the Merafong City local municipality.

Table 9.8: Mean Market Value for Serviced and Level Industrial Stands – Randfontein

Randfontein LM					
	Area Size in m²				Vacancy Grade
	1 000	2 000	5 000	10 000	
Aureus					
2013	350	350	250	200	2.0
2012	300	300	300	250	3.0
2011	250	250	225	225	1.0
2010	250	250	200	200	1.0
2009	200	200	200	150	4.0

Figure 9.10: Mean Market Value for Industrial Stands – Aureus



Source: Demacon ex, Rode Q1:2013

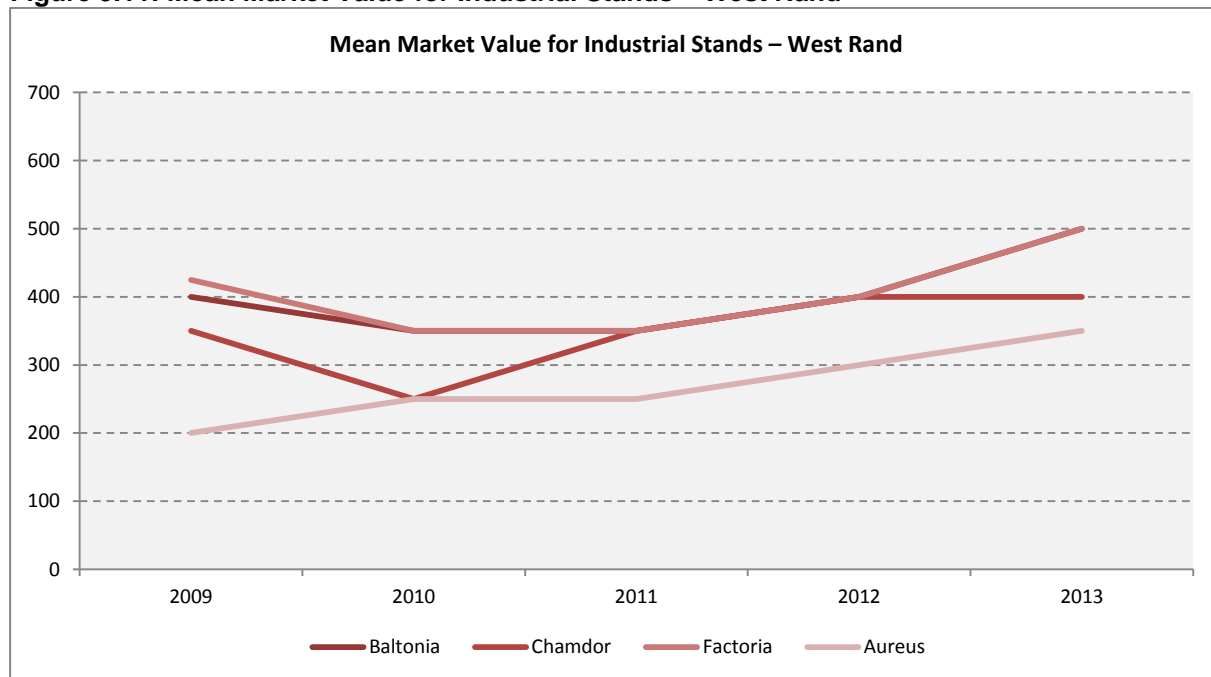
Table 9.9: Mean Market Value for Serviced and Level Industrial Stands – Westonaria

Westonaria LM					
	Area Size in m²				Vacancy Grade
	1 000	2 000	5 000	10 000	
Westonaria					
2013	n/a	n/a	n/a	n/a	n/a
2012	n/a	n/a	n/a	n/a	n/a
2011	n/a	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a	n/a

There are no monitored industrial nodes within the Westonaria local municipality.

The industrial stand values of the four local municipalities monitored industrial nodes are graphically illustrated in the figure below.

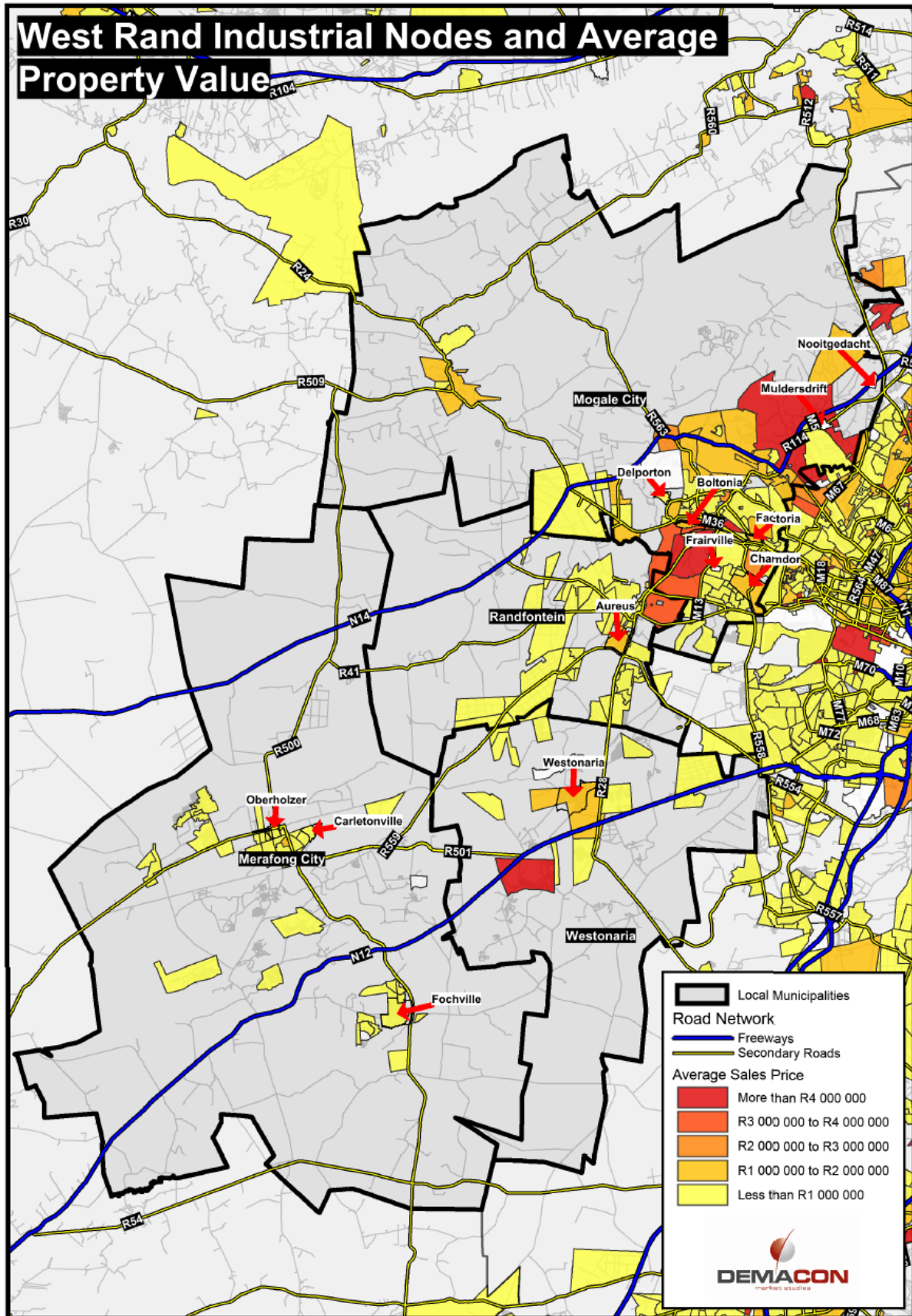
Figure 9.11: Mean Market Value for Industrial Stands – West Rand



Source: Demacon ex, Rode Q1:2013

In terms of the property pricing landscape and in accordance with the principles of supply and demand, (see map on overleaf) the darker shaded areas highlight areas of highest activity and by implication areas with greater market potential. As such it provides an indication of geographic areas with public sector investment is likely to have the greatest downstream multiplier and private investment leverage effect.

Map 9.1: West Rand Average Land Value



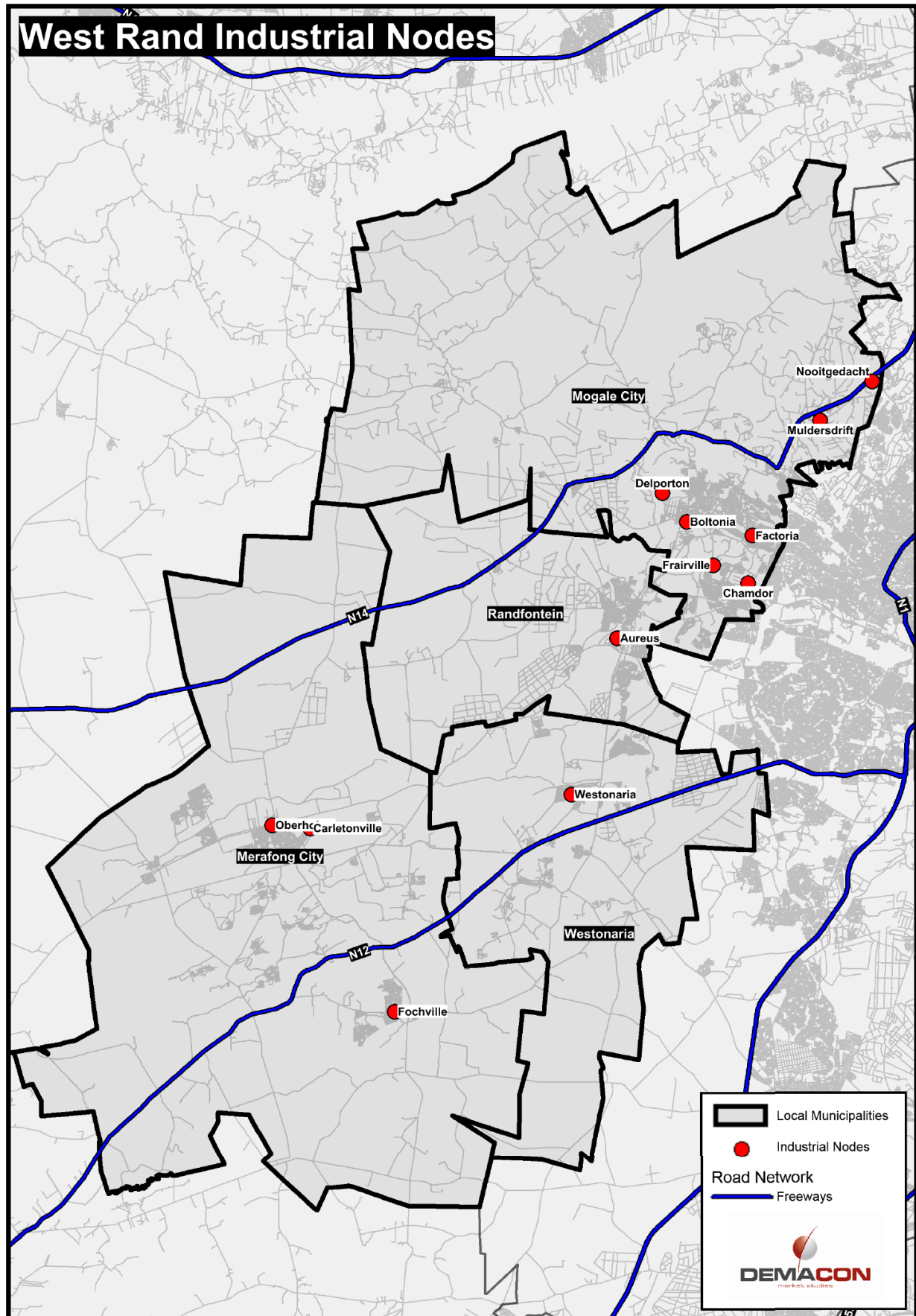
9.5 INDUSTRIAL NODES OF THE WEST RAND

There are eleven industrial precincts identified for the West Rand District Municipality within the four local municipalities. The industrial nodes per local municipality is as follows:

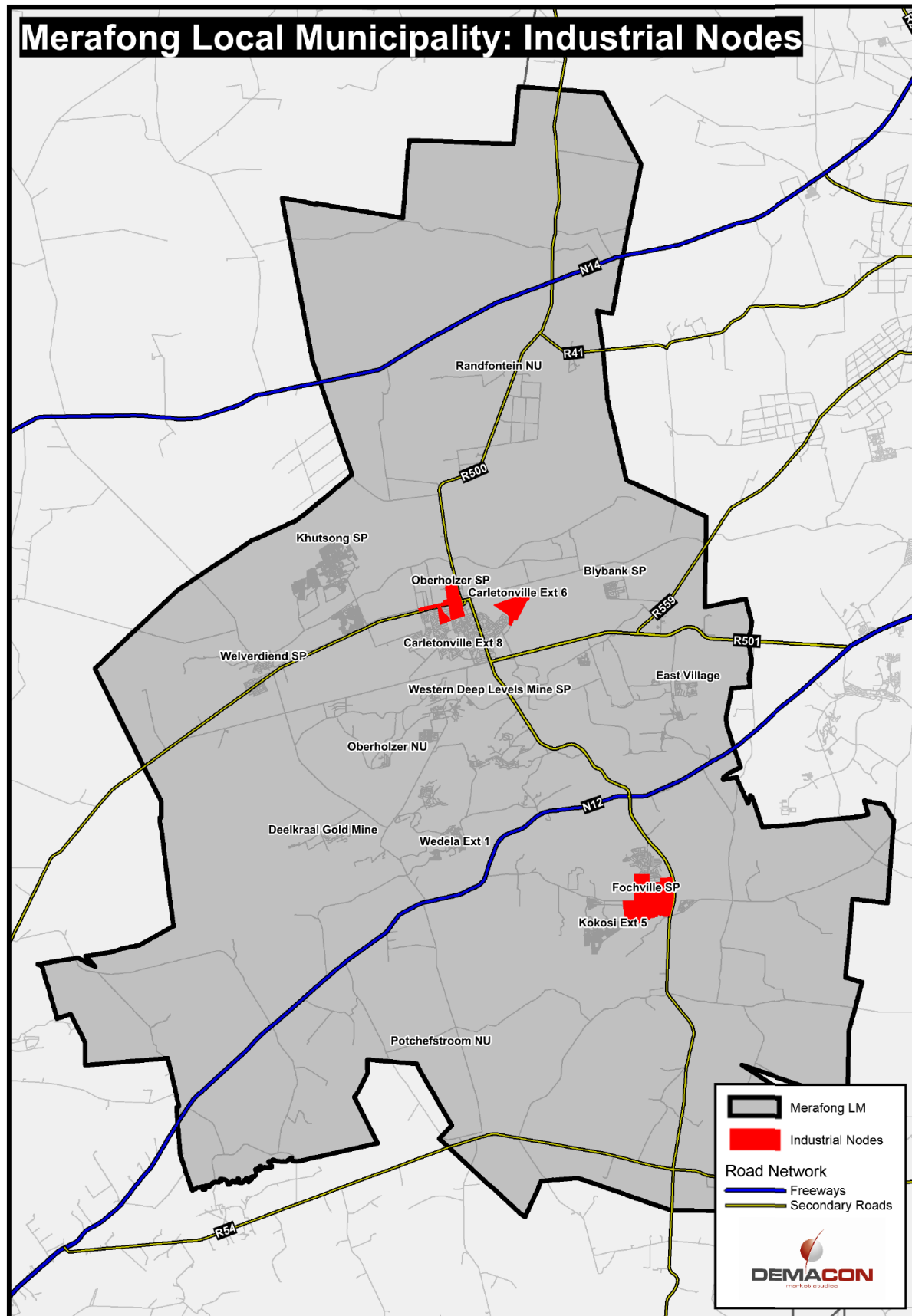
- ✓ Mogale City LM
 - Boltonia
 - Chamdor
 - Delporton
 - Factoria
 - Fariaville
 - Muldersdrift
 - Nooitgedacht
- ✓ Merafong City LM
 - Carletonville Extension 6
 - Oberholzer
 - Fochville
- ✓ Randfontein LM
 - Aureus
- ✓ Westonaria LM
 - Westonaria

The industrial precincts vary in size, character and function. Most of the industrial nodes are located in close proximity to mining activities within the West Rand.

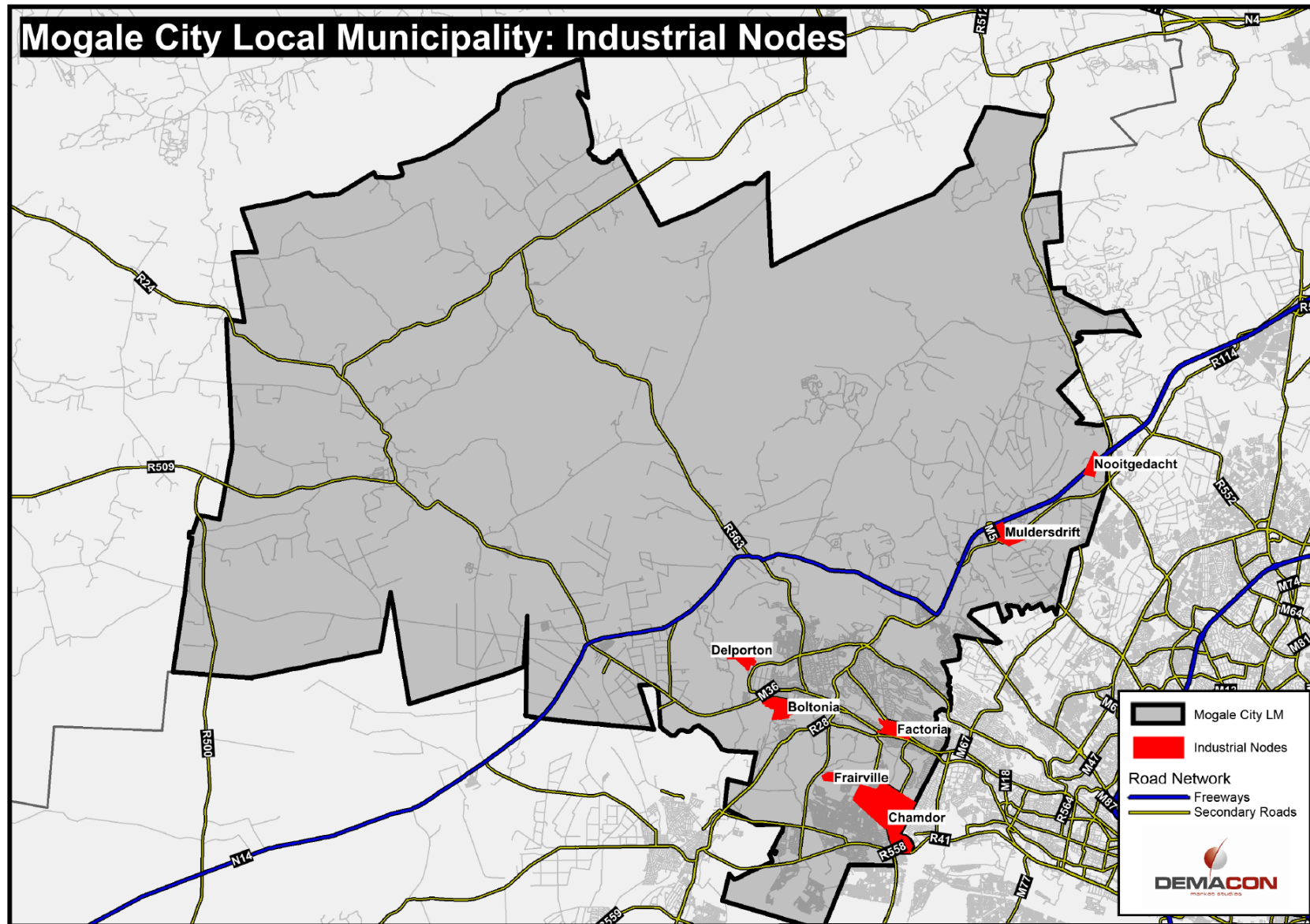
Map 9.1: Industrial Areas - West Rand District Municipality



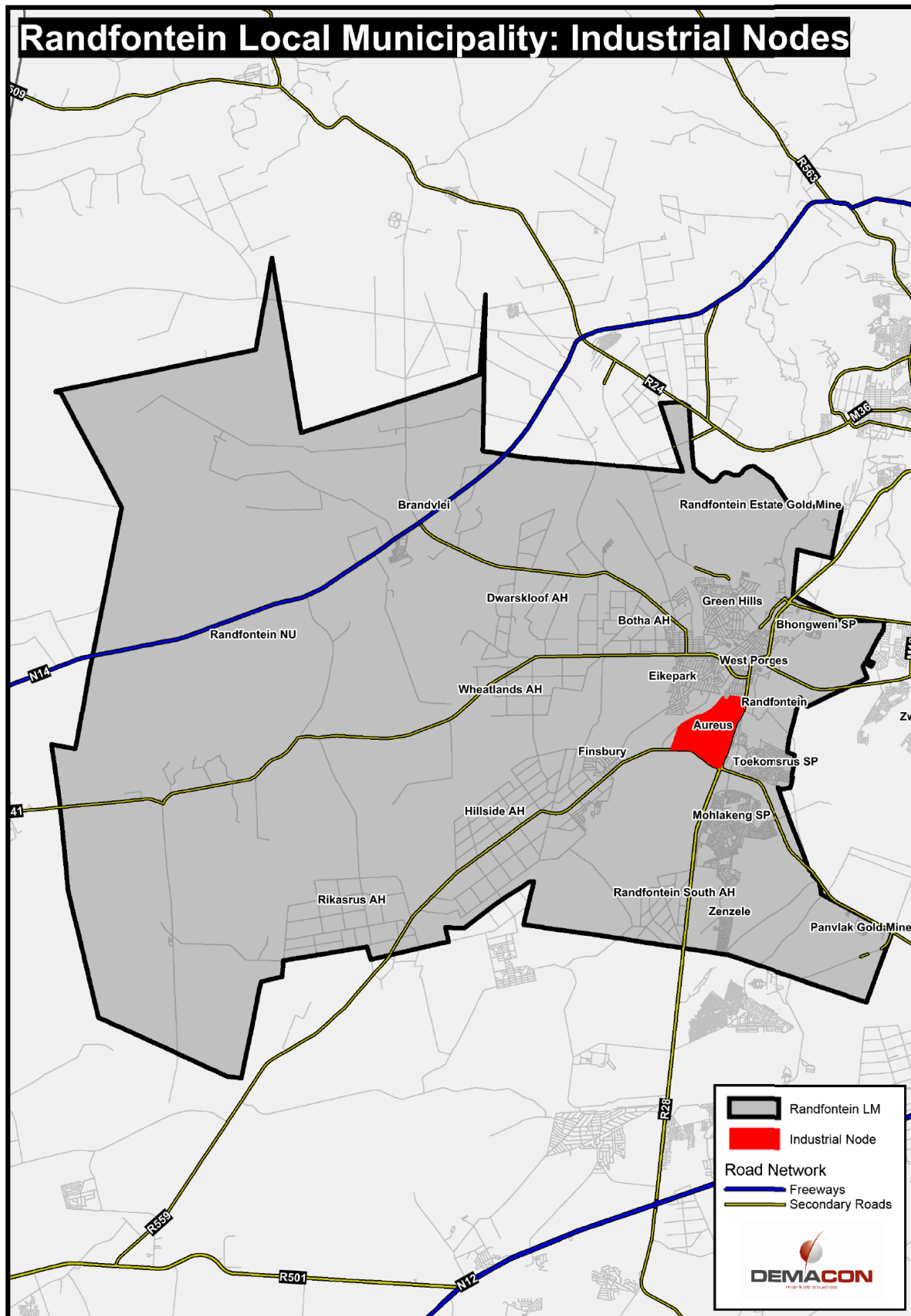
Map 9.2: Industrial Areas – Merafong City



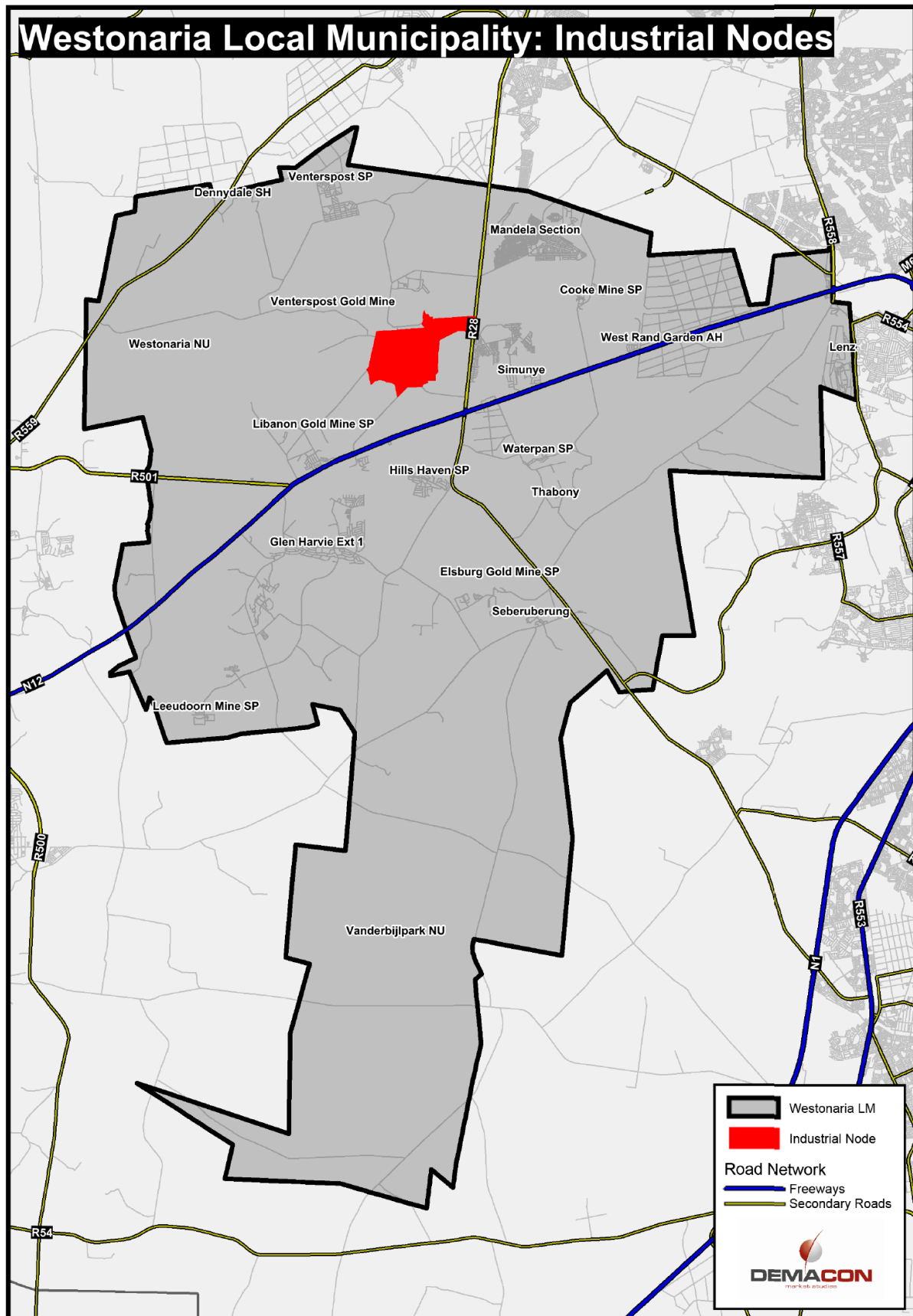
Map 9.3: Industrial Areas – Mogale City



Map 9.4: Industrial Areas – Randfontein

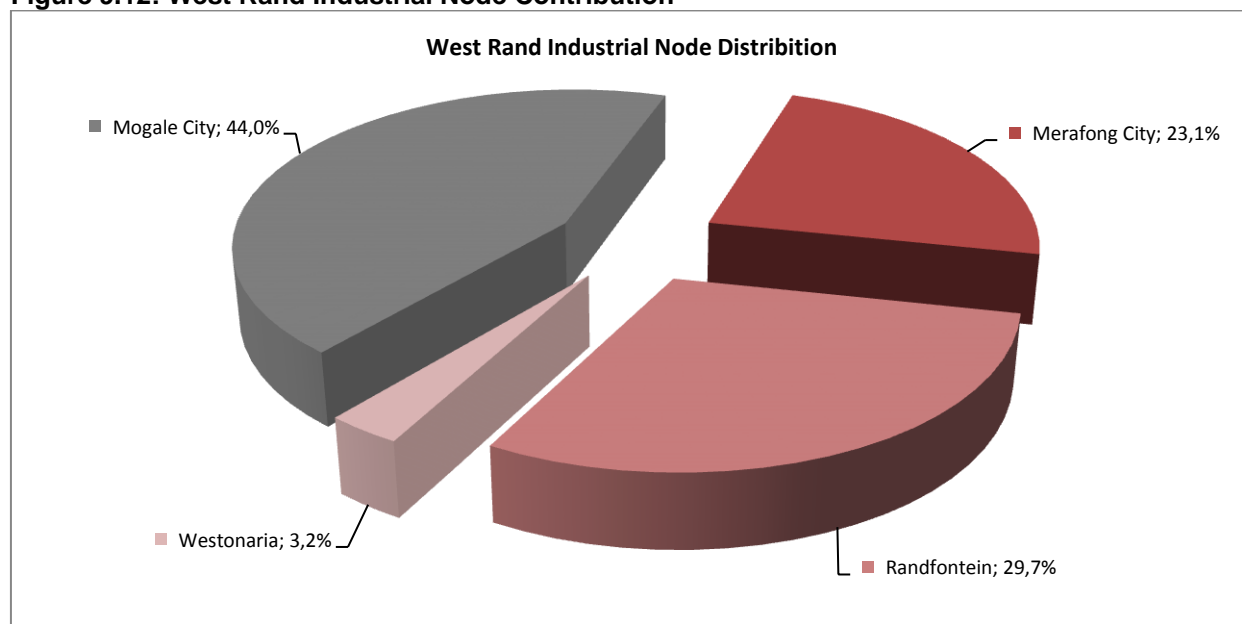


Map 9.5: Industrial Areas – Westonaria



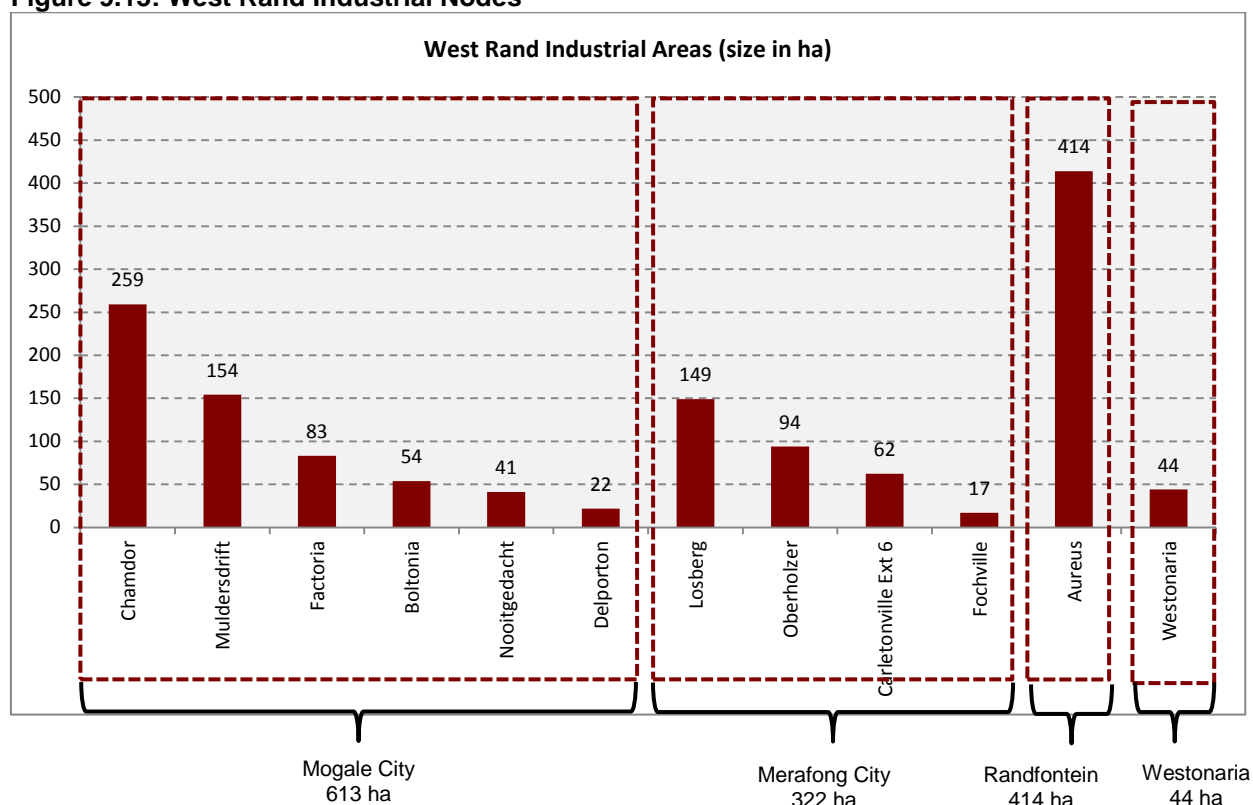
The following figure illustrates the industrial contribution of each of the four local municipalities.

Figure 9.12: West Rand Industrial Node Contribution



The eleven industrial nodes vary in size and function. The following figure illustrates the industrial nodes in terms of size and local municipality.

Figure 9.13: West Rand Industrial Nodes



The industrial nodes in the West Rand can be listed as following according to land area / size (ha).

- ✓ Aureus (414ha)
- ✓ Chamdor (259ha)
- ✓ Muldersdrift (154ha)
- ✓ Losberg (149ha)
- ✓ Oberholzer (94ha)
- ✓ Factoria (83)
- ✓ Carletonville Ext 6 (62ha)
- ✓ Boltonia (54ha)
- ✓ Westonaria (44ha)
- ✓ Nooitgedacht (41ha)
- ✓ Delporton (22ha)
- ✓ Fochville (17ha)
- ✓ *Fariaville 323ha – vacant*

A formal industrial survey was conducted during May/June 2013 to establish the current land use and SIC classification of all the industrial nodes within the West Rand. The following figures graphically illustrate the findings.

Figure 9.14: West Rand Industrial – Land Use (ha contribution)

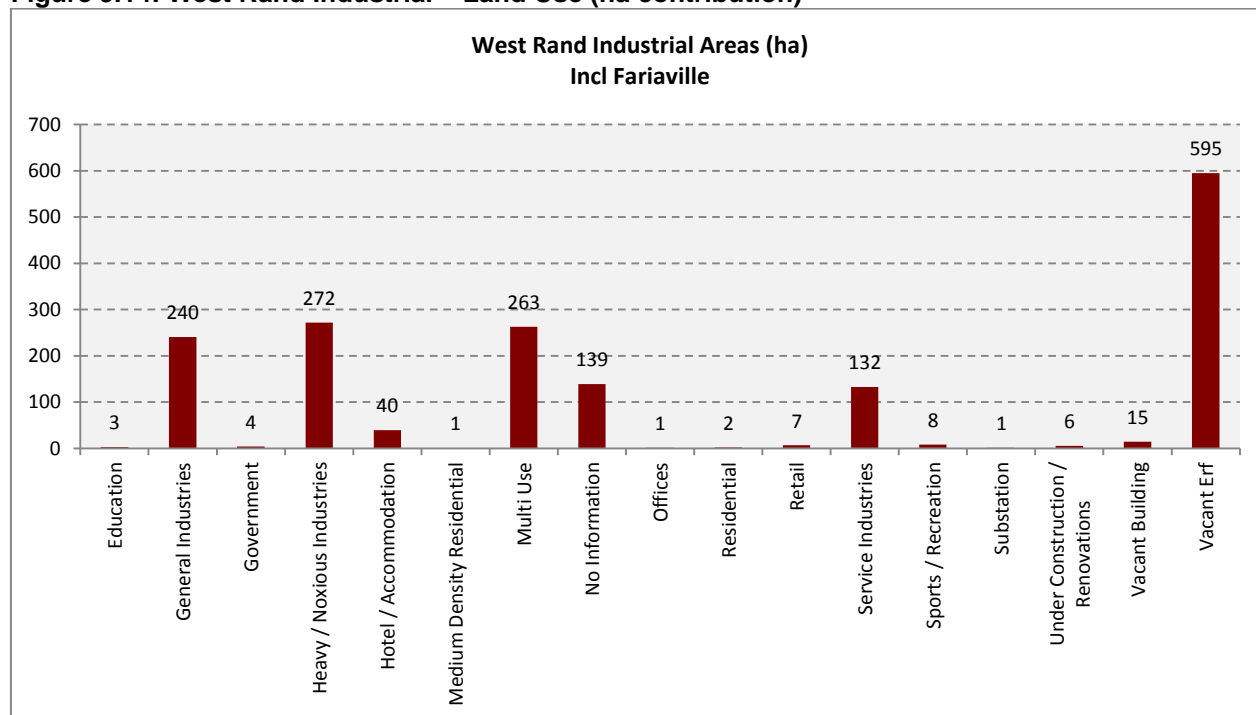
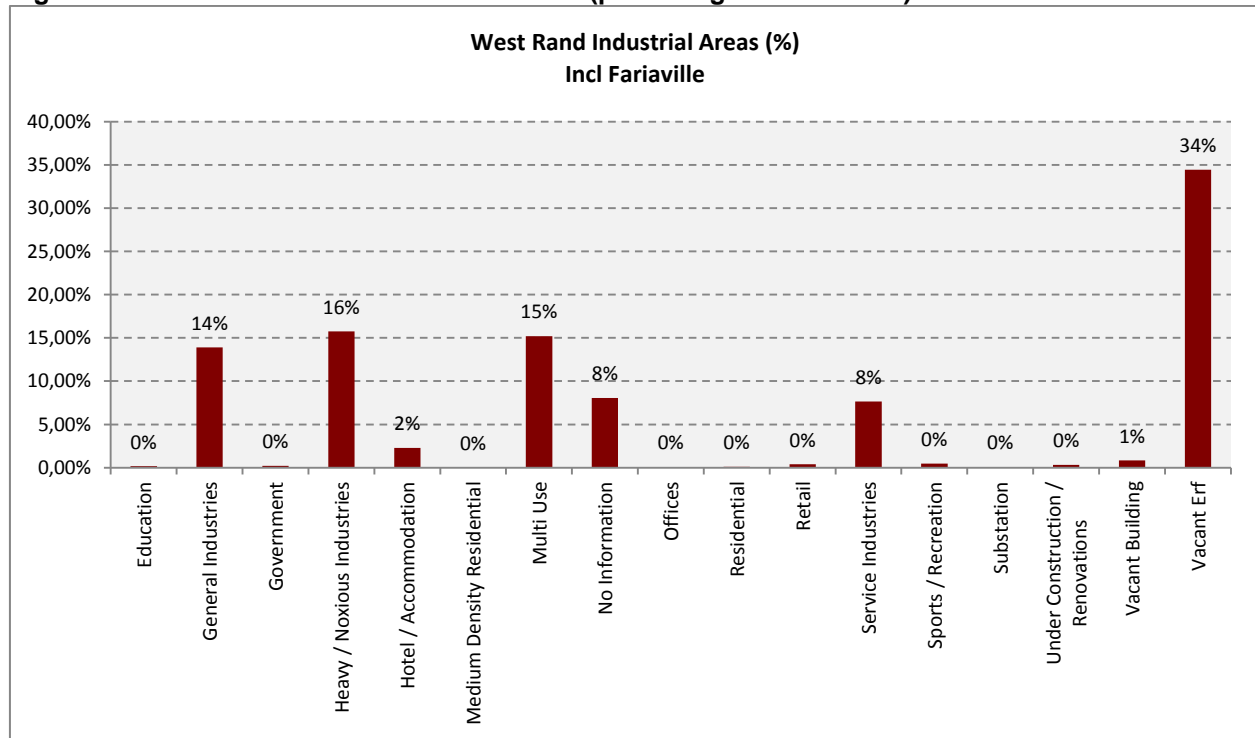


Figure 9.15: West Rand Industrial – Land Use (percentage contribution)



Findings (Figure 9.14 and Figure 9.15):

- ✓ From the survey it is clear that a large portion (595ha / 34%) of the industrial land within the West Rand is currently vacant. *It should be noted Fariaville (414 ha) is totally undeveloped and may skew the data.*
- ✓ Most of the industrial activities within the West Rand is considered as heavy / noxious industries (272 ha / 16%).
- ✓ 263 ha (15%) is utilized as multi-use sites (which indicate a single site with more than one use on the site).
- ✓ General industries, representing *Warehouse / Storage Buildings / Logistics, Transport / Vehicle Storage Depots / Containers, Construction Industry, General Manufacturing, General Engineering, General Equipment, Food / Beverages, Textiles / Leather, Mining Industry* consist of 240 ha (14%) of the West Rand.

The following figures indicate the industrial activities within the West Rand according to the SIC classification standards.

Figure 9.16: West Rand Industrial – SIC Classification (ha contribution)

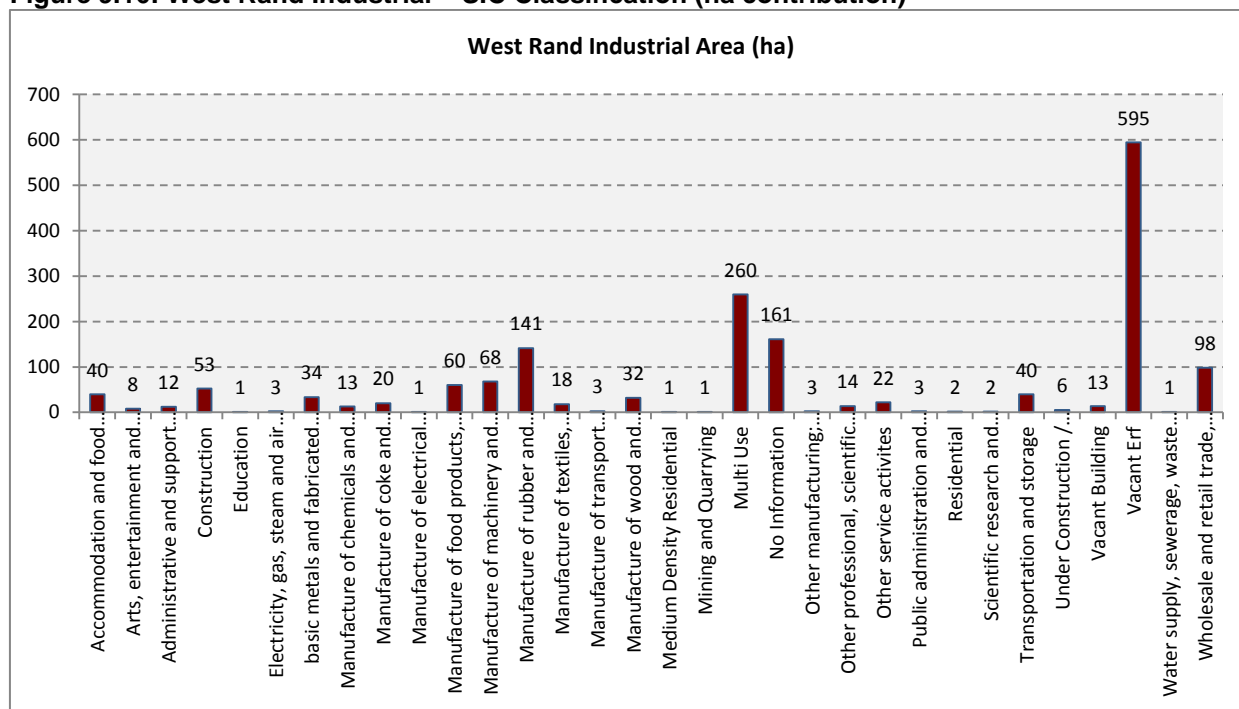
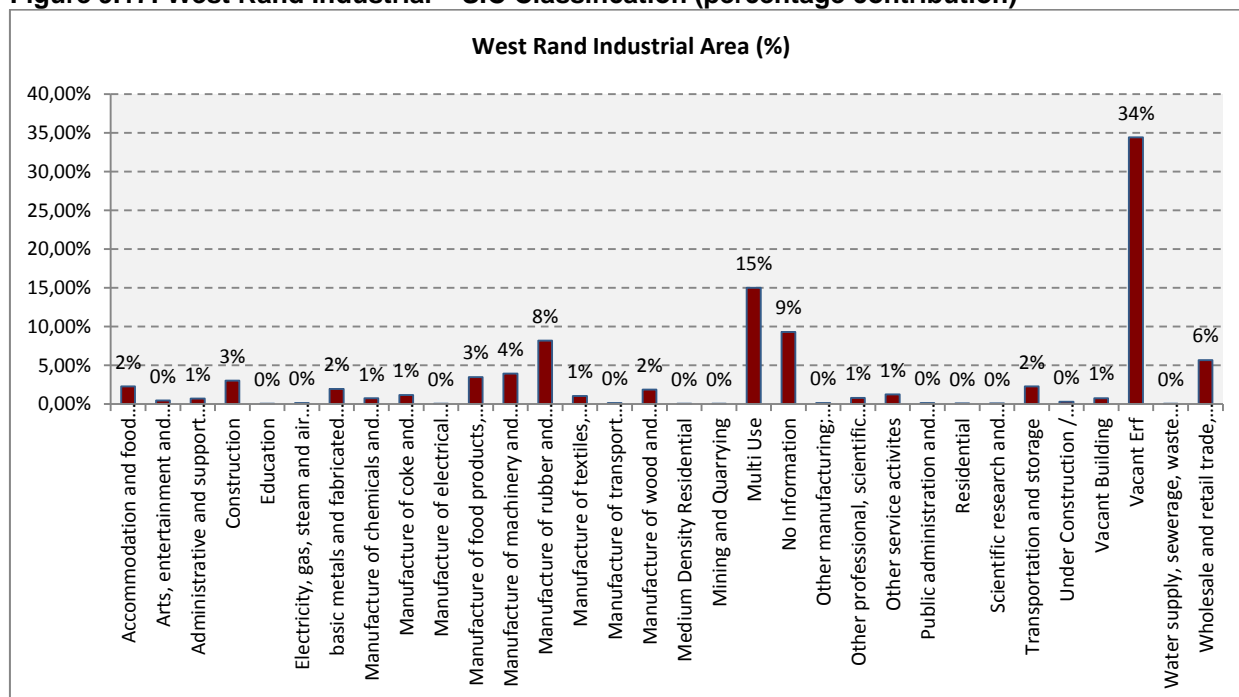


Figure 9.17: West Rand Industrial – SIC Classification (percentage contribution)



Findings (Figure 9.16 and Figure 9.17):

- ✓ As indicated above, a large portion (595 ha / 34%) of the industrial land within the West Rand is currently vacant. *It should be noted Fariaville (414 ha) is totally undeveloped and may skew the data.*
- ✓ A large section of industrial land (260 ha / 15%) is utilized as multi-use sites (which indicate a single site with more than one use on the site).
- ✓ 161 ha (9%) of stand no information could be obtained, and 141 ha (8%) is utilized for *Manufacture of rubber and plastic products, and other non-metallic mineral products* and 98ha (6%) of stand are utilized for *Wholesale and retail trade, repair of motor vehicles and motorcycles.*

9.6 SYNTHESIS

The industrial operations within the West Rand consist of 12 industrial nodes located within the respective local municipalities. Mogale City has the most industrial land, followed by Randfontein, Merafong City and lastly Westonaria. Most of the industrial nodes are stable with some vacant land available for infill or redevelopment. Some nodes are still underdeveloped, whilst other has related expansion potential. Approximate one third of the total industrial land within the West rand is still vacant.

CHAPTER 10: SECTOR COMPETITIVENESS ANALYSIS

10.1 INTRODUCTION

Competitive Advantage Analysis (CAA) is an assessment of the structure and performance of the economy of an area, to identify local strengths (“competitive advantages”) and potential for economic development. Actually, a full competitive advantage analysis would include an examination of local infrastructure, markets, labour force, amenities, access to transportation routes, etc. The approach outlined here doesn’t go that far. Instead, it focuses on examining local industries/sectors to identify leading and lagging sectors and their prospects for employment growth.

10.2 LOCATION QUOTIENT

A location quotient identifies the level of specialisation in a geographic region. In simple terms it measures the concentration of certain industry sectors in the region relative to the aggregate / reference economy¹.

$LQ = (\text{Local Employment in Industry} / \text{Total Local Employment}) / (\text{Regional Employment in Industry} / \text{Total Regional Employment})^2$

The interpretation of location quotients is not particularly complex; we are simply measuring employment concentration in the region. Industry groups that dominate in the region will have higher location quotients and ones that are relatively scarce will have lower location quotients.

Table 10.1 shows the range of possible location quotients arising from the formula and their suggested interpretation. Note that a low (or high) location quotient doesn’t necessarily mean the industry group is small (or large), unimportant (or important) in the region, just that it is less so (or more so) than in the reference economy as a whole.

Table 10.1: Interpretation of Location Quotient

Location Quotient	Label	Interpretation
Less than 0.75	Low	Local needs are not being met and goods and services are imported
0.75 to 1.24	Medium	Most local needs are being met by the sector. The region will probably be both importing and exporting goods and services in this sector.
1.25 to 4.99	High	Sector is serving the needs that extend beyond the boundaries of the municipality - likely to export goods and services
More than 5.00	Very High	High level of local dependence on the sector – typically a single industry community.

Source: Sask Trends Monitor, March 2007

Table 10.2 indicates the Location Quotient for the local economy with reference to the provincial and district economy for 2011.

¹ Source: www.citiesalliance.org/doc/resources/led

² Source: Florida State University Department of Urban and Regional Planning. Planning Methods III: Forecasting

Table 10.2: Location Quotients, 2011

	West Rand District to Gauteng Province		Merafong City Local to West Rand District		Mogale City Local to West Rand District		Randfontein Local to West Rand District		Westonaria Local to West Rand District	
	LQ	Classification	LQ	Classification	LQ	Classification	LQ	Classification	LQ	Classification
PA: Agriculture, forestry and fishing [SIC: 1]	2,10	High	3,90	High	1,84	High	1,37	High	0,85	Medium
PB: Mining and quarrying [SIC: 2]	6,88	Very high	14,51	Very high	1,37	High	2,89	High	27,67	Very high
SC: Manufacturing [SIC: 3]	0,82	Medium	0,24	Low	1,02	Medium	1,12	Medium	0,42	Low
SC03: Food, beverages and tobacco [SIC: 301-306]	1,41	High	0,26	Low	1,44	High	3,24	High	0,40	Low
SC04: Textiles, clothing and leather goods [SIC: 311-317]	1,07	Medium	0,29	Low	0,96	Medium	2,49	High	0,78	Medium
SC05: Wood, paper, publishing and printing [SIC: 321-326]	0,57	Low	0,19	Low	0,76	Medium	0,65	Low	0,26	Low
SC06: Petroleum products, chemicals, rubber and plastic [SIC: 331-338]	0,69	Low	0,15	Low	0,99	Medium	0,69	Low	0,27	Low
SC07: Other non-metal mineral products [SIC: 341-342]	1,19	Medium	0,70	Low	1,29	High	1,16	Medium	1,84	High
SC08: Metals, metal products, machinery and equipment [SIC: 351-359]	0,83	Medium	0,30	Low	1,07	Medium	0,94	Medium	0,47	Low
SC09: Electrical machinery and apparatus [SIC: 361-363]	0,59	Low	0,25	Low	0,72	Low	0,65	Low	0,51	Low
SC10: Radio, TV, instruments, watches and clocks [SIC: 371-376]	0,54	Low	0,09	Low	0,81	Medium	0,50	Low	0,18	Low
SC11: Transport equipment [SIC: 381-387]	0,50	Low	0,19	Low	0,68	Low	0,48	Low	0,25	Low
SC12: Furniture and other manufacturing [SIC: 391-392]	0,81	Medium	0,27	Low	1,07	Medium	0,91	Medium	0,42	Low
SD: Electricity, gas and water [SIC: 4]	0,92	Medium	0,58	Low	1,18	Medium	0,73	Low	0,60	Low
SD13: Electricity [SIC: 41]	0,87	Medium	0,48	Low	1,13	Medium	0,82	Medium	0,43	Low
SD14: Water [SIC: 42]	1,17	Medium	1,10	Medium	1,45	High	0,30	Low	1,46	High
SE: Construction [SIC: 5]	0,96	Medium	0,59	Low	1,16	Medium	0,94	Medium	0,67	Low
TF: Wholesale and retail trade, catering and accommodation [SIC: 6]	0,95	Medium	0,86	Medium	1,11	Medium	0,82	Medium	0,49	Low
TF16: Wholesale and retail trade [SIC: 61-62]	0,95	Medium	0,89	Medium	1,10	Medium	0,83	Medium	0,51	Low
TF17: Catering and accommodation services [SIC: 63]	0,94	Medium	0,54	Low	1,32	High	0,73	Low	0,21	Low
TG: Transport, storage and communication [SIC: 7]	0,86	Medium	0,66	Low	1,00	Medium	0,88	Medium	0,53	Low
TG18: Transport and storage [SIC: 71]	0,82	Medium	0,86	Medium	0,79	Medium	0,86	Medium	0,81	Medium
TG19: Communication [SIC: 72]	0,91	Medium	0,46	Low	1,21	Medium	0,90	Medium	0,27	Low
TH: Finance, insurance, real estate and business services [SIC: 8]	0,71	Low	0,55	Low	0,82	Medium	0,80	Medium	0,26	Low
TH20: Finance and insurance [SIC: 81-82]	0,68	Low	0,63	Low	0,73	Low	0,84	Medium	0,24	Low
TH21: Business services [SIC: 83]	0,73	Low	0,50	Low	0,88	Medium	0,78	Medium	0,28	Low
TI: Community, social and personal services [SIC: 92, 95-99, 0]	1,31	Very high	2,60	High	1,00	Medium	0,95	Medium	0,75	Low
TJ: General government [SIC: 91, 94]	0,96	Medium	0,65	Low	1,03	Medium	1,24	High	0,76	Medium

Source: Demacon, 2013

West Rand District to Gauteng Province

- ✓ Main sectors classified as **very high**: Mining and Quarrying and Community, social and personal services. The following sub-sectors classified as **very high**: None
- ✓ Main sectors classified as **high**: Agriculture, forestry and fishing. The following sub-sectors classified as **high**: Food, beverages and tobacco.
- ✓ Main sectors classified as **medium**: Manufacturing, Construction, Wholesale and retail trade, catering and accommodation, Utilities, Transport, storage and communication and General government. The following sub-sectors classified as **medium**: Textiles, clothing and leather goods, Other non-metal mineral products, Metals, metal products, machinery and equipment, Furniture and other manufacturing, Electricity, Water, Wholesale and retail trade, Catering and accommodation services, Transport and Storage and Communication.
- ✓ Main sectors classified as **low**: Finance, insurance, real estate and business services. The following sub-sectors classified as **low**: Wood, paper, publishing and printing, Petroleum products, chemicals, rubber and plastic, Electrical machinery and apparatus, Radio, TV, instruments, watches and clocks, Transport equipment, Finance and insurance and Business services.

Merafong City Local to West Rand District

- ✓ Main sectors classified as **very high**: Mining and Quarrying. The following sub-sectors classified as **very high**: None
- ✓ Main sectors classified as **high**: Agriculture, forestry and fishing and Community, social and personal services. The following sub-sectors classified as **high**: None
- ✓ Main sectors classified as **medium**: Wholesale and retail trade, catering and accommodation. The following sub-sectors classified as **medium**: Water, Wholesale and retail trade and Transport and Storage.
- ✓ Main sectors classified as **low**: Manufacturing, Utilities, Construction, Transport, storage and communication, Finance, insurance, real estate and business services and General government. The following sub-sectors classified as **low**: Food, beverages and tobacco, Textiles, clothing and leather goods, Wood, paper, publishing and printing, Petroleum products, chemicals, rubber and plastic, Other non-metal mineral products, Metals, metal products, machinery and equipment, Electrical machinery and apparatus, Radio, TV, instruments, watches and clocks, Transport equipment, Furniture and other manufacturing, Electricity, Catering and accommodation services, Communication, Finance and insurance and Business services.

Mogale City Local to West Rand District

- ✓ Main sectors classified as **very high**: None. The following sub-sectors classified as **very high**: None.
- ✓ Main sectors classified as **high**: Agriculture, forestry and fishing and Mining and quarrying. The following sub-sectors classified as **high**: Food, beverages and tobacco, Other non-metal mineral products, Water and Catering and accommodation services.
- ✓ Main sectors classified as **medium**: Manufacturing, Utilities, Construction, Wholesale and retail trade, catering and accommodation, Transport, storage and communication, Finance, insurance, real estate and business services, Community, social and personal services and General government. The following sub-sectors classified as **medium**: Textiles, clothing and leather goods, Wood, paper, publishing and printing, Petroleum products, chemicals, rubber and plastic, Metals, metal products, machinery and equipment, Radio, TV, instruments, watches and clocks, Furniture and other manufacturing, Electricity, Wholesale and retail trade, Transport and Storage, Communication and Business services.

- ✓ Main sectors classified as **low**: None. The following sub-sectors classified as **low**: Electrical machinery and apparatus, Transport equipment and Finance and insurance.

Randfontein Local to West Rand District

- ✓ Main sectors classified as **very high**: None. The following sub-sectors classified as **very high**: None.
- ✓ Main sectors classified as **high**: Agriculture, forestry and fishing, Mining and quarrying and General government. The following sub-sectors classified as **high**: Food, beverages and tobacco and Textiles, clothing and leather goods.
- ✓ Main sectors classified as **medium**: Manufacturing, Construction, Wholesale and retail trade, catering and accommodation, Transport, storage and communication, Finance, insurance, real estate and business services and Community, social and personal services.
- ✓ The following sub-sectors classified as **medium**: Other non-metal mineral products, Metals, metal products, machinery and equipment, Furniture and other manufacturing, Electricity, Wholesale and retail trade, Transport and Storage, Communication, Finance and insurance and Business services.
- ✓ Main sectors classified as **low**: Utilities. The following sub-sectors classified as **low**: Wood, paper, publishing and printing, Petroleum products, chemicals, rubber and plastic, Electrical machinery and apparatus, Radio, TV, instruments, watches and clocks, Transport equipment, Water, and Catering and accommodation services.

Westonaria Local to West Rand District

- ✓ Main sectors classified as **very high**: Mining and quarrying. The following sub-sectors classified as **very high**: None.
- ✓ Main sectors classified as **high**: None. The following sub-sectors classified as **high**: Other non-metal mineral products and Water.
- ✓ Main sectors classified as **medium**: Agriculture, forestry and fishing and General government. The following sub-sectors classified as **medium**: Textiles, clothing and leather goods and Transport and Storage.
- ✓ Main sectors classified as **low**: Manufacturing, Utilities, Construction, Wholesale and retail trade, catering and accommodation, Transport, storage and communication, Finance, insurance, real estate and business services and Community, social and personal services. The following sub-sectors classified as **low**: Food, beverages and tobacco, Wood, paper, publishing and printing, Petroleum products, chemicals, rubber and plastic, Metals, metal products, machinery and equipment, Electrical machinery and apparatus, Radio, TV, instruments, watches and clocks, Transport equipment, Furniture and other manufacturing, Electricity, Wholesale and retail trade, Catering and accommodation services, Communication, Finance and insurance and Business services.

10.3 SHIFT-SHARE ANALYSIS

Shift-Share analysis is used to account for the competitiveness of a region's industries and to analyse the local base. The analysis calculates how much of the employment growth experienced by a local economy in a specific time period can be accounted for by³:

- ✓ The economy's mix of sectors – because different sectors grow at different rates
- ✓ District growth rate – because a certain similarity between the district and local employment growth is a reasonable expectation

- ✓ Local factors – because a local economy may possess a competitive advantage in certain sectors. If a city's employment in a sector is growing at a faster rate than the district economy's employment growth in that sector it would suggest that the local economy has a competitive advantage in that sector.

The shift-share analysis decomposes district / local industry employment change into three components⁴:

- ✓ **Provincial / District Growth Share** – refers to district / local job growth that is attributed to district economic growth.

$$DGS = \text{Industry Employment} \times \text{Provincial / District Average Growth Rate of Total Employment}$$

$$\text{Growth} = (\text{employment in 2011} - \text{employment in 2006}) / \text{employment in 2006}$$

1. **Industrial Mix Share** – reflects the differences in industry mix between the local, district and provincial levels. The mix-factor examines how provincial / district growth or decline of a particular industry translates into local growth or decline of that industry.

$$IMS = \text{Local Industry Employment} \times (\text{provincial / District Industry Growth Rate} - \text{Provincial / District Average Growth Rate})$$

2. **Local Share** – describes the extent to which unique local factors relate to district industrial employment growth or decline. The local component aids in identifying a local area's economic strengths and represents how a district's competitive position can contribute to district job growth.

$$LS = \text{Local Industry Employment} \times (\text{District / Local Industry Growth Rate} - \text{Provincial / District Industry Growth Rate})$$

$$\text{Total Employment Change} = DGS + IMS + LS.$$

Table 10.3 summarises the findings of the shift share analysis. .

Table 10.3: Shift Share Analysis – District / Local Economy versus Provincial / District Economy, 2006 to 2011

	District / Local Economy Employment in 2006	Shares of Employment Change				District / Local Employment in 2011
		Provincial / District Growth Share	Industry Mix Share	District / Local Share	Total	
West Rand District Economy	29 452	4 926	(1 487)	(1 593)	1 846	21 539
Merafong City Local Economy	6 794	1 136	(637)	(1 011)	(511)	6 282
Mogale City Local Economy	10 672	2 287	(80)	536	2 743	16 415
Randfontein Local Economy	5 138	859	(124)	(256)	479	5 617
Westonaria Local Economy	3 848	644	(646)	(863)	(865)	2 983

Source: Demacon, 2013

⁴ Source: http://cecd.aers.psu.edu/using_employment_data_to_better.htm

West Rand District Economy

- ✓ **District Growth Share** – If the district economy was identical to the provincial economy then the district economy should have increased by 4 926 jobs between 2006 and 2011. However, it is evident that the district economy decreased with 1 593 jobs. This suggests that the district economy is performing weaker than the provincial economy.
- ✓ **Industry Mix Share** - The overall industrial growth component of (1 487) means that the district economy has 1 487 less jobs than it would have if its structure were identical to the provincial economy.
- ✓ **Local Share** - According to the district share component the decrease of 1 593 jobs can be attributed to its competitive position.

Merafong City Local Economy

- ✓ **District Growth Share** – If the local economy was identical to the district economy then the local economy should have increased by 1 136 jobs between 2006 and 2011. However, it is evident that the local economy decreased with 1 011 jobs. This suggests that the local economy is performing weaker than the district economy.
- ✓ **Industry Mix Share** - The overall industrial growth component of (637) means that the local economy has 637 less jobs than it would have if its structure were identical to the district economy.
- ✓ **Local Share** - According to the local share component the decrease of 1 011 jobs can be attributed to its competitive position.

Mogale City Local Economy

- ✓ **District Growth Share** – If the local economy was identical to the district economy then the local economy should have increased by 2 287 jobs between 2006 and 2011. However, it is evident that the local economy increased with 536 jobs. This suggests that the local economy is performing stronger than the district economy.
- ✓ **Industry Mix Share** - The overall industrial growth component of (80) means that the local economy has 80 less jobs than it would have if its structure were identical to the district economy.
- ✓ **Local Share** - According to the local share component the increase of 536 jobs can be attributed to its competitive position.

Randfontein Local Economy

- ✓ **District Growth Share** – If the local economy was identical to the district economy then the local economy should have increased by 859 jobs between 2006 and 2011. However, it is evident that the local economy decreased with 256 jobs. This suggests that the local economy is performing weaker than the district economy.
- ✓ **Industry Mix Share** - The overall industrial growth component of (124) means that the local economy has 124 less jobs than it would have if its structure were identical to the district economy.
- ✓ **Local Share** - According to the local share component the decrease of 256 jobs can be attributed to its competitive position.

Westonaria Local Economy

- ✓ **District Growth Share** – If the local economy was identical to the district economy then the local economy should have increased by 644 jobs between 2006 and 2011. However, it is evident that the local economy decreased with 863 jobs. This suggests that the local economy is performing weaker than the district economy.
- ✓ **Industry Mix Share** - The overall industrial growth component of (646) means that the local economy has 646 less jobs than it would have if its structure were identical to the district economy.
- ✓ **Local Share** - According to the local share component the decrease of 863 jobs can be attributed to its competitive position.

10.4 ECONOMIC BASE ANALYSIS

Economic base analysis is designed to analyse the broad economic structure of the district / local economy. It does this by dividing the economy into two sectors:

- ✓ **Basic or export sectors** (which includes all output – goods and services – sold outside the borders of the district / local economy).
- ✓ **Non-basic sectors** (which includes all output that is sold within the district / local economy).

A district / local region's export industries are its economic foundation, and all other industries thrive by servicing the export industries and one another. A change in the basic sector will automatically lead to a change in the same direction in the non-basic sector. The ratio of non-basic to basic activity is reasonably stable over the long term.

Overall, if a region can increase the level of basic employment, it can increase total employment by that amount times the multiplier⁵.

Basic Multiplier = Change in Total Employment/Change in Basic Employment

Change in Total Employment = Change in Basic Employment x the Basic Multiplier.

Another of methods can be utilised to estimate the economic base of the area:

- ✓ Judgemental Approach
- ✓ Survey method
- ✓ Location Quotient
- ✓ Minimum Requirements.

For the purpose of this study the *location quotient method* is applied. It is important to understand that not all of a basic industry is 'basic'. Only that part of the industry that serves the export market is considered basic. It is the part of the industry that raises the location quotient above 1.0. Any employment below an LQ of 1.0 is Non-Basic – those jobs serve local demand.

A second formula must be applied to the location quotient to determine the number of Basic Sector Jobs – this is only applied to industries with LQ exceeding 1.0.

Basic Sector Employment = (Local Employment Industry/Regional employment Industry) – (Total Local Employment/ Total Regional Employment) X Regional Employment Industry⁶

Table 10.4: Basic Sector Multiplier, 2011

Local Economy	Total Industry Multiplier
West Rand District Economy	9.0
Merafong City Local Economy	3.2
Mogale City Local Economy	16.1
Randfontein Local Economy	9.3
Westonaria Local Economy	2.5

Source: Demacon, 2013

⁵ Source: Georgia Tech, taken from Avrom Bendavid-Val.

⁶ Source: <http://mailer.fsu.edu/tchapin/garnet-tchapin/urp5261/topics/econbase/lq.htm>

West Rand District Economy

- ✓ The Main Basic Sectors within the District Economy is vested in the Agriculture, Forestry and Fishing, Mining and Quarrying, Construction, Wholesale and Retail Trade, Catering and Accommodation, Community, Social and other Personal services and General Government services.
- ✓ Overall the Basic Multiplier for the district economy amounts to **9.0** – reflecting that for every job created in the basic sector, 9.0 jobs could be created in the non-basic sectors of the local economy.

Merafong City Local Economy

- ✓ The Main Basic Sectors within the Local Economy is vested in the Agriculture, Forestry and Fishery, Mining and Quarrying, Wholesale Retail Trade, Catering and Accommodation, Community, Social and other Personal services and General Government services
- ✓ Overall the Basic Multiplier for the local economy amounts to **3.2** – reflecting that for every job created in the basic sector, 3.2 jobs could be created in the non-basic sectors of the local economy.

Mogale City Local Economy

- ✓ The Main Basic Sectors within the Local Economy is vested in the Agriculture, Forestry and Fishery, Mining and Quarrying, Manufacturing, Utilities, Construction, Trade, Transport, Storage and Communication, Community, Social and other Personal services and General Government services.
- ✓ Overall the Basic Multiplier for the local economy amounts to **16.1** – reflecting that for every job created in the basic sector, 16.1 jobs could be created in the non-basic sectors of the local economy.

Randfontein Local Economy

- ✓ The Main Basic Sectors within the Local Economy is vested in the Agriculture, Forestry and Fishery, Mining and Quarrying, Manufacturing and General Government services.
- ✓ Overall the Basic Multiplier for the local economy amounts to **9.3** – reflecting that for every job created in the basic sector, 9.3 jobs could be created in the non-basic sectors of the local economy.

Westonaria City Local Economy

- ✓ The Main Basic Sectors within the Local Economy is vested in the Agriculture, Forestry and Fishery, Mining and Quarrying and General Government services.
- ✓ Overall the Basic Multiplier for the local economy amounts to **2.5** – reflecting that for every job created in the basic sector, 2.5 jobs could be created in the non-basic sectors of the local economy.

10.5 LEADING-LAGGING ANALYSIS

This analysis aims to examine the employment growth of the district / combined regional local economy in terms of the aggregate economy. This analysis uses sector employment growth rates to produce two key values: Provincial / District Sector Relative Growth (PSRG / DSRG) and District / Local Sector Relative Growth (DSRG / LSRG)⁷.

PSRG = Provincial Employment Growth in a Sector – Provincial Employment Growth Overall

DSRG = District Employment Growth in a Sector – District Employment Growth Overall

The results indicates whether the selected sector's growth at provincial / district (or reference economy) level was higher or lower than province / district (or reference economy) growth overall.

Three possible results:

Leading	Sector exceeds growth of aggregate economy
Lagging	Sector either declined in employment or grew at slower rate than aggregate economy
Even	The sector's growth equals aggregate economy growth overall

DSRG = District Employment Growth in the Sector – Regional (or Reference Economy) Employment Growth in the Sector

LSRG = Local Employment Growth in the Sector – Regional (or Reference Economy) Employment Growth in the Sector

Three possible results:

Leading	The district / local sector grew faster or declined at a slower rate than the aggregate economy's sector
Lagging	The district / local sector grew at a slower rate, or declined at a greater rate than the aggregate economy's sector
Even	District / Local sector growth equalled growth in the sector of the aggregate economy

This should be interpreted together with a positive, negative or constant industry growth:

- ✓ Positive Growth – Sector grew in employment
- ✓ Negative Growth – Sector declined in employment
- ✓ Constant Growth – Employment was constant over the time period of the analysis.

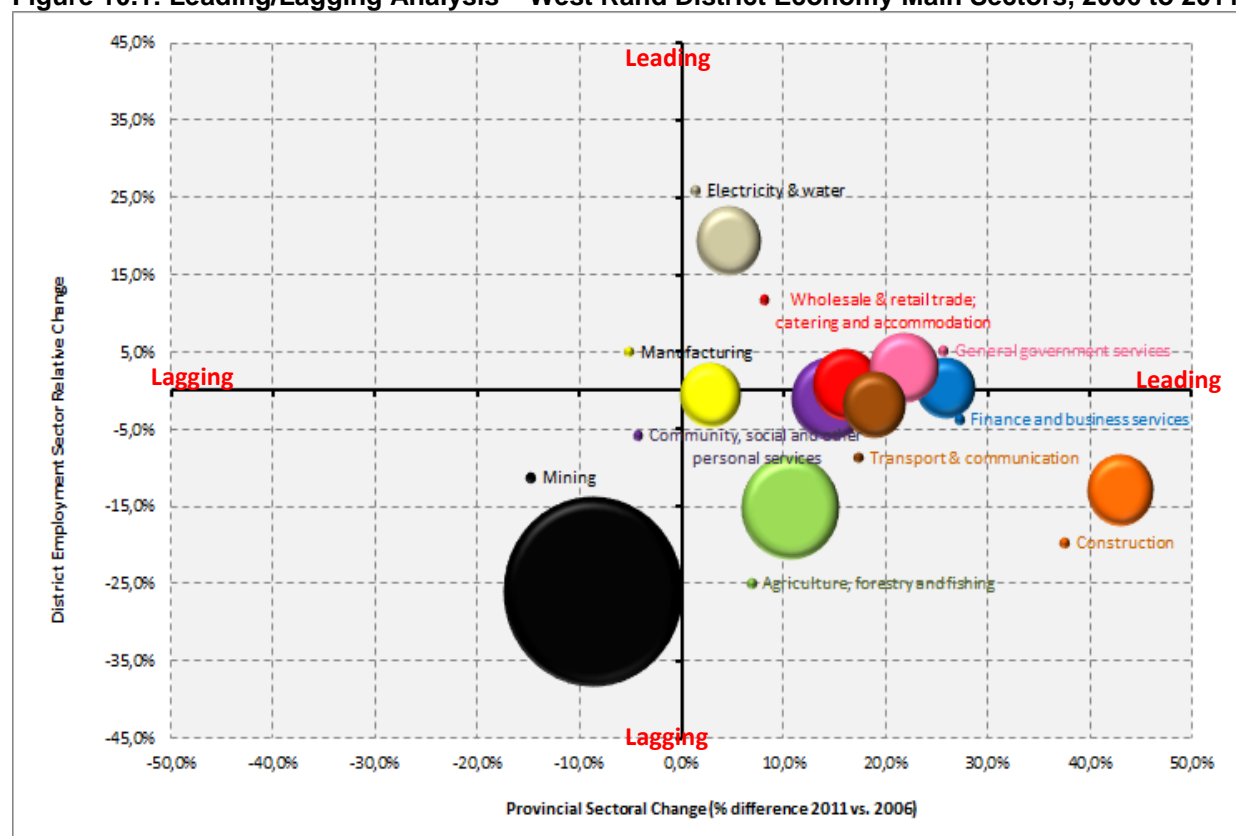
Figures 10.1 and 10.2 illustrate the leading lagging analysis graphically for the district / local economy's main and sub-sectors.

Interpreting leading and lagging results: The PSRG / DSRG and DSRG / LSRG is merely a way of describing the relative growth dynamics of the various sectors. It is provided to compliment the shift share analysis numerical results, by describing the dynamics in words. These values should be considered when looking at the Carvalho and Industry Targeting Classifications.

⁷ Source: www.laverentianvalleytwsp.oh.ca

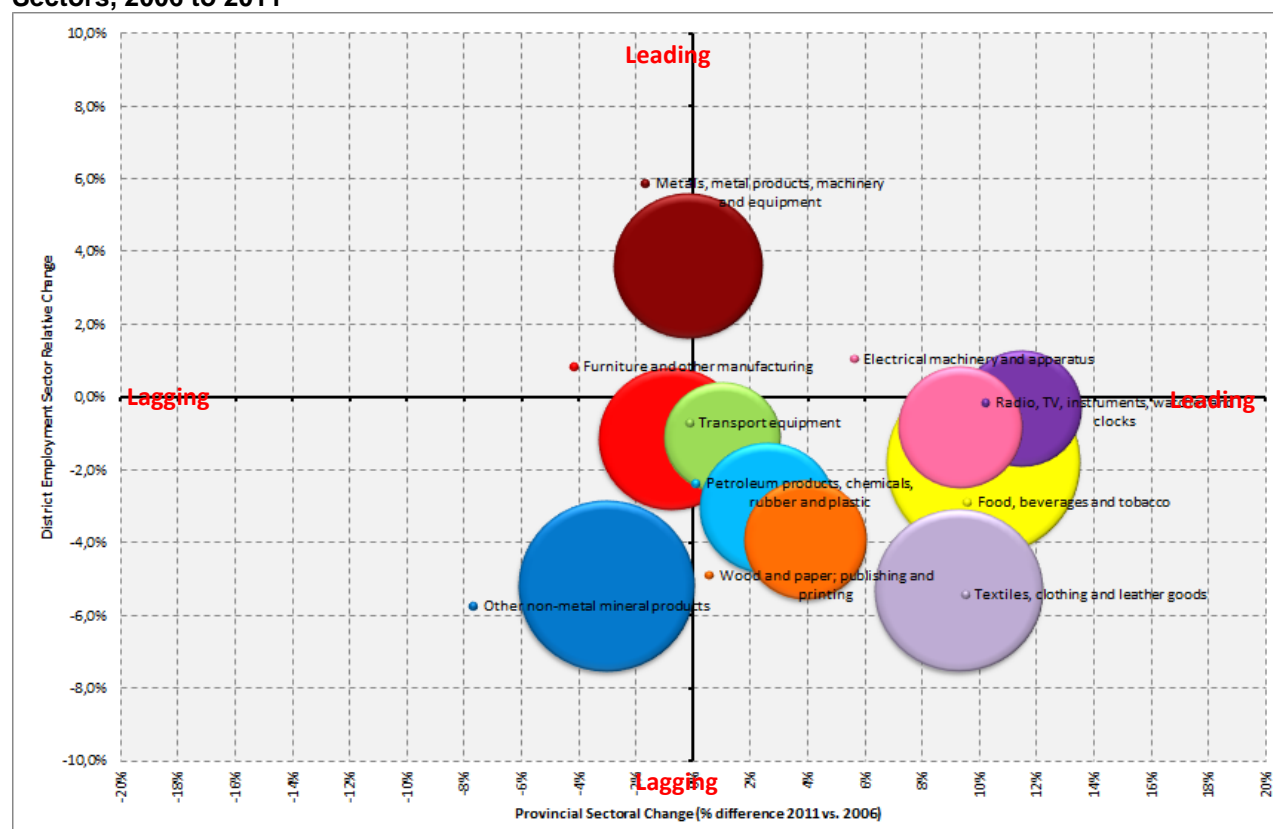
➤ West Rand District Municipality

Figure 10.1: Leading/Lagging Analysis – West Rand District Economy Main Sectors, 2006 to 2011



Source: Demacon, 2013

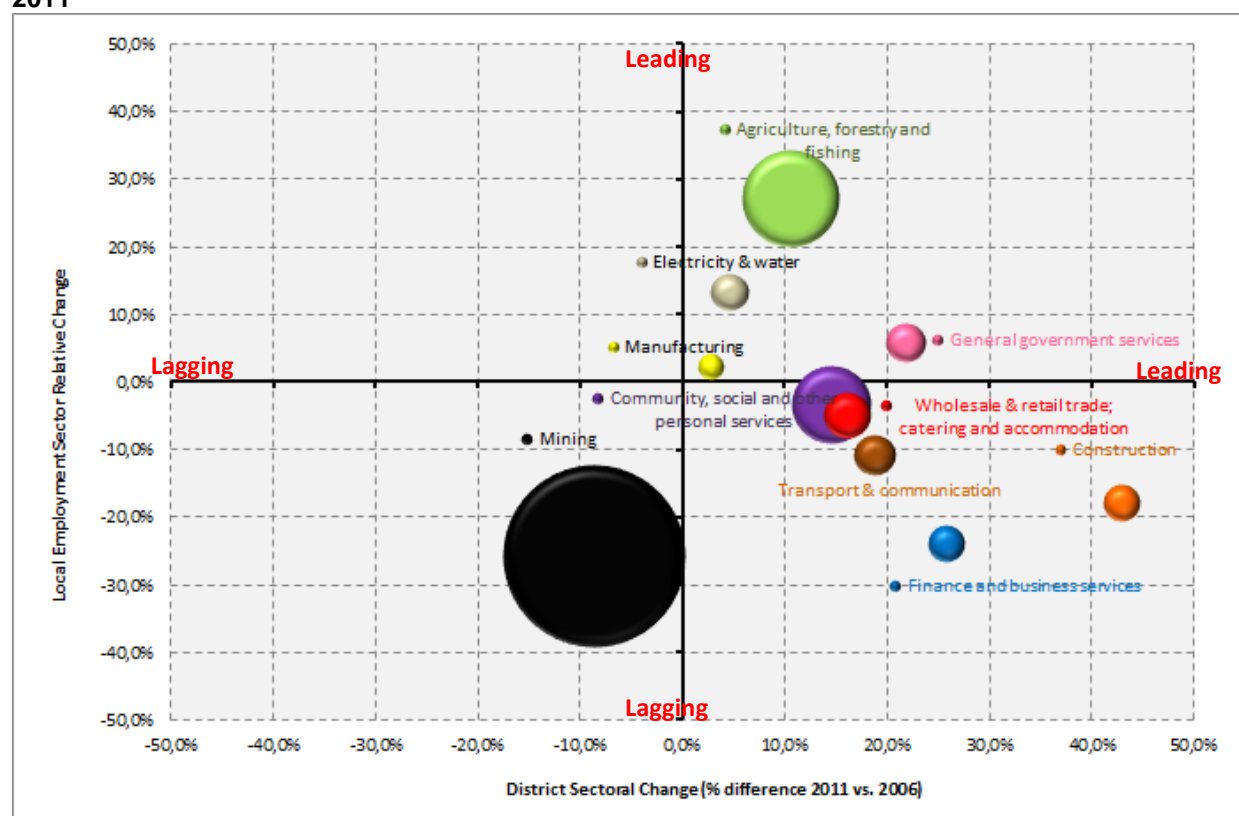
Figure 10.2: Leading/Lagging Analysis – West Rand District Economy Manufacturing Sub-Sectors, 2006 to 2011



Source: Demacon, 2013

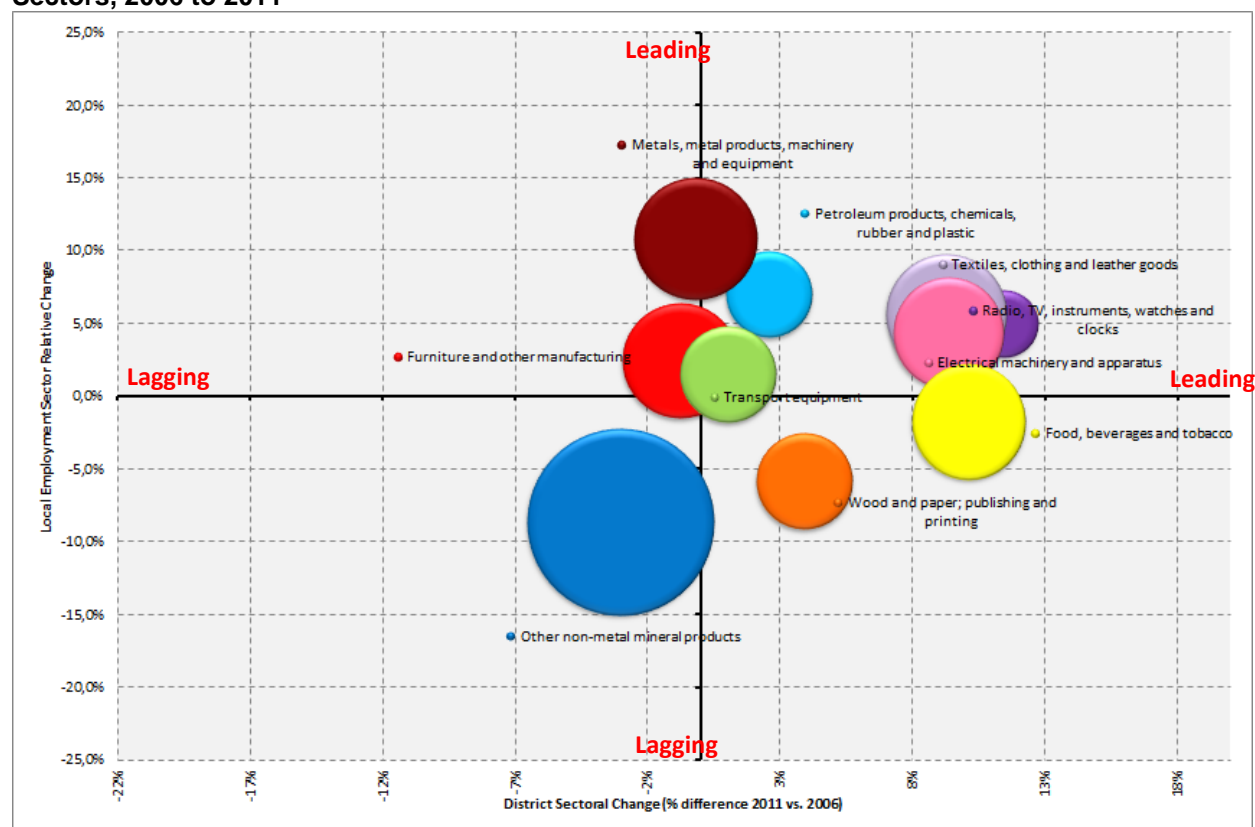
➤ Merafong City Local Municipality

Figure 10.3: Leading/Lagging Analysis – Merafong City Local Economy Main Sectors, 2006 to 2011



Source: Demacon, 2013

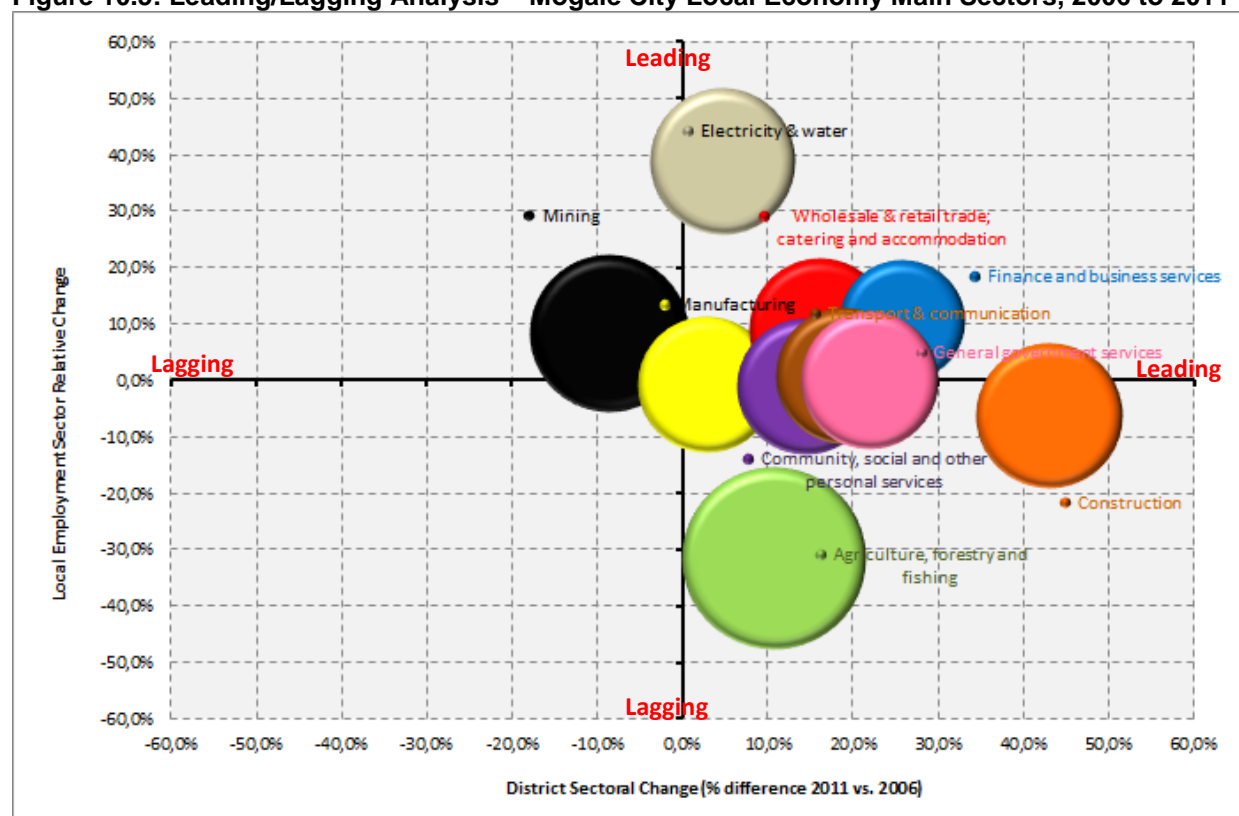
Figure 10.4: Leading/Lagging Analysis – Merafong City Local Economy Manufacturing Sub-Sectors, 2006 to 2011



Source: Demacon, 2013

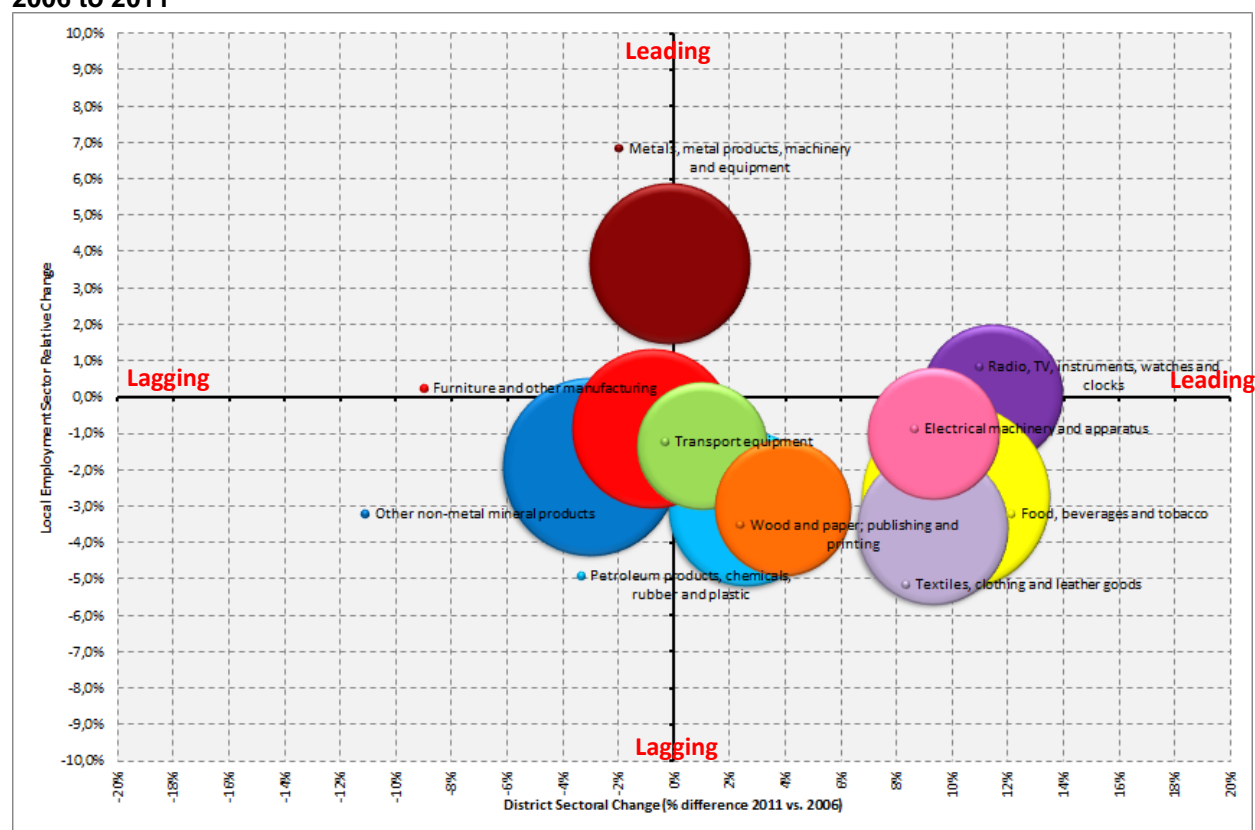
➤ Mogale City Local Municipality

Figure 10.5: Leading/Lagging Analysis – Mogale City Local Economy Main Sectors, 2006 to 2011



Source: Demacon, 2013

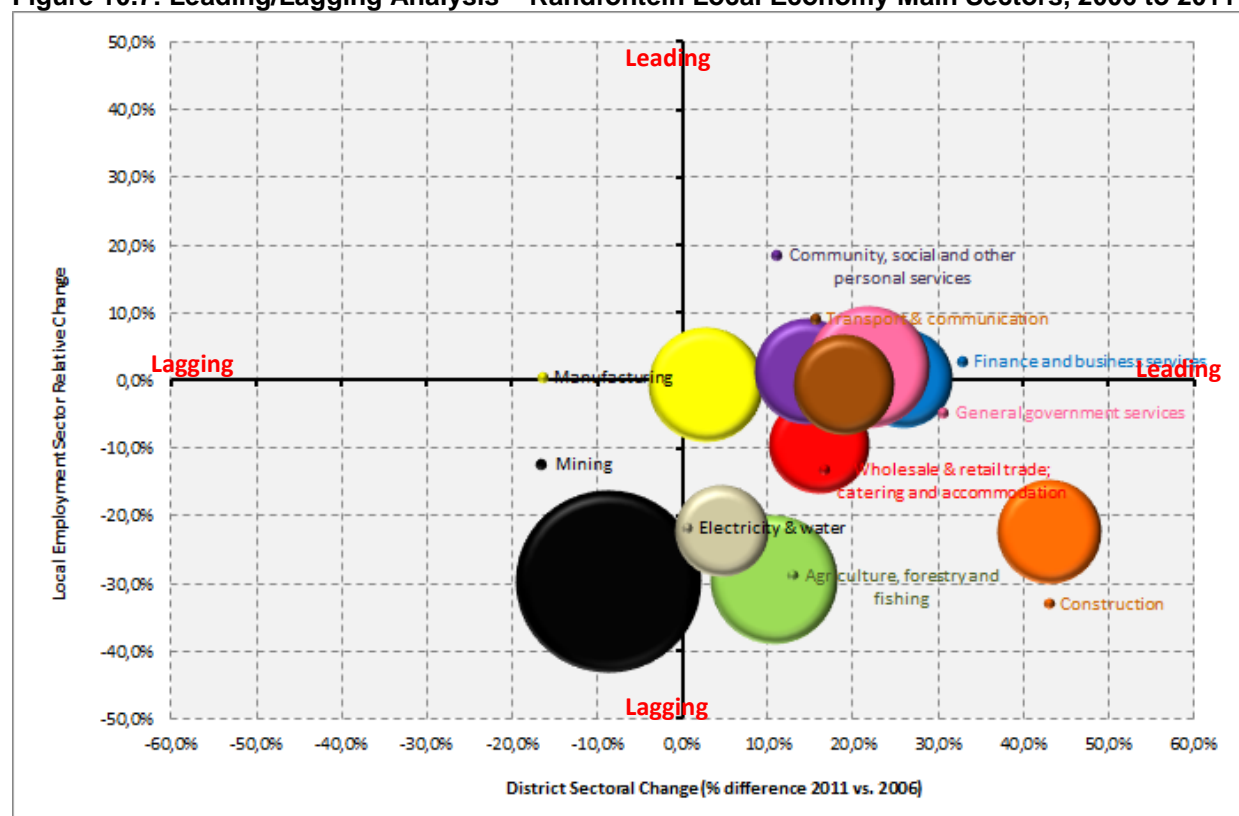
Figure 10.6: Leading/Lagging Analysis – Mogale City Local Economy Manufacturing Sub-Sectors, 2006 to 2011



Source: Demacon, 2013

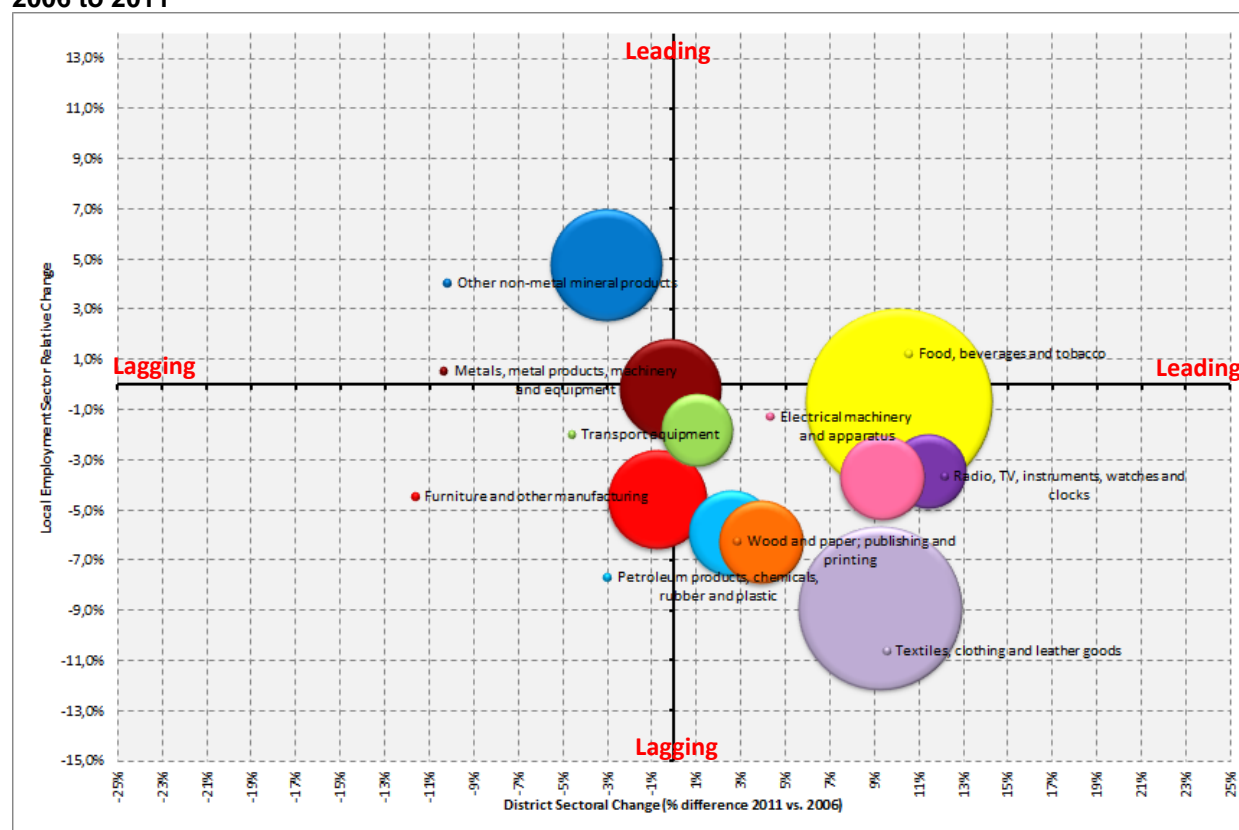
➤ **Randfontein Local Municipality**

Figure 10.7: Leading/Lagging Analysis – Randfontein Local Economy Main Sectors, 2006 to 2011



Source: Demacon, 2013

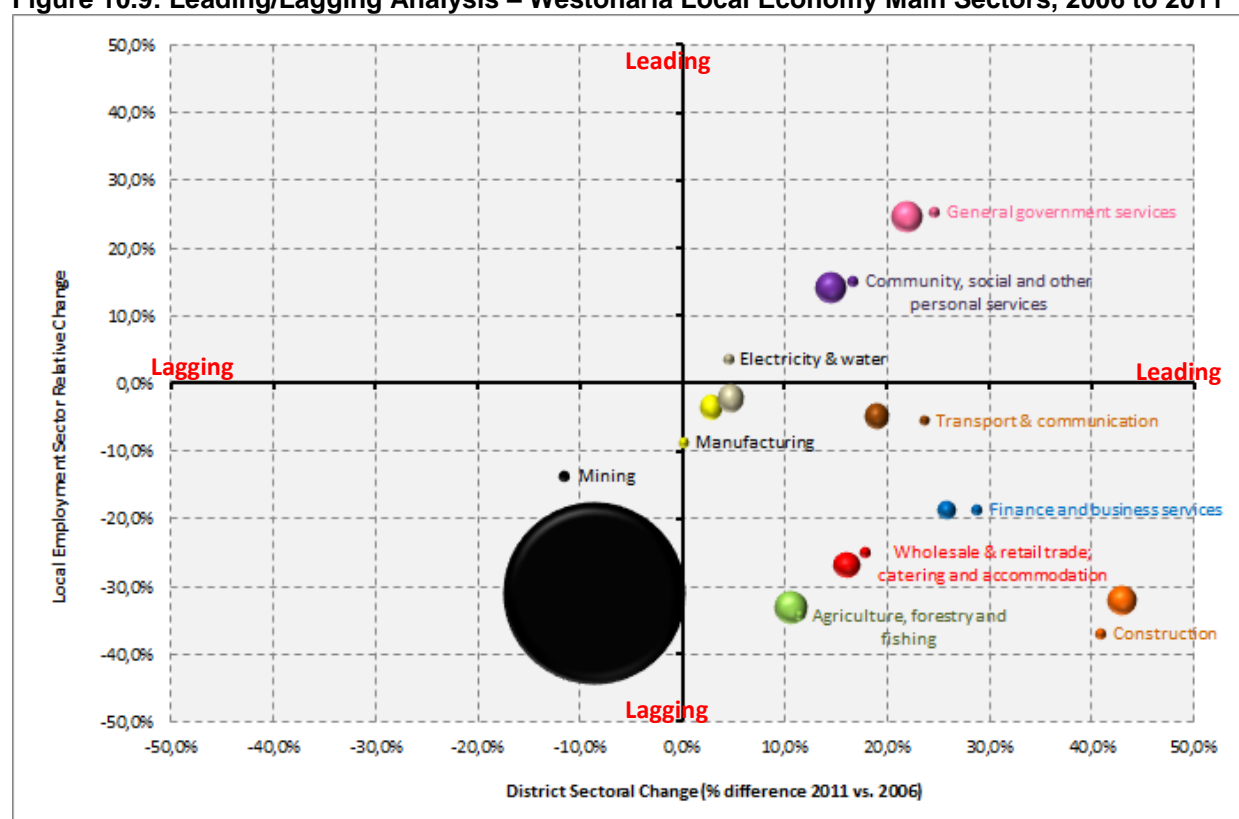
Figure 10.8: Leading/Lagging Analysis – Randfontein Local Economy Manufacturing Sub-Sectors, 2006 to 2011



Source: Demacon, 2013

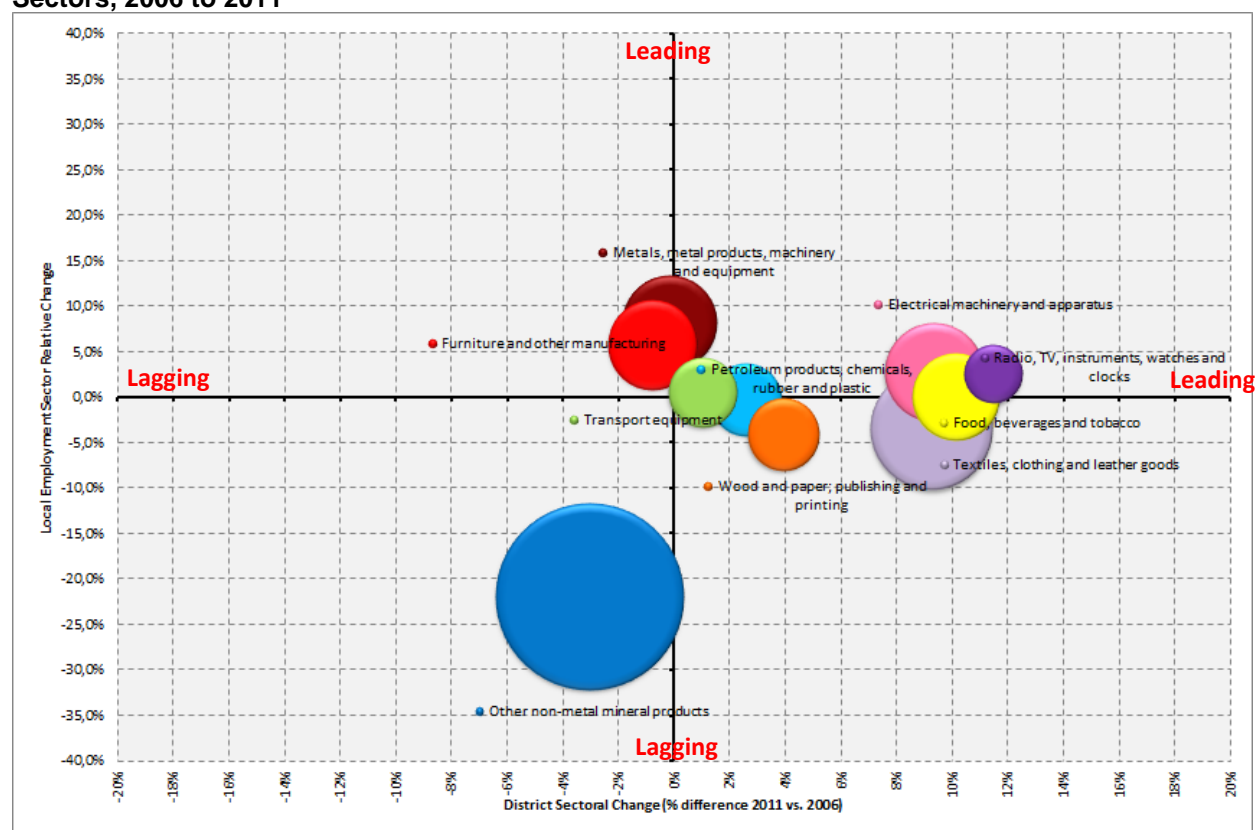
➤ Westonaria Local Municipality

Figure 10.9: Leading/Lagging Analysis – Westonaria Local Economy Main Sectors, 2006 to 2011



Source: Demacon, 2013

Figure 10.10: Leading/Lagging Analysis – Westonaria Local Economy Manufacturing Sub-Sectors, 2006 to 2011



Source: Demacon, 2013

10.6 CARVALHO CLASSIFICATION

The Carvalho Classification has been developed in 2000 by Dr. Emanuel Carvalho from the University of Waterloo in collaboration with OMAFRA CED Unit staff. Three values are combined in the classification – LQ, DSRG and LSRG.

There are 12 classifications, from ‘driving’ (for sectors that are leading in DSRG and LSRG and had high location quotients) to ‘marginal’ (for sectors that were lagging in DSRG and LSRG and had low location quotients). It is important to note that these categories are descriptive and not pre-scriptive. It provides a multi-dimensional indication of the suitability of sectors, supported by tools and instruments that could be utilised in the development of these sectors.

Table 10.5: Classification, Interpretation and Definition

Classification	Interpretation	Definition
Driving	DSRG and LSRG leading LQ > 1.25	Community is highly specialised in this sector, which is growing in the aggregate economy and growing at an even higher rate locally
Accelerating	DSRG and LSRG leading LQ 0.75 to 1.24	Community is neither highly specialised nor under-specialised in this sector, which is growing at the aggregate economy level and growing at an even higher rate locally
Rising	DSRG and LSRG leading LQ < 0.74	Relatively low proportion of local employment, but will likely increase due to growth in this sector, which is growing on an aggregate economy level and growing at an even higher rate locally
Evolving	DSRG lagging and LSRG leading LQ > 1.25	High local specialisation in a sector which grew at an aggregate economy level at a slower rate than overall growth, local growth exceeded aggregate economic growth in this sector
Transitional	DSRG lagging and LSRG leading LQ 0.75 to 1.24	Average specialisation in a sector which grew at an aggregate economy level at a slower rate than overall growth, local growth exceeded aggregate economy growth in this sector
Moderate	DSRG lagging and LSRG leading LQ < 0.74	Relatively underrepresented in a sector which grew at an aggregate economy level at a slower rate than overall growth; local growth exceeded aggregate economy growth in this sector
Promising	DSRG leading and LSRG lagging LQ > 1.25	High local specialisation in a sector which grew at an aggregate economy level, local growth was slower than aggregate economic growth in this sector
Yielding	DSRG leading and LSRG lagging LQ 0.75 to 1.24	Average specialisation in a sector which grew at an aggregate economic level, local growth was slower than aggregate economic growth in this sector
Modest	DSRG leading and LSRG lagging LQ < 0.74	Relatively low specialisation in a sector which grew at an aggregate economic level; local growth was slower than aggregate economic growth in this sector
Challenging	DSRG lagging and LSRG lagging LQ > 1.25	Industries have a relatively high concentration of employment in the community, which suggests that they play a prominent role in overall employment in the community and should be monitored carefully
Vulnerable	DSRG lagging and LSRG lagging LQ 0.75 to 1.24	Industries have an average concentration of employment
Marginal	DSRG lagging and LSRG lagging LQ < 0.74	Industries are under-represented in the community

Source: Demacon based on www.reddi.gov.on.ca/cea_carvalho.htm

➤ **Carvalho Classification of West Rand District Economy****Table 10.6: Carvalho Classification of West Rand District Economy versus Gauteng Provincial Economy, 2006 to 2011**

	Main sectors	Sub Sectors
West Rand District Economy		
Driving, accelerating and rising sectors <i>Growing at district and provincial level</i>	<ul style="list-style-type: none"> ✓ General Government Service ✓ Finance and Business Services 	<ul style="list-style-type: none"> ✓ Metal, metal products, machinery and equipment ✓ Water ✓ Catering and accommodation ✓ Communication ✓ Business services
Evolving, transitional and moderate sectors <i>Growing faster at district than provincial level</i>	<ul style="list-style-type: none"> ✓ Utilities ✓ Wholesale & retail trade; catering and accommodation 	<ul style="list-style-type: none"> ✓ Electricity ✓ Wholesale and retail trade
Promising, yielding and modest sectors <i>Growing slower at district level than at provincial level</i>	<ul style="list-style-type: none"> ✓ Construction ✓ Transport and Communication 	<ul style="list-style-type: none"> ✓ Transport ✓ Finance and insurance
Challenging sectors <i>High concentration of employment – however, not growing at district or provincial level</i>	<ul style="list-style-type: none"> ✓ Agriculture, Forestry and Fishing ✓ Mining ✓ Community, social and other personal services 	<ul style="list-style-type: none"> ✓ Food, beverages and tobacco ✓ Community, social and other personal services - other
Vulnerable and marginal sectors <i>Relatively unrepresented in economy</i>	<ul style="list-style-type: none"> ✓ Manufacturing 	<ul style="list-style-type: none"> ✓ Textiles, clothing and leather goods ✓ Wood and paper; publishing and printing ✓ Petroleum products, chemicals, rubber and plastic ✓ Other non-metal mineral products ✓ Electrical machinery and apparatus ✓ Radio, TV, instruments, watches and clocks ✓ Transport equipment ✓ Furniture and other manufacturing

Source: Demacon, 2013

➤ **Carvalho Classification of Merafong City Local Economy****Table 10.7: Carvalho Classification of Merafong City Local Economy versus West Rand District Economy, 2006 to 2011**

	Main sectors	Sub Sectors
Merafong City Local Economy		
Driving, accelerating and rising sectors <i>Growing at local and district level</i>	✓ General Government Services	✓ Water
Evolving, transitional and moderate sectors <i>Growing faster at local than district level</i>	✓ Agriculture, Forestry and Fishing ✓ Manufacturing ✓ Utilities	✓ Textiles, clothing and leather goods ✓ Petroleum products, chemicals, rubber and plastic ✓ Metal, metal products, machinery and equipment ✓ Electrical machinery and apparatus ✓ Radio, TV, instruments, watches and clocks ✓ Transport equipment ✓ Furniture and other manufacturing ✓ Electricity
Promising, yielding and modest sectors <i>Growing slower at local level than at district level</i>	✓ Construction ✓ Transport and Communication ✓ Finance and Business Services	✓ Catering and accommodation ✓ Transport ✓ Communication ✓ Finance and insurance ✓ Business services
Challenging sectors <i>High concentration of employment – however, not growing at local or district level</i>	✓ Mining ✓ Community, social and other personal services	✓ Community, social and other personal services - other
Vulnerable and marginal sectors <i>Relatively unrepresented in economy</i>	✓ Wholesale & retail trade; catering and accommodation	✓ Food, beverages and tobacco ✓ Wood and paper; publishing and printing ✓ Other non-metal mineral products ✓ Wholesale and retail trade

Source: Demacon, 2013

➤ **Carvalho Classification of Mogale City Local Economy****Table 10.8: Carvalho Classification of Mogale City Local Economy versus West Rand District Economy, 2006 to 2011**

	Main sectors	Sub Sectors
Mogale City Local Economy		
Driving, accelerating and rising sectors <i>Growing at local and district level</i>	<ul style="list-style-type: none"> ✓ Transport and Communication ✓ Finance and Business Services ✓ General Government Services 	<ul style="list-style-type: none"> ✓ Water ✓ Catering and accommodation ✓ Communication ✓ Finance and insurance ✓ Business services
Evolving, transitional and moderate sectors <i>Growing faster at local than district level</i>	<ul style="list-style-type: none"> ✓ Mining ✓ Utilities ✓ Wholesale & retail trade; catering and accommodation 	<ul style="list-style-type: none"> ✓ Metal, metal products, machinery and equipment ✓ Radio, TV, instruments, watches and clocks ✓ Electricity ✓ Wholesale and retail trade
Promising, yielding and modest sectors <i>Growing slower at local level than at district level</i>	<ul style="list-style-type: none"> ✓ Construction 	<ul style="list-style-type: none"> ✓ Transport
Challenging sectors <i>High concentration of employment – however, not growing at local or district level</i>	<ul style="list-style-type: none"> ✓ Agriculture, Forestry and Fishing 	<ul style="list-style-type: none"> ✓ Food, beverages and tobacco ✓ Other non-metal mineral products
Vulnerable and marginal sectors <i>Relatively unrepresented in economy</i>	<ul style="list-style-type: none"> ✓ Manufacturing ✓ Community, social and other personal services 	<ul style="list-style-type: none"> ✓ Textiles, clothing and leather goods ✓ Wood and paper; publishing and printing ✓ Petroleum products, chemicals, rubber and plastic ✓ Electrical machinery and apparatus ✓ Transport equipment ✓ Furniture and other manufacturing ✓ Community, social and other personal services – other

Source: Demacon, 2013

➤ **Carvalho Classification of Randfontein Local Economy****Table 10.9: Carvalho Classification of Randfontein Local Economy versus West Rand District Economy, 2006 to 2011**

	Main sectors	Sub Sectors
Randfontein Local Economy		
Driving, accelerating and rising sectors <i>Growing at local and district level</i>	✓ Finance and Business Services ✓ General Government Services	✓ Business services
Evolving, transitional and moderate sectors <i>Growing faster at local than district level</i>	✓ Community, social and other personal services	✓ Other non-metal mineral products ✓ Community, social and other personal services – other
Promising, yielding and modest sectors <i>Growing slower at local level than at district level</i>	✓ Construction ✓ Transport and Communication	✓ Water ✓ Catering and accommodation ✓ Transport ✓ Communication ✓ Finance and insurance
Challenging sectors <i>High concentration of employment – however, not growing at local or district level</i>	✓ Agriculture, Forestry and Fishing ✓ Mining	✓ Food, beverages and tobacco ✓ Textiles, clothing and leather goods
Vulnerable and marginal sectors <i>Relatively unrepresented in economy</i>	✓ Manufacturing ✓ Utilities ✓ Wholesale & retail trade; catering and accommodation	✓ Wood and paper; publishing and printing ✓ Petroleum products, chemicals, rubber and plastic ✓ Metal, metal products, machinery and equipment ✓ Electrical machinery and apparatus ✓ Radio, TV, instruments, watches and clocks ✓ Transport equipment ✓ Furniture and other manufacturing ✓ Electricity ✓ Wholesale and retail trade

Source: Demacon, 2013

➤ **Carvalho Classification of Westonaria Local Economy****Table 10.10: Carvalho Classification of Westonaria Local Economy versus West Rand District Economy, 2006 to 2011**

	Main sectors	Sub Sectors
Westonaria Local Economy		
Driving, accelerating and rising sectors <i>Growing at local and district level</i>	✓ General Government Services	✓ None
Evolving, transitional and moderate sectors <i>Growing faster at local than district level</i>	✓ Community, social and other personal services	✓ Food, beverages and tobacco ✓ Metal, metal products, machinery and equipment ✓ Electrical machinery and apparatus ✓ Radio, TV, instruments, watches and clocks ✓ Transport equipment ✓ Furniture and other manufacturing ✓ Community, social and other personal services – other
Promising, yielding and modest sectors <i>Growing slower at local level than at district level</i>	✓ Construction ✓ Transport and Communication ✓ Finance and Business Services	✓ Water ✓ Catering and accommodation ✓ Transport ✓ Communication ✓ Finance and insurance ✓ Business services
Challenging sectors <i>High concentration of employment – however, not growing at local or district level</i>	✓ Mining	✓ Other non-metal mineral products
Vulnerable and marginal sectors <i>Relatively unrepresented in economy</i>	✓ Agriculture, Forestry and Fishing ✓ Manufacturing ✓ Utilities ✓ Wholesale & retail trade; catering and accommodation	✓ Textiles, clothing and leather goods ✓ Wood and paper; publishing and printing ✓ Petroleum products, chemicals, rubber and plastic ✓ Electricity ✓ Wholesale and retail trade

Source: Demacon, 2013

10.7 INDUSTRY TARGET CLASSIFICATION

This classification is similar to that of the Carvalho Model in that it is based on a combination of the location quotient, Provincial / District Sector Growth and LSRG / DSRG values and it is expressed qualitative not quantitative. It is somewhat different in the way that it classifies the sectors, the categories are phrases that suggest the kind of prospects for growth that could be expected and in some cases, whether the sector should be a retention target.

Table 10.11: Industry Target Classification System - Categories

DSRG / LSRG	Provincial / District Growth	Location Quotient	Classification	Definition
Leading	Positive	Medium or High (> 0.75)	Current Strength	Sector currently growing strong
		Low (<0.75)	Emerging Strength	Indication that a sector is experiencing growth and can be classified as having definite development potential
	Negative	Medium or High (> 0.75)	Prospects limited by external trends	External trends represent a multitude of elements that strain development and growth and include competitiveness, exchange rate, fluctuations, performance of international economies, oil prices etc.
		Low (<0.75)	Prospects limited by external trends and weak base	A weak base is an indication that the sector is structurally not particularly strong and limited in its diversification. This along with external trends strain the development prospects
Lagging	Positive	Medium or High (> 0.75)	High priority retention target	Indication of a previously dominant or economically important sector that needs to retain its positive economic position – making it a priority for growth and development.
		Low (<0.75)	Prospects limited by weak base and declining competitiveness	A weak base indicate a need for diversification and declining competitiveness reflects that it might not be structural as strong as is needed for development potential
	Negative	Medium or High (> 0.75)	Prospects limited by external trends and declining competitiveness	External trends hinder development, supported by declining levels of competitiveness.
		Low (<0.75)	Prospects limited overall	Growth prospects are limited to a minimum for this sector and the economy should rather focus on other economic sectors.

Source: Sask Trends Monitor, 2007

➤ West Rand District Economy Industry Targeting Classification

Table 10.12: West Rand District Economy Industry Targeting Classification, 2006 to 2011

	Main Sectors	Sub-sectors
Leading Sectors		
Current and Emerging Strengths <i>LSRG leading (grow faster than district) and DG positive</i>	<ul style="list-style-type: none"> ✓ Community, social and personal services ✓ General government services 	<ul style="list-style-type: none"> ✓ Other non-metal mineral products ✓ Community, social and personal services, other
Prospects limited by external trends and weak base <i>LSRG leading (grow faster than district) and DG negative</i>	<ul style="list-style-type: none"> ✓ None 	<ul style="list-style-type: none"> ✓ None
Lagging Sectors		
High priority retention target and prospects limited by weak base and declining competitiveness <i>LSRG lagging (grow slower than district) and DG positive</i>	<ul style="list-style-type: none"> ✓ Mining and quarrying ✓ Construction ✓ Wholesale and retail trade, catering and accommodation 	<ul style="list-style-type: none"> ✓ Food, beverages and tobacco ✓ Textiles, clothing and leather goods ✓ Water ✓ Wholesale and retail trade ✓ Transport and storage
Prospects limited by external trends and declining competitiveness and prospects limited overall <i>LSRG lagging (grow slower than district) and DG negative</i>	<ul style="list-style-type: none"> ✓ Agriculture, forestry and fishing ✓ Manufacturing ✓ Utilities ✓ Transport, storage and communication ✓ Finance, insurance, real estate and business services 	<ul style="list-style-type: none"> ✓ Wood, paper, publishing and printing ✓ Petroleum products, chemicals, rubber and plastic ✓ Metals, metal products, machinery and equipment ✓ Electrical machinery and apparatus ✓ Radio, TV, instruments, watches and clocks ✓ Transport equipment ✓ Furniture and other manufacturing ✓ Electricity ✓ Catering and accommodation services ✓ Communication ✓ Finance and insurance ✓ Business services

Source: Demacon, 2013

➤ Merafong City Local Economy Industry Targeting Classification

Table 10.13: Merafong City Local Economy Industry Targeting Classification, 2006 to 2011

Leading Sectors	Main Sectors	Sub-sectors
<p>Current and Emerging Strengths</p> <p><i>LSRG leading (grow faster than district) and DG positive</i></p>	<ul style="list-style-type: none"> ✓ Agriculture, forestry and fishing ✓ Manufacturing ✓ Utilities ✓ General government services 	<ul style="list-style-type: none"> ✓ Textiles, clothing and leather goods ✓ Petroleum products, chemicals, rubber and plastic ✓ Electrical machinery and apparatus ✓ Radio, TV, instruments, watches and clocks ✓ Transport equipment ✓ Electricity ✓ Water
<p>Prospects limited by external trends and weak base</p> <p><i>LSRG leading (grow faster than district) and DG negative</i></p>	<ul style="list-style-type: none"> ✓ None 	<ul style="list-style-type: none"> ✓ Metals, metal products, machinery and equipment ✓ Furniture and other manufacturing
<p>Lagging Sectors</p> <p>High priority retention target and prospects limited by weak base and declining competitiveness</p> <p><i>LSRG lagging (grow slower than district) and DG positive</i></p>	<ul style="list-style-type: none"> ✓ Construction ✓ Wholesale and retail trade, catering and accommodation ✓ Transport, storage and communication ✓ Finance, insurance, real estate and business services ✓ Community, social and personal services 	<ul style="list-style-type: none"> ✓ Wholesale and retail trade ✓ Catering and accommodation services ✓ Transport and storage ✓ Communication ✓ Finance and insurance ✓ Business services ✓ Community, social and personal services, other
<p>Prospects limited by external trends and declining competitiveness and prospects limited overall</p> <p><i>LSRG lagging (grow slower than district) and DG negative</i></p>	<ul style="list-style-type: none"> ✓ Mining and quarrying 	<ul style="list-style-type: none"> ✓ Food, beverages and tobacco ✓ Wood, paper, publishing and printing ✓ Other non-metal mineral products

Source: Demacon, 2013

➤ **Mogale City Local Economy Industry Targeting Classification****Table 10.14: Mogale City Local Economy Industry Targeting Classification, 2006 to 2011**

	Main Sectors	Sub-sectors
Leading Sectors		
Current and Emerging Strengths <i>LSRG leading (grow faster than district) and DG positive</i>	<ul style="list-style-type: none"> ✓ Utilities ✓ Wholesale and retail trade, catering and accommodation ✓ Transport, storage and communication ✓ Finance, insurance, real estate and business services ✓ General government services 	<ul style="list-style-type: none"> ✓ Radio, TV, instruments, watches and clocks ✓ Electricity ✓ Water ✓ Wholesale and retail trade ✓ Catering and accommodation services ✓ Communication ✓ Finance and insurance ✓ Business services
Prospects limited by external trends and weak base <i>LSRG leading (grow faster than district) and DG negative</i>	<ul style="list-style-type: none"> ✓ Mining and quarrying 	<ul style="list-style-type: none"> ✓ Metals, metal products, machinery and equipment
Lagging Sectors		
High priority retention target and prospects limited by weak base and declining competitiveness <i>LSRG lagging (grow slower than district) and DG positive</i>	<ul style="list-style-type: none"> ✓ Agriculture, forestry and fishing ✓ Manufacturing ✓ Construction ✓ Community, social and personal services 	<ul style="list-style-type: none"> ✓ Food, beverages and tobacco ✓ Textiles, clothing and leather goods ✓ Wood, paper, publishing and printing ✓ Petroleum products, chemicals, rubber and plastic ✓ Transport and storage ✓ Community, social and personal services, other
Prospects limited by external trends and declining competitiveness and prospects limited overall <i>LSRG lagging (grow slower than district) and DG negative</i>	<ul style="list-style-type: none"> ✓ 	<ul style="list-style-type: none"> ✓ Other non-metal mineral products ✓ Electrical machinery and apparatus ✓ Transport equipment ✓ Furniture and other manufacturing

Source: Demacon, 2013

➤ **Randfontein Local Economy Industry Targeting Classification****Table 10.15: Randfontein Local Economy Industry Targeting Classification, 2006 to 2011**

Leading Sectors	Main Sectors	Sub-sectors
Current and Emerging Strengths <i>LSRG leading (grow faster than district) and DG positive</i>	<ul style="list-style-type: none"> ✓ Finance, insurance, real estate and business services ✓ Community, social and personal services ✓ General government services 	<ul style="list-style-type: none"> ✓ Business services ✓ Community, social and personal services, other
Prospects limited by external trends and weak base <i>LSRG leading (grow faster than district) and DG negative</i>	<ul style="list-style-type: none"> ✓ None 	<ul style="list-style-type: none"> ✓ Other non-metal mineral products
Lagging Sectors		
High priority retention target and prospects limited by weak base and declining competitiveness <i>LSRG lagging (grow slower than district) and DG positive</i>	<ul style="list-style-type: none"> ✓ Agriculture, forestry and fishing ✓ Manufacturing ✓ Utilities ✓ Construction ✓ Wholesale and retail trade, catering and accommodation ✓ Transport, storage and communication 	<ul style="list-style-type: none"> ✓ Food, beverages and tobacco ✓ Textiles, clothing and leather goods ✓ Wood, paper, publishing and printing ✓ Petroleum products, chemicals, rubber and plastic ✓ Electrical machinery and apparatus ✓ Radio, TV, instruments, watches and clocks ✓ Transport equipment ✓ Electricity ✓ Water ✓ Wholesale and retail trade ✓ Catering and accommodation services ✓ Transport and storage ✓ Communication ✓ Finance and insurance
Prospects limited by external trends and declining competitiveness and prospects limited overall <i>LSRG lagging (grow slower than district) and DG negative</i>	<ul style="list-style-type: none"> ✓ Mining and quarrying 	<ul style="list-style-type: none"> ✓ Metals, metal products, machinery and equipment ✓ Furniture and other manufacturing

Source: Demacon, 2013

➤ **Westonaria Local Economy Industry Targeting Classification****Table 10.16: Westonaria Local Economy Industry Targeting Classification, 2006 to 2011**

Leading Sectors	Main Sectors	Sub-sectors
Current and Emerging Strengths <i>LSRG leading (grow faster than district) and DG positive</i>	<ul style="list-style-type: none"> ✓ Community, social and personal services ✓ General government services 	<ul style="list-style-type: none"> ✓ Food, beverages and tobacco ✓ Electrical machinery and apparatus ✓ Radio, TV, instruments, watches and clocks ✓ Transport equipment ✓ Community, social and personal services, other
Prospects limited by external trends and weak base <i>LSRG leading (grow faster than district) and DG negative</i>	✓ None	<ul style="list-style-type: none"> ✓ Metals, metal products, machinery and equipment ✓ Furniture and other manufacturing
Lagging Sectors		
High priority retention target and prospects limited by weak base and declining competitiveness <i>LSRG lagging (grow slower than district) and DG positive</i>	<ul style="list-style-type: none"> ✓ Agriculture, forestry and fishing ✓ Manufacturing ✓ Utilities ✓ Construction ✓ Wholesale and retail trade, catering and accommodation ✓ Transport, storage and communication ✓ Finance, insurance, real estate and business services 	<ul style="list-style-type: none"> ✓ Textiles, clothing and leather goods ✓ Wood, paper, publishing and printing ✓ Petroleum products, chemicals, rubber and plastic ✓ Electricity ✓ Water ✓ Wholesale and retail trade ✓ Catering and accommodation services ✓ Transport and storage ✓ Communication ✓ Finance and insurance ✓ Business services
Prospects limited by external trends and declining competitiveness and prospects limited overall <i>LSRG lagging (grow slower than district) and DG negative</i>	✓ Mining and quarrying	<ul style="list-style-type: none"> ✓ Other non-metal mineral products

Source: Demacon, 2013

The industry target classification is displayed graphically in Figures 10.11 to 10.12. The size of the circles represents the location quotient, that is, the relative size of the sector.

Sectors located in the top and bottom left quadrants are considered having limited prospects because these industries are declining in the aggregate economy. If they are small they have additional challenges and if they are within the negative range in terms of LSRG, they also suffer from declining competitiveness.

In **business terminology** the **upper left quadrant** reflect industry groups that are **increasing their market share** in a **declining market**, industries in the **lower left quadrant** represents industries that are **losing market share** in a **declining market**.

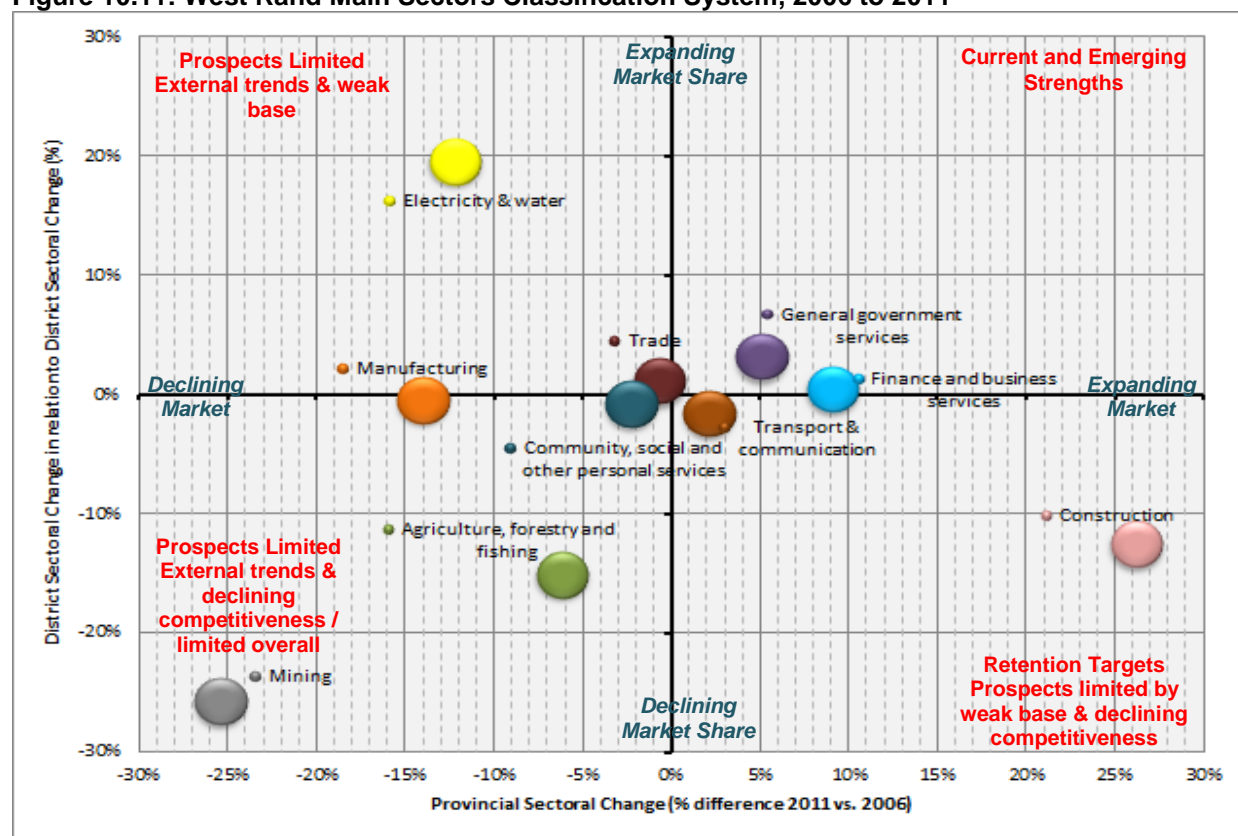
Sectors falling within the lower right quadrant are classified as retention targets (if large enough) because they are growing in the aggregate economy but more slowly locally. Smaller industry groups in this quadrant are deemed to have limited prospects.

Sectors within the upper right quadrant are growing in the aggregate economy and locally. These industries represent the strengths and emerging strengths of the local economy. If the circles are large it represents current strengths and if the circles are smaller then it reflects emerging strengths.

In **business terminology** industries in the **upper right quadrant** are **increasing their market share** in an **expanding market**, whereas the industries in the **lower right quadrant** are **losing market share** in an **expanding market**.

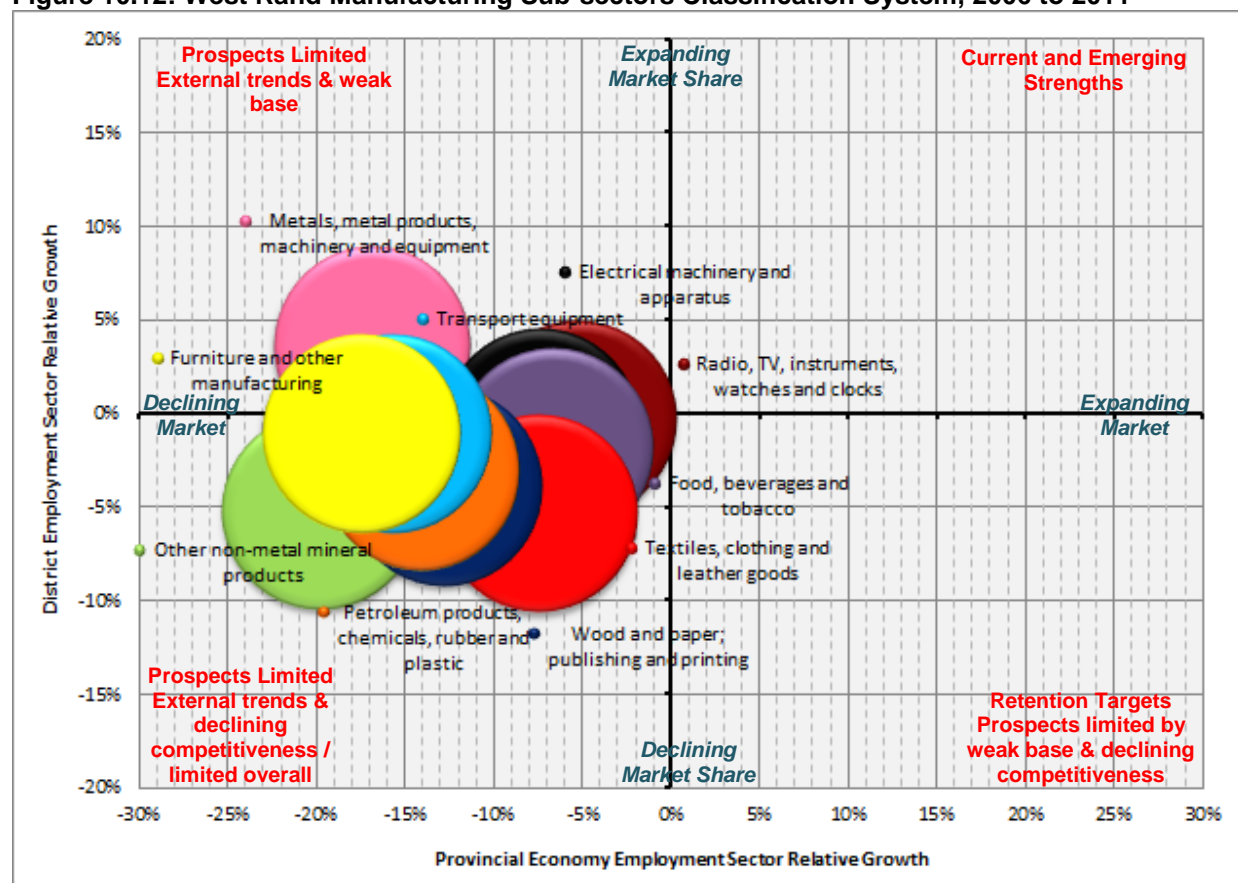
➤ West Rand District Municipality

Figure 10.11: West Rand Main Sectors Classification System, 2006 to 2011



Source: Demacon, 2013

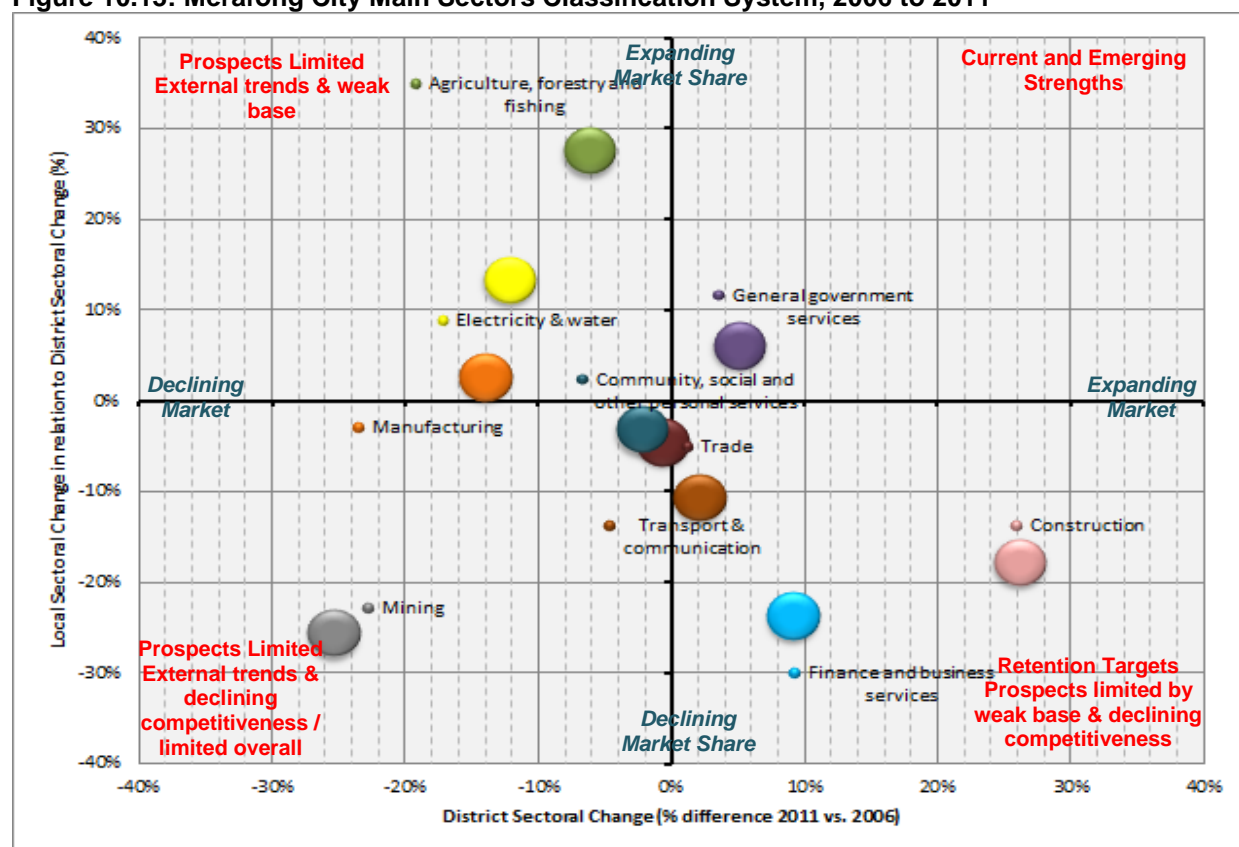
Figure 10.12: West Rand Manufacturing Sub-sectors Classification System, 2006 to 2011



Source: Demacon, 2013

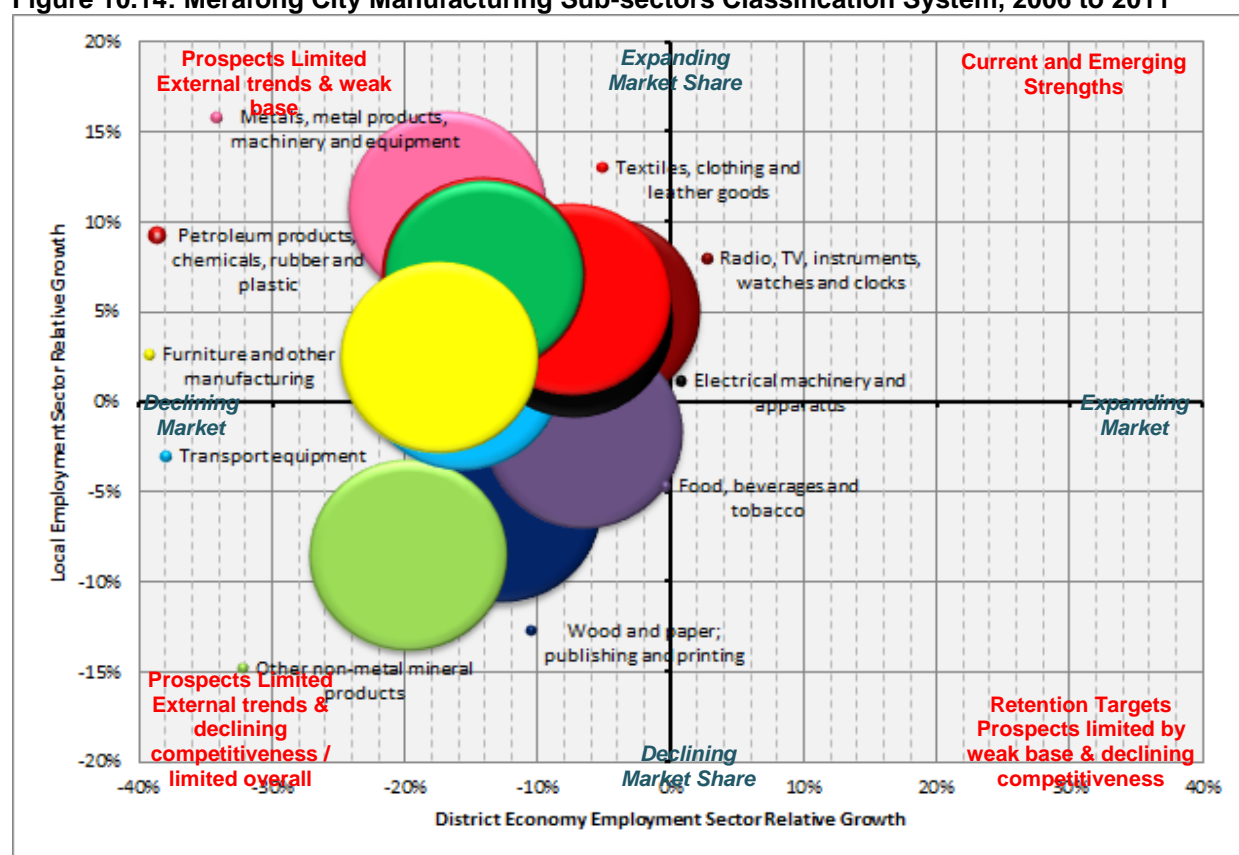
➤ **Merafong City Local Municipality**

Figure 10.13: Merafong City Main Sectors Classification System, 2006 to 2011



Source: Demacon, 2013

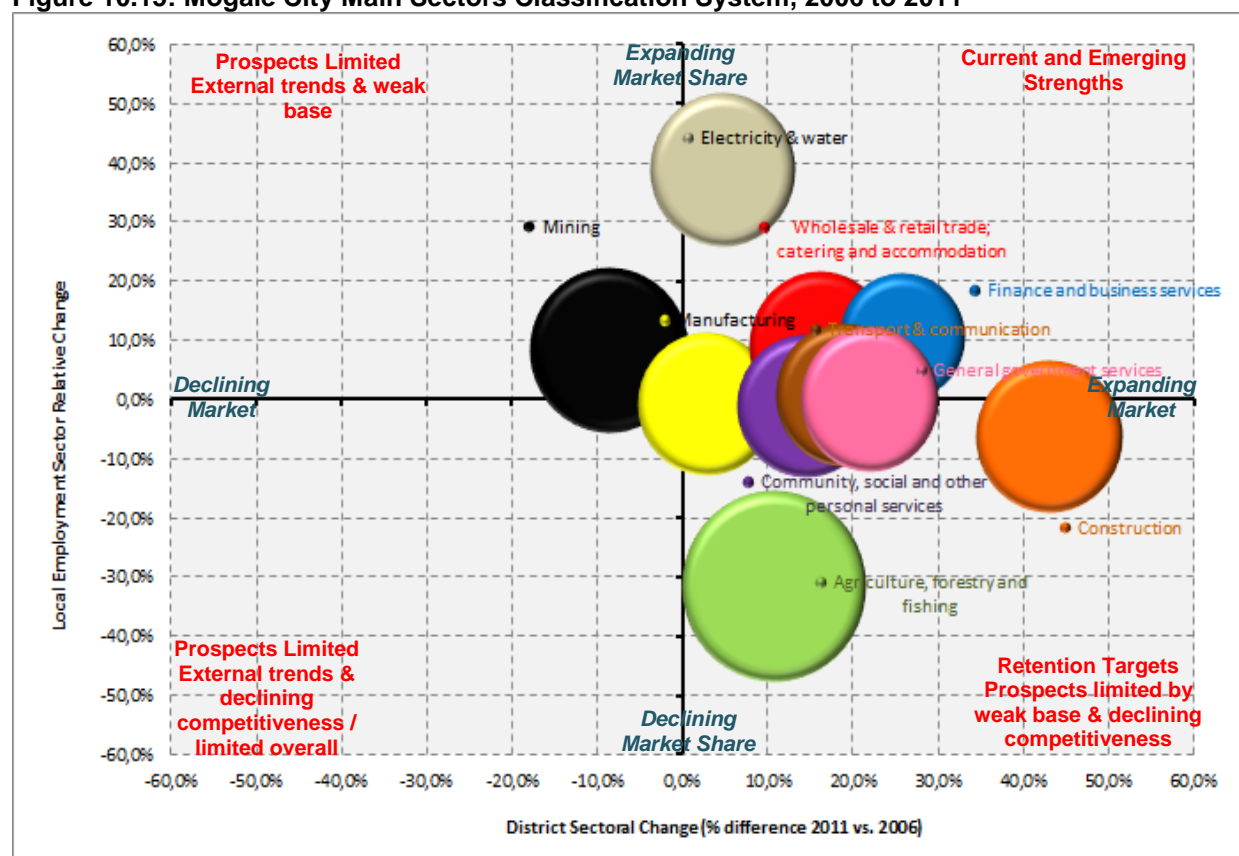
Figure 10.14: Merafong City Manufacturing Sub-sectors Classification System, 2006 to 2011



Source: Demacon, 2013

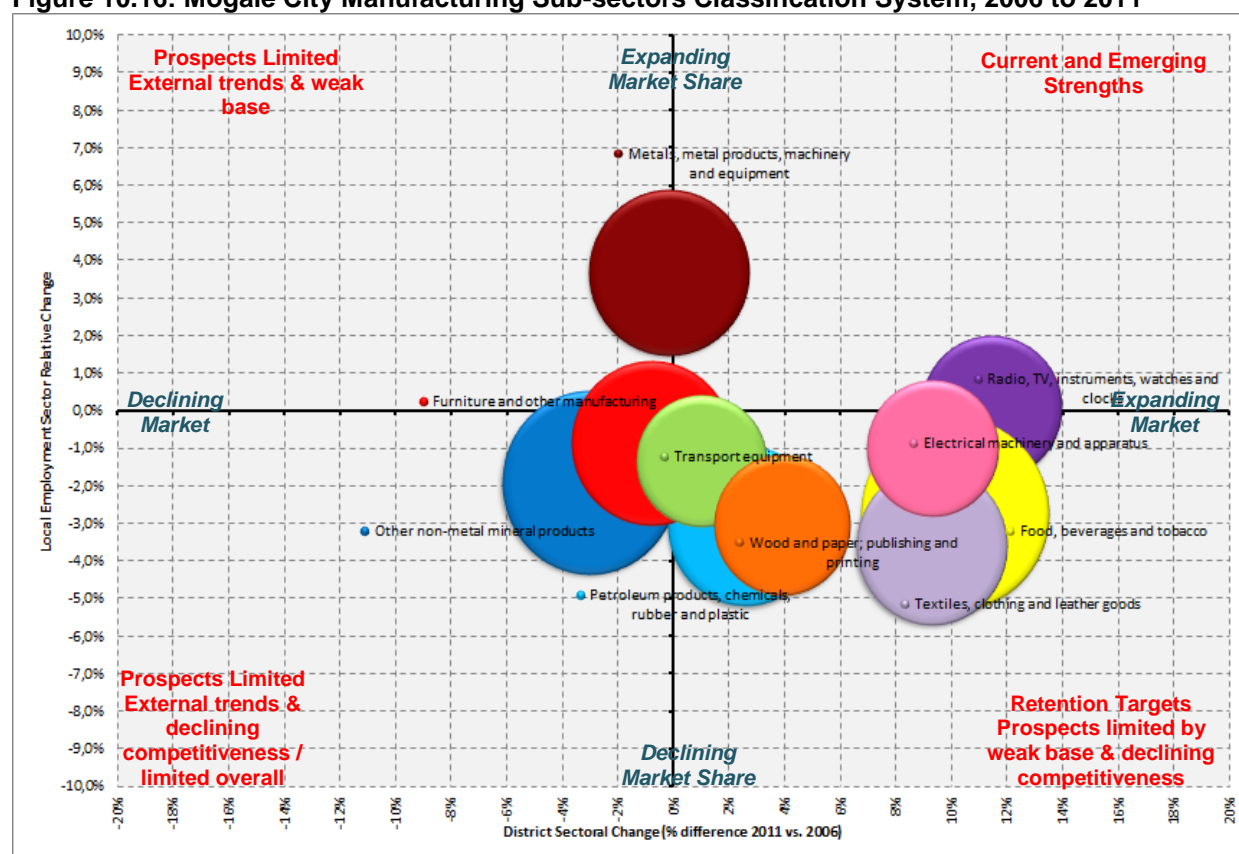
➤ Mogale City Local Municipality

Figure 10.15: Mogale City Main Sectors Classification System, 2006 to 2011



Source: Demacon, 2013

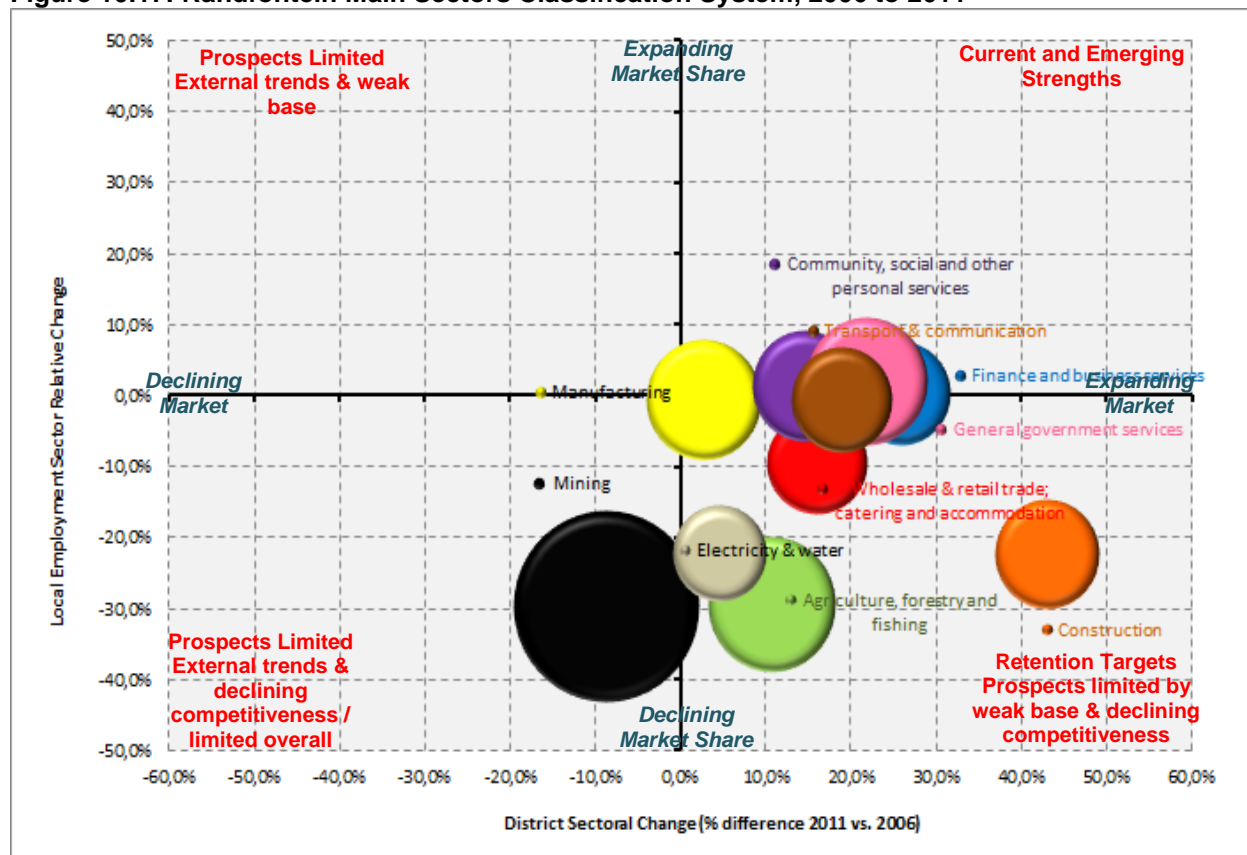
Figure 10.16: Mogale City Manufacturing Sub-sectors Classification System, 2006 to 2011



Source: Demacon, 2013

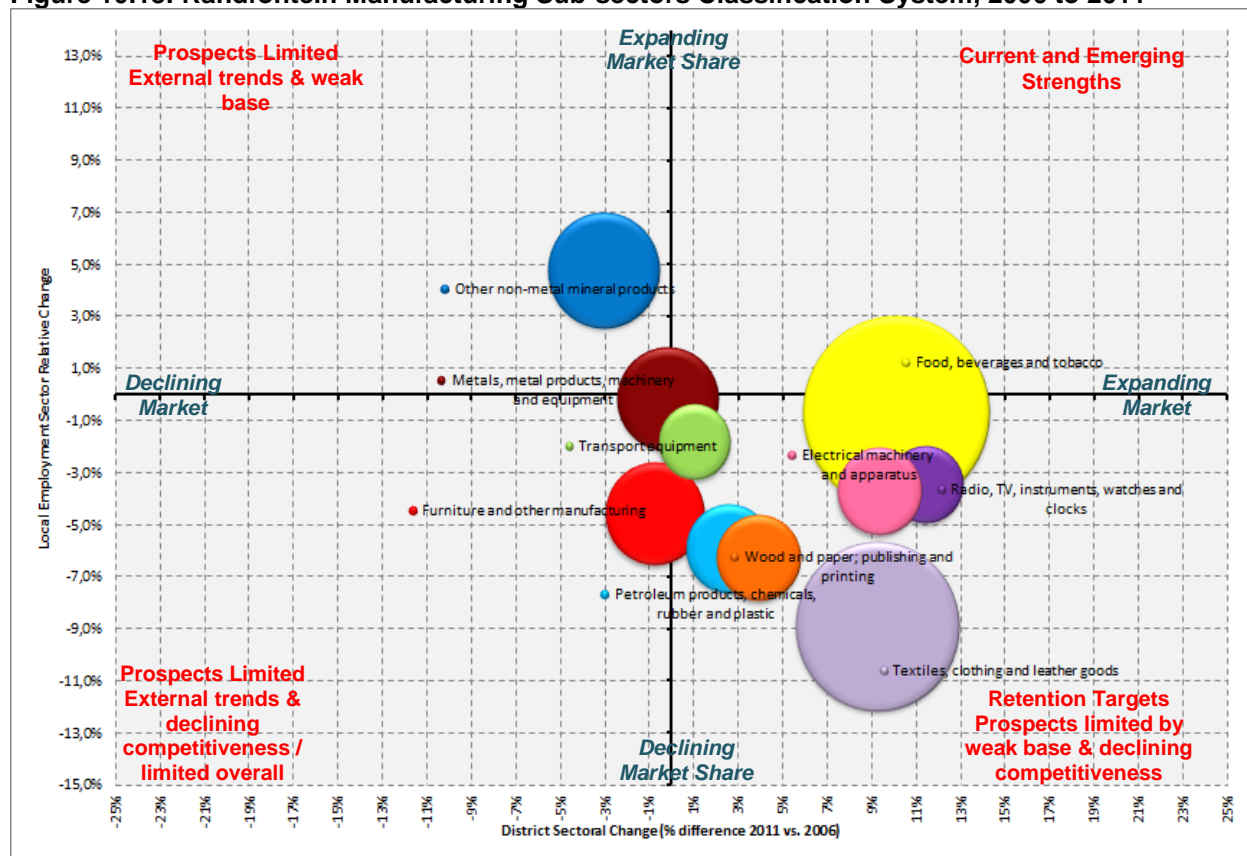
➤ Randfontein Local Municipality

Figure 10.17: Randfontein Main Sectors Classification System, 2006 to 2011



Source: Demacon, 2013

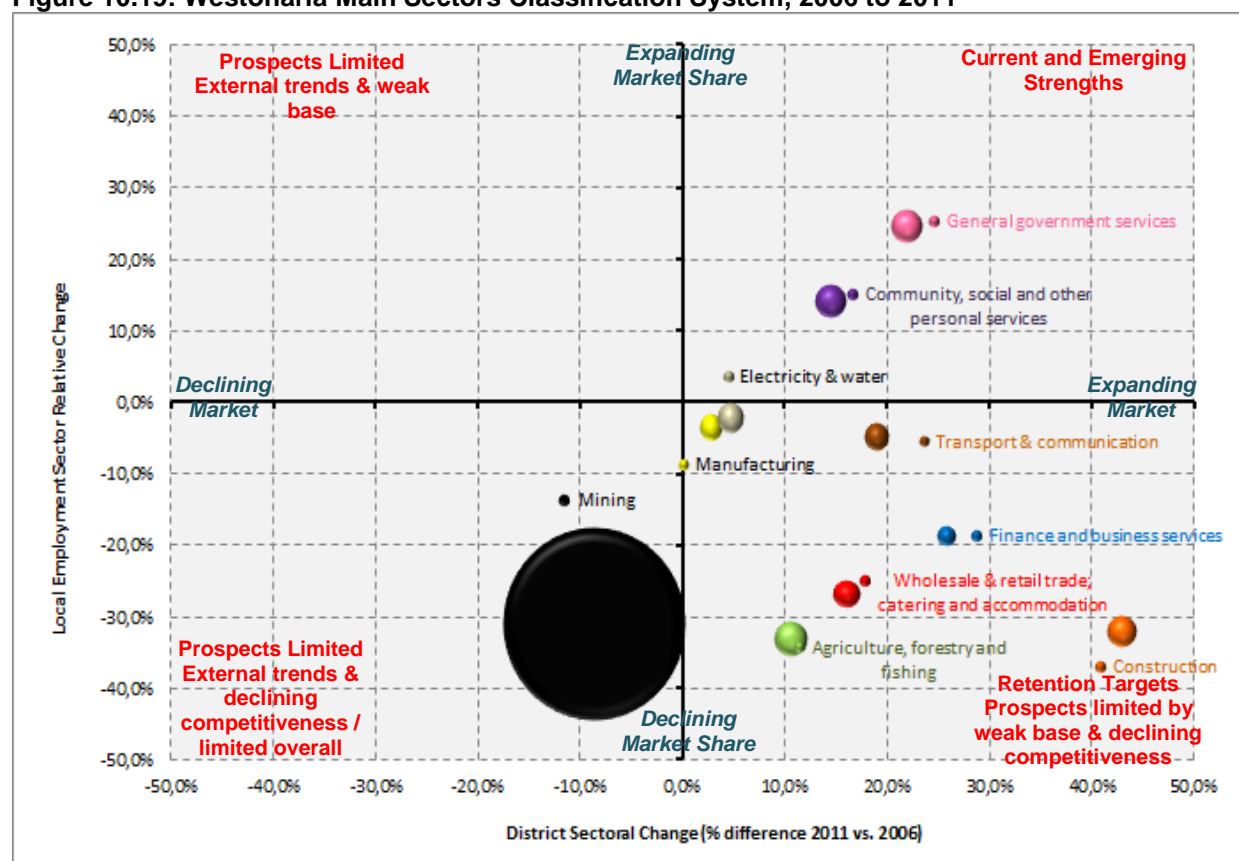
Figure 10.18: Randfontein Manufacturing Sub-sectors Classification System, 2006 to 2011



Source: Demacon, 2013

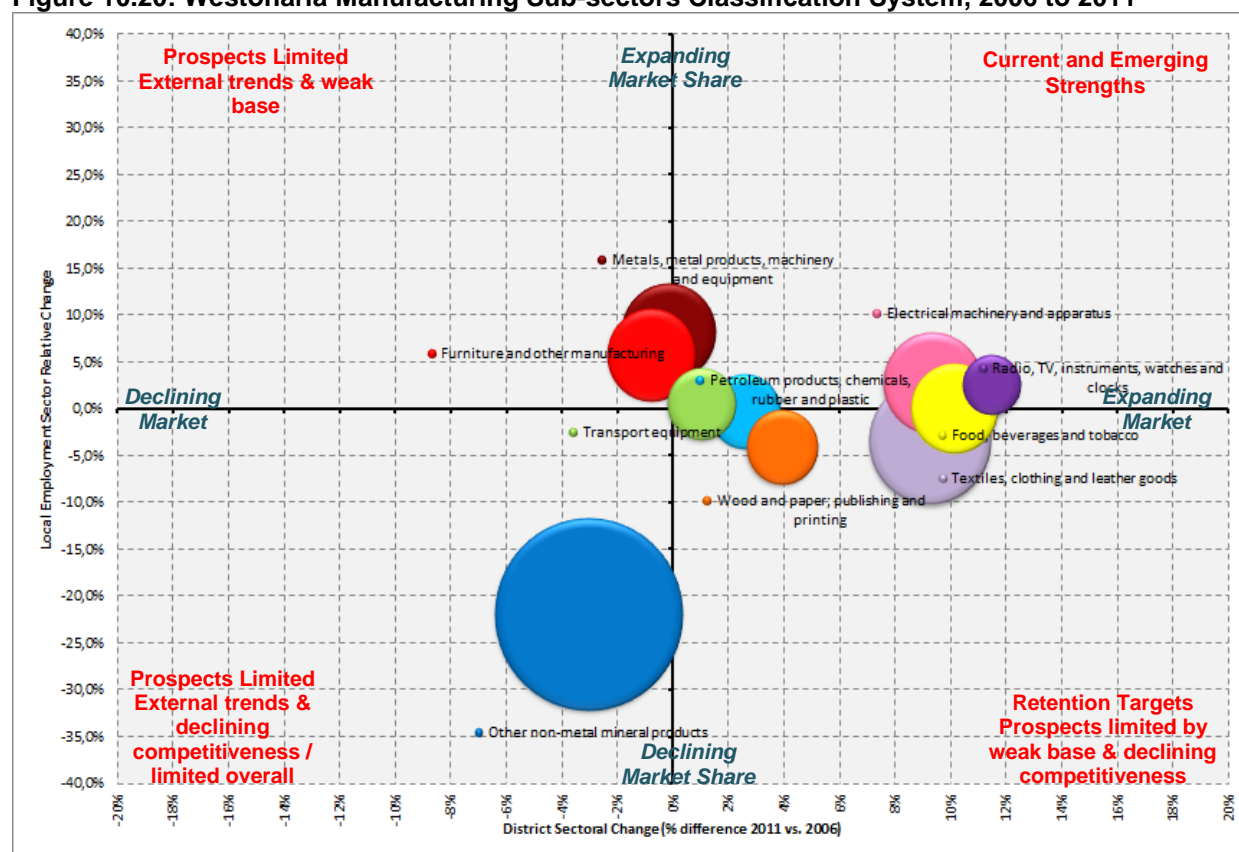
➤ Westonaria Local Municipality

Figure 10.19: Westonaria Main Sectors Classification System, 2006 to 2011



Source: Demacon, 2013

Figure 10.20: Westonaria Manufacturing Sub-sectors Classification System, 2006 to 2011



Source: Demacon, 2013

10.8 SYNTHESIS

Given the **Competitive Advantage Analysis (CAA)** focused on examining district / local industries/sectors to identify leading and lagging sectors and their prospects for employment growth. The following primary and secondary target sectors have been identified.

Table 10.17: Target Sectors

Primary Target Sectors	Secondary Target Sectors
West Rand District	
<ul style="list-style-type: none"> ✓ General Government Services ✓ Finance and Business Services ✓ Transport and Communication ✓ Construction 	<ul style="list-style-type: none"> ✓ Utilities ✓ Wholesale& retail Trade, Catering and Accommodation
Merafong City Local	
<ul style="list-style-type: none"> ✓ General Government Services ✓ Transport and Communication ✓ Finance and Business Services ✓ Construction 	<ul style="list-style-type: none"> ✓ Agriculture, Forestry and Fishing ✓ Utilities ✓ Manufacturing
Mogale City Local	
<ul style="list-style-type: none"> ✓ Utilities ✓ Wholesale& retail Trade, Catering and Accommodation ✓ Finance and Business Services ✓ Transport and Communication ✓ Manufacturing ✓ Community, Social and Personal Services ✓ General Government Services ✓ Construction ✓ Agriculture, Forestry and Fishing 	<ul style="list-style-type: none"> ✓ Mining
Randfontein Local	
<ul style="list-style-type: none"> ✓ Community, Social and Personal Services ✓ General Government Services ✓ Transport and Communication ✓ Finance and Business Services ✓ Manufacturing ✓ Wholesale& retail Trade, Catering and Accommodation ✓ Utilities ✓ Construction ✓ Agriculture, Forestry and Fishing 	<ul style="list-style-type: none"> ✓ None
Westonaria	
<ul style="list-style-type: none"> ✓ General Government Services ✓ Community, Social and Personal Services ✓ Utilities ✓ Manufacturing ✓ Transport and Communication ✓ Finance and Business Services ✓ Wholesale& retail Trade, Catering and Accommodation ✓ Construction ✓ Agriculture, Forestry and Fishing 	<ul style="list-style-type: none"> ✓ None

Source: Demacon, 2013

Note:

- ✓ In **business terminology** industries in the upper right quadrant are increasing their market share in an expanding market, whereas the industries in the lower right quadrant are losing market share in an expanding market. These sectors represent the primary target sectors within the local economies.
- ✓ The secondary target sectors should represent industries within the upper left quadrant increasing their market share in a declining market.

Table 10.18: Target Sub-Sectors:

Primary Target Sub-sectors	Secondary Target Sub-sectors
West Rand District	
✓ None	✓ Metals, metal products, machinery and equipment ✓ Radio, TV, instruments, watches and clocks ✓ Transport equipment
Merafong City Local	
✓ None	✓ Metals, metal products, machinery and equipment ✓ Textiles, clothing and leather goods ✓ Petroleum products, chemicals, rubber and plastic ✓ Furniture and other manufacturing ✓ Radio, TV, instruments, watches and clocks ✓ Electrical machinery and apparatus
Mogale City Local	
✓ Radio, TV, instruments, watches and clocks ✓ Electrical machinery and apparatus ✓ Food, beverages and tobacco ✓ Textiles, clothing and leather goods ✓ Wood and paper; publishing and printing ✓ Transport equipment ✓ Petroleum products, chemicals, rubber and plastic	✓ Metals, metal products, machinery and equipment
Randfontein Local	
✓ Food, beverages and tobacco ✓ Electrical machinery and apparatus ✓ Radio, TV, instruments, watches and clocks ✓ Textiles, clothing and leather goods ✓ Wood and paper; publishing and printing ✓ Petroleum products, chemicals, rubber and plastic ✓ Transport equipment	✓ Other non-metal mineral products
Westonaria	
✓ Electrical machinery and apparatus ✓ Radio, TV, instruments, watches and clocks ✓ Food, beverages and tobacco ✓ Textiles, clothing and leather goods ✓ Petroleum products, chemicals, rubber and plastic ✓ Transport equipment ✓ Wood and paper; publishing and printing	✓ Furniture and other manufacturing ✓ Metals, metal products, machinery and equipment

Source: Demacon, 2013

Note:

- ✓ In **business terminology** industries in the upper right quadrant are increasing their market share in an expanding market, whereas the industries in the lower right quadrant are losing market share in an expanding market. These sectors represent the primary target sectors within the local economies.
- ✓ The secondary target sectors should represent industries within the upper left quadrant increasing their market share in a declining market.

CHAPTER 11: CONCLUSIONS

11.1 INTRODUCTION

The purpose of this chapter is to synthesise on the key findings of the status quo report. Firstly, an overall SWOT analysis summary for the West Rand is provided, followed by a summary of the key economic sectors West Rand District.

11.2 WEST RAND INDUSTRIAL POTENTIAL SWOT ANALYSIS

The following table summarizes a SWOT analysis for the West Rand in terms of the industrial dynamics of the district.

Table 11.1: West Rand SWOT Analysis

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> ✓ The West Rand District is well connected in terms of provincial movement spines (N12 / N14 / R28 / R500 etc.) ✓ Most of the existing industrial nodes are located along / in close proximity to mayor movement spines ✓ Large and accessible labour force ✓ Popular and continued strong demand for industrial space within the West Rand 	<ul style="list-style-type: none"> ✓ Limited sight value and exposure of some of the industrial nodes ✓ Older negative perceptions related to historic mining character of industries / nodes
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> ✓ Most of the industrial nodes have some vacant even available for infill and / or redevelopment. ✓ Under developed nodes and corridors ✓ Development potential for the establishment of new industrial nodes / corridors ✓ Expansion potential of most of the industrial nodes ✓ Branding and signage for the West Rand industrial sector and individual industrial nodes ✓ Transformation of industrial nodes into secure, modern industrial nodes ✓ Some of the industrial nodes have access to railway lines / sidings ✓ Smaller industrial areas – potentially more niche, clean industries / businesses orientation ✓ Some nodes pose mining related SMME development opportunities, industrial hives, etc. ✓ Localised neighbourhood improvement interventions (streets, storm water, lightning, curbing etc) 	<ul style="list-style-type: none"> ✓ Undermining and dolomite in some areas ✓ Conflict of land uses in terms of future expansion of some of the industrial nodes ✓ Uncontrolled transitional uses and illegal land uses surrounding industrial nodes ✓ Sprawling informal housing ✓ Mining labour force volatility ✓ Limited accessibility of some nodes

11.3 WEST RAND KEY SECTORS SUMMARY

The following table is a summary of the key primary sectors and sub-sectors identified within the West Rand District.

Table 11.2: West Rank Key Sectors

Primary Target Primary Sectors	Primary Target Sub-Sectors
West Rand District	
<ul style="list-style-type: none"> ✓ General Government Services ✓ Finance and Business Services ✓ Transport and Communication ✓ Construction 	<ul style="list-style-type: none"> ✓ None
Merafong City Local	
<ul style="list-style-type: none"> ✓ General Government Services ✓ Transport and Communication ✓ Finance and Business Services ✓ Construction 	<ul style="list-style-type: none"> ✓ None
Mogale City Local	
<ul style="list-style-type: none"> ✓ Utilities ✓ Wholesale& retail Trade, Catering and Accommodation ✓ Finance and Business Services ✓ Transport and Communication ✓ Manufacturing ✓ Community, Social and Personal Services ✓ General Government Services ✓ Construction ✓ Agriculture, Forestry and Fishing 	<ul style="list-style-type: none"> ✓ Radio, TV, instruments, watches and clocks ✓ Electrical machinery and apparatus ✓ Food, beverages and tobacco ✓ Textiles, clothing and leather goods ✓ Wood and paper; publishing and printing ✓ Transport equipment ✓ Petroleum products, chemicals, rubber and plastic
Randfontein Local	
<ul style="list-style-type: none"> ✓ Community, Social and Personal Services ✓ General Government Services ✓ Transport and Communication ✓ Finance and Business Services ✓ Manufacturing ✓ Wholesale& retail Trade, Catering and Accommodation ✓ Utilities ✓ Construction ✓ Agriculture, Forestry and Fishing 	<ul style="list-style-type: none"> ✓ Food, beverages and tobacco ✓ Electrical machinery and apparatus ✓ Radio, TV, instruments, watches and clocks ✓ Textiles, clothing and leather goods ✓ Wood and paper; publishing and printing ✓ Petroleum products, chemicals, rubber and plastic ✓ Transport equipment
Westonaria	
<ul style="list-style-type: none"> ✓ General Government Services ✓ Community, Social and Personal Services ✓ Utilities ✓ Manufacturing ✓ Transport and Communication ✓ Finance and Business Services ✓ Wholesale& retail Trade, Catering and Accommodation ✓ Construction ✓ Agriculture, Forestry and Fishing 	<ul style="list-style-type: none"> ✓ Electrical machinery and apparatus ✓ Radio, TV, instruments, watches and clocks ✓ Food, beverages and tobacco ✓ Textiles, clothing and leather goods ✓ Petroleum products, chemicals, rubber and plastic ✓ Transport equipment ✓ Wood and paper; publishing and printing

Source: Demacon, 2013

Note:

- ✓ In **business terminology** industries in the upper right quadrant are increasing their market share in an expanding market, whereas the industries in the lower right quadrant are losing market share in an expanding market. These sectors represent the primary target sectors within the local economies.
- ✓ The secondary target sectors should represent industries within the upper left quadrant increasing their market share in a declining market.

11.4 WEST RAND POLICY CONGRUENCE SUMMARY

Lessons in economic development world-wide have shown that while anchor projects can result in significant FDI value, the jobs created per rand will be higher where the cluster platform is strong. The region must ensure a fertile environment for the downstream linkages, investment and SMME growth. To generate the largest number of jobs, an investment promotion approach to on-going activity in the targeted region will be substantially strengthened by strong local clusters.

The following short list of potential clusters should be acknowledged in the future development of the West Rand industrial nodes – with the emphasis on potential forward and backward linkages and expansion.

Table 11.3: West Rand Policy Congruence Summary

Development Clusters	Value Adding Propensity	Pollution Probability	Policy Congruence	Probability
Food, beverages and tobacco	Medium	Low/Medium	Yes	High
Textiles, clothing and leather goods	Medium	Low/Medium	No	Medium
Wood, paper, publishing and printing	Medium	Medium/High	Yes	Low
Petroleum products, chemicals, rubber and plastic	Medium	Medium/High	Yes	High
Other non-metal mineral products	Medium	Medium	Yes	Medium
Metals, metal products, machinery and equipment	High	Medium/High	Yes	High
Electrical machinery and apparatus	Medium	Low/Medium	Yes	Medium
Radio, TV, instruments, watches and clocks	Medium	Low/Medium	No	Low
Transport equipment	Medium	Medium	Yes	Medium
Furniture and other manufacturing	Medium	Medium	Yes	Medium
Logistics	Low	Low	Yes	High