CHAPTER 2: ECONOMIC DEVELOPMENT

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2.1 AMENDMENTS AND UPDATES

The industrial development of modern economies almost always starts in cities. When compared to the 2012 MSDF, the revised MSDF seeks to strongly aims to shape the geographical distribution of economic activity, most commonly by developing ‘growth centers’ with strong forward and backward linkages into the local economy with a new and contemporary outlook that is so bold as to suggest a move to focussing on the agricultural sector.

This might be viewed as a move backwards, what with the advent of the Fourth Industrial Revolution and national aspirations of implementing the Smart City concept.

Most spatially targeted policies aim to develop regions that have been economically lagging, and are often explicitly anti-urban, which is at odds with a parallel trend that see increased attention to the role of cities in driving national competitiveness and economic growth.
## 2.2 Informants of Key Data and Indicators

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2.3 BACKGROUND AND POLICY CONTEXT

The Gauteng economy is the driving force behind the South African economy as it is the largest contributor to the national GDP. Furthermore, Gauteng remains the economic and industrial hub of South Africa and the South African Development Community (SADC) region and a significant player in Africa’s rising economic fortunes. During the 2015 State of the Province Address (SOPA), Premier David Makhura emphasized that the Gauteng City Region (GCR) should be integrated globally as a competitive city region where economic activities of different parts of the province complement each other in consolidating Gauteng as economic hub of Africa and an internationally recognised global city region.

The key elements of radical economic and decisive spatial transformation, which will help in addressing the structural problems of the provincial and national economy as outlined by SOPA (2015) are as follows:

• Changing ownership patterns to bring black people into the economic mainstream and creating black industrialists;
• Changing the current industrial structure of our economy to privilege manufacturing and industrialisation through the processing of rich mineral resources and other raw materials locally;
• The development of new modern, innovation-driven industries in the areas of high-tech, biotechnology, the green economy and blue economy;
• Investing in skills development to change the skills profile of the citizenry in line with the new strategic sectors and modern industries;
• Changing income distribution to ensure equity and decent living standards for all;
• Transforming the apartheid spatial economy and human settlement patterns to integrate economic opportunities, transport corridors and human settlements;
• Growing the SMME sector as a key driver of growth and revitalising and mainstreaming the township economy;
• Strengthening the capacity of the state to direct economic development and enhance the competitiveness of strategic economic sectors;
• Significant investment in economic infrastructure as the key stimulator of growth and investment;
• Transformative partnerships between the private and public sector in addressing the developmental challenges outlined in the NDP.

In July 2015, the province released the Gauteng City Region Development Plan (2015-2020). This plan provides a comprehensive overview of the economy and sets policy direction for a sustainable, balanced and equitable economic development. The implementation of this plan and other associated strategies aims to contribute to the diversification of the provincial economy. The subsequent monitoring and evaluation of these strategies will further contribute to enhancing and sustaining national economic output.

In a quest to achieve the goals set out in the National Development Plan, the Gauteng Province has prioritised eleven industrial sectors which will be supported extensively in order to maximise on the potential employment/development multiplier, as well as on the backward and forward linkages identified in these sectors. This sectoral strategy supports labour intensive industries that largely consume skilled, semi-skilled labour by leveraging highly skilled workers in the province. The principal objective of the eleven Industrial sector strategies is to provide the Gauteng Provincial Government and its partners with a structured approach and actionable plans to stimulate, revive and sustain the economic sectors that
would positively affect the industrialisation, transformation and modernization of the economy.

The sector strategies aim to drive the Gauteng economy in a new trajectory with the following outcomes:
• An economy that is modern in that it promotes the diversification of the industrial structure;
• An economy that is inclusive in that it contributes to the revitalisation of township economies and to spatial development;
• An economy that is inclusive in that it expands opportunities for greater ownership and control by previously disadvantaged groups;
• An economy that is inclusive in that it promotes equality through high income distribution; and
• An economy that is inclusive in that it creates more employment

It is important to unpack give a thorough interpretation of the relevant legislative and policy framework to economic development as a backdrop to the chapter.

2.4 NATIONAL POLICIES

• The Constitution of the Republic of South Africa, 1996

The Constitution (Act 108 of 1996) is the cornerstone for all legislation and policymaking in South Africa. In particular, Chapter 7 defines the role of local government in its community. Five objectives of local government are described in section 152:

- To provide democratic and accountable government for local communities.
- To ensure the provision of services to communities in a sustainable manner.
- To promote social and economic development.
- To promote a safe and healthy environment.
- To encourage the involvement of communities and community organisations in the matters of local government.

Furthermore, section 153 stipulates the following developmental duties of all municipalities:
• A Municipality must structure and manage its administration, budgeting and planning processes to give priority to the basic needs of the community, and to promote social and economic development.
• A Municipality must participate in national and provincial development programmes.

• The National Development Plan: A vision for 2030

The National Development Plan (NDP) aims to reduce inequality, eliminate poverty, grow an inclusive economy, enhance state capacity, build capabilities and promote partnerships and leadership throughout society. Further, it aims to achieve decent work and sustainable livelihoods to improve the standard of living and provide a dignified existence for all citizens. The Plan identifies several key drivers to achieve its goals, including the reduction of unemployment. The Plan aims to reduce the unemployment rate to 6% by 2030 through, inter alia, better located and maintained infrastructure, better educational outcomes, a healthier population, social security and lower levels of corruption.

To achieve these outcomes, the NDP has identified several key actions, including the following:
• Drafting a social compact to eradicate poverty and reduce inequality.
• To raise employment and investment.
• Developing a strategy to address poverty.


The primary objective of the NIPF was to provide public guidelines for South Africa’s industrial development. The vision set out by the NIPF included the following objectives:
• To facilitate diversification beyond South Africa’s current reliance on traditional commodities and non-tradeable services. This required the promotion of increased value-addition per capita characterised particularly by movement into non-traditional tradeable goods and services that competed in export markets as well as against imports.
• The long-term intensification of South Africa’s industrialisation process and movement towards a knowledge economy.
• The promotion of a broader-based industrialisation path characterised by greater levels of participation of historically disadvantaged people and marginalised regions in the mainstream industrial economy.
• To contribute to industrial development on the African continent with a strong emphasis on building its productive capabilities

In line with the NIPF, the IPAP aims to expand the country’s value-added sectors, promote labour-absorbing industries, increase economic participation by historically disadvantaged individuals, and expand South Africa’s trade into regional markets. Additionally, the IPAP include the following objectives:
• Strong focus on economic transformation and social inclusion.
• Further emphasis on R&D and a shift towards the knowledge economy.
• Improving economic diversity and providing fundamental support for value-added manufacturing.
• Building regional investment, trade and industrial development.

• Supporting the private sector to prepare for and adapt to the challenges associated with the fourth industrial revolution

• The Spatial Planning and Land Use Management Act (SPLUMA), 2013

SPLUMA provides a framework for all spatial planning and land use management legislation in South Africa. It seeks to promote consistency and uniformity in procedures as well as decision-making in spatial planning across municipal and provincial boundaries. The Act embodies the constitutional imperatives relating to the protection of the environment, property rights, the right of access to housing and the rights to sufficient food and water. The preamble to SPLUMA specifically refers to sustainable development, which requires the integration of social, economic and environmental considerations in forward planning and ongoing land use management.

One of the main objectives of SPLUMA is to provide a framework for spatial planning (SDF) and land use management (LUM) to address past spatial and regulatory imbalances. SPLUMA mandates municipalities to develop a Spatial Development Framework as well as Land Use Management Systems that would see the coordinated - horizontal (with neighbouring municipalities) and vertical (with provincial and national spatial development frameworks) - management of development across space in line with the municipality’s vision for future development.
2.5 PROVINCIAL POLICIES

- Gauteng Vision 2055

Gauteng Vision 2055 is a long-term development plan envisaged by the people who live and work in the Gauteng City-Region (GCR) and who dream of a better future. Equitable growth, sustainable development, good governance, social inclusivity and cohesion have been identified as key pillars that are essential for the journey towards realising Vision 2055 that will shape the work of the Gauteng Provincial Government.

- The Gauteng Township Economy Revitalisation Strategy (TER), 2014

The Township Economy Revitalisation Strategy seeks to revitalise and mainstream the township economy by supporting the development of township enterprises, cooperatives and SMMEs that produce goods and services that meet the needs of the economy. The GPG will meet these objectives by providing training, funding, economic infrastructure and market access for the goods and services produced by the township economy and township enterprises.

- Gauteng Small Medium and Micro Enterprise (SMME) Policy Framework

The Gauteng SMME Policy Framework provides a comprehensive qualitative and quantitative framework for the development of small, medium and micro enterprises (SMMEs) in the Province. The main objective of the Policy Framework is to develop an economic strategy towards accelerated and sustainable shared growth, by using entrepreneurship as a pathway. The Policy Framework recognises the unique roles performed by the SMME sector that contributes to job creation, economic growth and the provision of sustainable livelihoods. It outlines the design, implementation and assessment of mechanisms and processes that support the development of a more competitive and sustainable SMME sector. Further, it encourages collaboration and coordination among the public and private sectors as well as local communities.

- The Gauteng Spatial Development Framework (GSDF), 2016

The GSDF was adopted as an integrated, coherent vision of settlement form, transportation and economic development in Gauteng. However, it was not implemented as intended and revised as GSDF 2030, which aims to direct, guide, focus and align, coordinate and harmonise all development spending in the Province, to ensure rapid, sustainable and inclusive Provincial economic growth and township redevelopment. As a result, it ultimately aims to enable decisive spatial transformation.

The GSDF 2030 is aligned with the Gauteng Ten-Pillar Programme (TMR), the ITMP25, the Provincial Environmental Management Framework, the Provincial Rural Development Plan as well as the GCR IIMP. It also takes into account the UN Sustainable Development Goals 2030 and the New Urban Agenda 2016, the African Urban Agenda 2015, the NDP, the Integrated Urban Development Framework, the Strategic Infrastructure Projects, the Neighbourhood Development Partnership Programme, the

DRAFT TSHWANE MSDF FOR COMMENT SEPTEMBER 2019
Comprehensive Rural Development Programme and the Pro-active Land Acquisition Strategy.

2.6 CITY OF TSHWANE POLICIES

- Tshwane 2030 Development Strategy

Building on the NDP, the Tshwane 2030 Development Strategy espouses the City’s vision for a sustainable and prosperous future.

- The Sustainable and Inclusive Growth Strategy (SIGS), 2016

Through the SIGS, the CoT prioritised selected sectors that were central to its economic development objectives.

The three main sectors identified in SIGS were:

- Knowledge Economy
- Agricultural Production and agro-processing
- Tourism

- The 2019/20 Review of the 2017/2021 Integrated Development Plan (IDP)

The IDP is intended to provide strategic direction and operational planning for the City. On 25 May 2017, the Council adopted the 2017–2021 IDP. It defined the strategic pillars that serve to guide the development agenda for the CoT over a five-year period.

- The Tshwane Growth and Development Strategy (GDS), 2006

The GDS was not intended to cover all aspects of a comprehensive development plan for the CoT, but rather aimed at targeting high-impact, fast track interventions to unlock key enablers of accelerated and shared growth.

- Tshwane Street Trading By-Laws

The Street Trading by-laws allows for the control and regulation of the street traders in Tshwane. The by-laws serve as the regulations governing informal trade in the municipality. It defines street trading as the act of selling or offering for sale or rendering of services in a public road or public place. A street trader must provide a lease agreement in order to operate his business.

- Tshwane Regional Spatial Development Framework (RSDF), 2018

Whilst ensuring alignment with the MSDF, the RSDF provides a specific spatial development framework for each region in within the metropolitan boundary and focuses on spatial transformation, economic transformation and ecological transformation.
2.7 SOCIO-ECONOMIC PROFILE OF TSHWANE

a) Population statistics

Figure 1 below provides an overview of how the total population in Tshwane has been changing over the 2011–2015 period. As indicated in the figure, the total population in Tshwane was 2.8 million in 2011 and has since increased to 3.1 million in 2015. For the period 2011–2015, Tshwane’s population grew by 332 302. It is worth noting however that the total population in Tshwane has been increasing at a declining rate as indicated by the downward sloping graph. What can be said of the City of Tshwane’s population growth statistics is that it continues to be a diverse and culturally vibrant city which can be seen in Figure 2. Which tells us that region 1 has the largest population in Tshwane accounting for approximately 28 percent of the total population. Region 5 and 7 are the least populated regions in Tshwane, accounting for approximately 3.1 and 4 percent respectively in the total Tshwane population. However, region 3, 4 and 5 have witnessed the largest population growth percentage over the 2005 – 2015 period. These were estimated at 4.5 percent, 9.7 percent and 5.1 percent, respectively whilst region 2 experienced the least growth in its population numbers i.e. 1.5 percent over the same period. The large concentration of economic opportunities in region 4, primarily within the financial and professional services sectors, is one potential justification for the large population growth percentage in comparison with all other 6 regions in Tshwane. Later on we see how these statistics also start to explain observed economic activity and justify why certain areas or nodes are better suited which economic activities.

![Graph showing population growth rate 2011-2015](image_url)

**Figure 2.1:** Tshwane’s population and population growth rate, 2011–2015
In short it means that the City will require additional infrastructure in order to provide—amongst other things:

- More water supply
- Increased sewerage treatment
- Improved solid waste management

More electricity to be generated and more roads will be required.

The City will also require additional social facilities to ensure that its growth is sustainable. These infrastructures include:
b) Economic Profile of City of Tshwane

Cities are the driving engines behind economic development and subsequently economic growth. The National Development Plan lays out a roadmap to realise economic emancipation and radical economic growth for the country. Tshwane has founded its economic growth plans against the backbone of the NDP to ensure that it contributes to the economic output of the nation.

Tshwane, like other capital cities around the globe, is a core driver of national growth and development. Tshwane’s economy will have to grow massively if it is to fulfil the NDP targets of eliminating poverty. The City of Tshwane is home to a range of higher-value functions such as corporate headquarters, financial and business services and manufacturing, and high-order public services, such as national departments, universities and major hospitals. To be more specific, the City accommodates more than 30 Johannesburg Stock Exchange (JSE) listed companies, home of national government departments, three Universities, hosts 134 foreign embassies and missions and 26 international organisations, giving it the largest concentration of diplomatic and foreign missions in the world after Washington DC in the USA. (Capital Economic Outlook, 2016)

Over the period 2005 to 2015, the economy of Tshwane registered the highest growth among the metropolitan municipalities in South Africa. The growth trend over this period was quite volatile, reaching both lows of -0.9 percent and highs of +6.2 percent over the 11-year period. Tshwane’s economy outperformed both provincial and national growth averaging at a growth rate of 4.2 percent compared to 3.4 percent in Gauteng and 3.0 percent in South Africa.

In figure 5 we see Tshwane’s Gross Value Add trend over a ten (10) year period. The economy of Tshwane registered the highest growth among the metropolitan municipalities in South Africa.

![Tshwane GVA Growth Trend 2005-2015.](image)
Tshwane plays an important role in the economy of Gauteng. Some of the best performing sectors include community services, finance and transport. The City contributes 9 percent to the South African economy and 25 percent to the economy of Gauteng Province. The City of Tshwane 2030 Sustainable and Inclusive Growth Strategy (SIGS) has been initiated by the City to create specific actions in order to realise the aspirations of the City – in conjunction with the Province and National activities. Later on this document will discuss what economic opportunities in terms of GVA and job opportunities to be created can be found in the figures above.

c) Labour Profile

City of Tshwane recorded average growth in employment of approximately 3.3 percent over the reviewed period. It should be noted that employment growth saw a drastic decline during the global financial crisis period. Tshwane’s informal employment sector was hit hardest by recession period compared with the formal sector, sustaining a negative average growth rate of 2.1 percent compared with a 2.2 percent average year-on-year percentage change in the formal sector employment. Agriculture sector was the hardest hit during the recession period, the sector sustained a 1.8 percent decline in average employment (y/y) over the 2007 – 2010 period.

Figure 2.5: City of Tshwane employment (y/y percentage change), 2005 - 2015 Source: IHS Global Insight 2016

2.8 WHAT ARE THE KEY ECONOMIC DRIVERS FOR THE CITY?

According to the Capital Economic Outlook of 2016/17 the five main sectors in 2015 were community services (32.3 percent), finance (25.1 percent), transport (12.2 percent), Trade (12.4 percent) and manufacturing (9.5 percent). Overall, the significant sectors of growth in Tshwane include government, social and personal services, construction, trade, transport and finance with the green economy and research and innovation and development representing crucial multi-dimensional and dynamic sectors of growth.

Through the envisaged Local Economic Development Strategy and Tshwane’s Sustainable and Inclusive Growth Strategy (SIGS) that was finalised in 2015, there had to be a reprioritisation of the of what the key economic sectors of the city are. They can be listed as:
• Education and the Knowledge Economy;

As a capital city, Tshwane has a distinctive competitive edge to lead the knowledge economy in the country. It hosts four (4) of the seven public higher education institutions and boasts the highest concentration of science councils in the country. With this high concentration of research and academia centers, the City acknowledged the knowledge economy for the future to drive access to education, economic growth and global recognition as an education and research and development (R&D) hub.

• Agriculture and Agro-processing;

Agribusiness is an integral part of economic development in Tshwane. SIGS (2016) identified several strategic objectives that rationalized its focus on agribusiness as:

- Prioritising production enablers.
- Providing enabling infrastructure for production and processing
- Develop and dedicate CoT land for security (poverty alleviation) and high yield increasing productivity and exportable crops
- Provide access to finance
- Improve skills and knowledge base of small-holding black farmers
- Facilitate market access to new geographies both domestically and globally
- Create permanent and seasonal jobs

• Business and Tourism;

The city is on a concerted effort to market the City as a choice location for investments, attracting business and leisure travelers, unlocking new opportunities for emerging entrepreneurs in local travel and tourism services and products.

The City will continue to support traditional sectors, such as the automotive, mining, retail, finance and support services sectors, which already have strong plans and strategies and remain core assets of the City’s economy.

As previously discussed, there is great potential for Tshwane to create additional GVA and jobs over the next 20 years through the SIGS. The numbers are summarised in figure 8 below.
2.9 EXPLORING SOME OF THE KEY ECONOMIC SECTORS IN THE COT AS IDENTIFIED IN SIGS AND OTHER KEY IDENTIFIED POTENTIAL ECONOMIC SECTORS

The Capital Economic Outlook 2016 clearly states that the manufacturing sector is the fourth largest contributor to Tshwane’s economic output. Region 7 boasts the highest contribution for manufacturing, manufacturing contributes 17.9 percent to the regional GVA. Region 7 is zoned as agricultural as it has vast arable land, more than 80 percent of which is used for crop production and livestock. Most manufacturing and distribution and related companies are located at Ekandustria and Bronkhorstspruit. In Region 2 there is a significant concentration of manufacturing, which is the highest concentration across all regions, the region accounts for 15.8 percent of output in this sector. With manufacturing as one of the most prominent sectors in Region 1, owing to the industrial zones (such as the auto cluster in Rosslyn), this sector contributes 12.9 percent to the region 1’s total output. See figure 9.

a) Manufacturing/Business

The manufacturing industry remains an important driver of economic driver in the City of Tshwane, there are regions with relatively small manufacturing. Region 3 is the smallest contributor in terms of GVA contribution by the manufacturing sector. The sector only contributed 7.2 percent to the regional total output. It should be noted that in some regions the sector’s contribution to GVA is less, mainly due to strong growth in sectoral contribution of other sectors and this does not indicate an absolute decline in manufacturing itself.

Figure 2.6: Potential GVA and Job creation over 17 years Source: SIGS
Situated in the north-western part of the City, the region includes agricultural holdings, industrial zones (such as the auto cluster Rosslyn), and residential suburbs and townships. The many low-income settlements make this the most densely populated (1664 p/km²) region in Tshwane at 28%, with the largest youth bulge and with the highest number of persons without an income. The region hosts the Zone of Choice – a strategic investment focus area and a catalyst for development of the northern areas of the City.

When comparing the location quotient of Tshwane to that of Region 1 it can be observed that the more prominent economic activities in the region are manufacturing, electricity, construction, transport and community services. In Region 1 the location quotients of electricity, manufacturing and community services exceeds that of the City of Tshwane average, indicating a concentration of these sectors in this region. It is therefore no surprise that when the Automotive Industry Development Company’s (AIDC) developed the Tshwane Automotive City concept it had the the strong strategic positioning discussed above in mind so as to allow them best deliver on their mandate to support the automotive industry so that is can become globally competitive and therefore chose this location which 6 km North of the Central Business District (CBD) in the heart of zone of choice where most of the automotive chain of suppliers are located. This area was chosen following consideration of a number of potential areas, given given the large amount of land available for development, the existence of three vehicle assemmbles that are already in place and the large number of local and interantional automotive component manufacturers in the area.

Cities always face the challenge of balancing competing uses for land. Manufacturing, in particular, requires large amounts of land for production and warehousing.

It also confers negative externalities including pollution. At the same time, manufacturing has traditionally been a critical driver of economic growth and employment as economies growth through middle income ranks. So land use regulation is a critical strategic tool in economic development planning.
This implies that all automotive related industries are located in a geographic area or ‘Auto City’.

It is not uncommon for component manufacturers to locate in close proximity to Original Equipment Manufacturers (OEMs) that they supply to. The Auto City concept acts as an enabler to ensure critical mass is achieved so as to gain the potential benefits of;

- subsidised utilities,
- reduced rental,
- consolidated logistical flows,
- bulk infrastructure improvements and dedicated logistics hubs;
- not to mention a key attraction for foreign direct investment

This will also establish the Gauteng Province as an ‘area of choice’ for the automotive manufacturing sector. (Gauteng Packaged Opportunities 2013/2014)

The TAC concept aims to emulate well established automotive cities such as Shanghai Automotive Cities in China, Autostad in Germany and Toyota Automotive City in Japan. This development will without a doubt have a tremendous and marked effect on the spatial outlook of the city. It would be in Tshwane’s best interests to keep steady in exploring the TAC as recent research on South Africa’s automotive sector (World Bank, 2016) shows that for every one direct job in automotive manufacturing there are three indirect jobs through backward linkages – most of them coming in services like transport, logistics, and business services.

The automotive and components industry in South Africa is a major contributor to economic development and activity. The highest concentration of automotive and component manufacturers in the country is located at the Automotive supplier Park (ASP) in Rosslyn. The envisaged/planned mixed-use development will include a Rosslyn Shopping Mall, ancillary retail, gated commercial and logistics business park, truck staging and logistic centres, middle income residential development and high density rental units, see figure 10.

Figure 2.8: TAC Development Framework

The main impact’s and considerations on spatial planning and spatial outlook of the CoT that will be effected by the TAC are through the following specific development nodes:
• Logistics node: An advanced logistics and supply chain network in partnership with Transnet
• Commercial and recreation node: Retail and shopping malls, banks and restaurants
• Community and civic node: Residences, parks, public environment and links
• Industrial node: This will include factories to suit customers’ needs.

The manufacturing sector can also support the **township economy** especially since the Gauteng Provincial government has provided financial and non-financial support, assisted with access to markets and invested substantial resources in industrial infrastructure such as agri-parks, industrial parks, and automotive hubs. This is mainly driven through the Gauteng Town Economy Revitalisation Strategy. The City’s land release strategy intends to proactively make available portions of land for business development, especially in townships to advance black economic empowerment and to revitalise the township economy. As part of the city’s business incubation programme to support SMMEs within the automotive industry, the City appointed the Ga-Rankuwa Automotive Co-operative to provide mechanical and autobody repair services to its fleet.

Of relevance to manufacturing, are the Key Enabling Technologies (KETS), identified as knowledge and capital-intensive technologies associated with high research and development intensity, rapid and integrated innovation cycles, high capital expenditure and highly-skilled employment (relevant to the fourth industrial revolution). The six KETs identified are as follows (2018):

- Photonics;
- Industrial biotechnology;
- Nanotechnology;
- Advanced materials;
- Micro-nano electronics; and
- Advanced manufacturing systems.

b) Agriculture and agro-processing

Although agriculture is listed as one of the worst performing sectors in terms of its contribution to the GDP and GVA it is well worth exploring as a source of economic development for the city of Tshwane especially because it has relatively low capital requirements and it will result in improving the lot of the rural population of Tshwane, where more of the poor population typically live. The most important factor however in developing agriculture is that it may drastically slow the move of the poor to the inner city, where infrastructure is already inadequate for the ever growing...
Primary agriculture in the CoT mainly consists of planted crops and vegetables as well as livestock and poultry. Poultry farming contributes almost 40% to agriculture in Tshwane. Overall, the CoT exhibits suitable climatic and soil conditions to expand local agricultural production. Figure 10 is an overview of agricultural and other land uses within the Municipal boundary. Investment in agriculture will thus translate into developmental benefits throughout various value chains (linking the farm to the consumer). Urban Econ, 2019.

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Figure 2.9: CoT Land use profile Source: CoT Spatial Development Framework
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“According to TEDA (2019), the South African agro-processing sector is the second most important manufacturing sector, following the automotive industry, in terms of GVA. Figure 11 provides a spatial presentation of economic and employment contributions within the CoT. It shows that Region 6 is the most dominant region in terms of GVA while Region 5 produces the least. Similar to this, Regions 6 and 5 also provide the most and least employment opportunities for agricultural workers, respectively.
During the survey, it was also noted that Tshwane’s agricultural sector made a significant contribution to informal job opportunities. Some 11% of respondents noted that the productive capacity in their area was ‘very good’ while another 29% rated their land capacity as ‘good’.” (Urban Econ, 2019)

A survey conducted by Urban Econ (2019) found that agri-businesses within Tshwane are mainly involved with the production and/or cultivation of cash crops (such as vegetables and maize) as well as livestock (such as poultry, piggery and sheep farming). Poultry and broiler related agri-businesses are common within the CoT. Commercial farming is mostly practiced towards the eastern part of Tshwane (i.e. the previous Metsweding municipal area), while small scale farming is sporadically practiced throughout the City. Smaller-scale farming in the CoT typically include agricultural holdings, informal and subsistence farmers. In this regard, the survey found that some 37% of agri-businesses provide 1-4 jobs, while another 40% of these enterprises employ between 5 and 10 workers. Only 18% of the agri-businesses surveyed, indicated that they employed more than 10 workers.

In terms of support to small farmers, the survey found that many of these farmers had received agricultural training and/or financial assistance, which was mostly provided by the Gauteng Department of Agriculture and Rural Development (GDARD) as well as the Agricultural Research Council (ARC).

In Tshwane, agro-processing firms are mainly involved with the following value-adding activities:

- Production, processing, and preservation of meat, fish, fruit, vegetables, oils, fats as well as other food and beverage products.
- Manufacture of grain mill products, starches and starch products and prepared animal feeds.
- Spinning, weaving and finishing of textiles as well as the manufacturing of wearing apparel, leather and footwear.
- Manufacture of products of wood as well as paper and paper products.
- Manufacture of basic chemicals (related to agriculture and preservatives).

c) The Green Economy

The Department Environmental Affairs (2009) defines the green economy as a “system of economic activities related to the production, distribution and consumption of goods and services that result in improved human well-being over the long term, while not exposing future generations to significant environmental risks or ecological scarcities”. According the department this implies the decoupling of resource use and environmental impacts from economic growth. It is characterized by substantially increased investment in green sectors, supported by enabling policy reforms. The Green Economy refers to two inter-linked developmental outcomes for the South African economy:

- Growing economic activity (which leads to investment, jobs and competitiveness) in the green industry sector
• A shift in the economy as a whole towards cleaner industries and sectors.

As a result, the CoT has recognised the need to lead and demonstrate initiatives and infrastructure programmes pertaining to the green economy that will embrace low-carbon, climate-resilient and resource-efficient models of development in South African cities.

2.10 CLIMATE RESPONSIVENESS ISSUES

“The CoT regularly experiences the impacts of extreme events such as intense thunder storms (e.g. hail, lightning), flooding, drought and heat waves, which are all costly to the city in terms of human and financial resources and causes extensive damage to infrastructure. As such, these events have direct and indirect impacts on service delivery and economic development” (S.Chademana, 2015:2).

A report prepared for the SACN Programme focusing on the Vulnerability Assessment to Climate Change in the City found that the geographic location of region’s 1 and region 3 fall within the 50 and 100-year flood lines, suggesting that flooding is a potential threat to economic development and service delivery in these two regions.

SMART CITY

In his 2019 State of the Nation Address (SONA) President Cyril Ramaphosa announced that it was time to think about building a “smart city”. He asked the question “has the time not arrived to build a new smart city founded on the technologies of the 4th Industrial Revolution (4IR)?” (SONA, 2019)

Gemalto (2018) defines a smart city as the re-development of an area or city using information and communication technologies (ICT) to enhance the performance and quality of urban services such as energy, connectivity, transportation, utilities and others.

He goes on to say that, a smart city is developed when ‘smart’ technologies are deployed to change the nature and economics of the surrounding infrastructure.

According to Gemalto (2018), a smart city is best described as a framework and a big part of the ICT is an intelligent network of connected objects and machines that transmit data using wireless technology and the cloud.
Gemalto (2018) says that in addition to people, dwellings, commerce and traditional urban infrastructure there are four essential elements to ensure successful smart cities:

- Pervasive wireless connectivity
- Open data
- Security you can trust in
- Flexible monetization schemes

However Williams (2018), states that it is important to note that a smart city can be defined in different ways depending on the level of development, resources and aspirations of its residents.

The ‘smart cities concept’ has emerged a dominant discourse in urban planning. Unfortunately, from a spatial planning perspective it is all good and well to acknowledge the importance of urbanisation for South Africa’s development. However, the MSDF rather interrogates what would be the best approach to addressing the issues of poverty, unemployment, inequality and lack of infrastructure in the City of Tshwane.

It was in 2016, that the Integrated Urban Development Framework (IUDF), which clearly outlined that our national effort and focus should be on transforming the urban spaces and places where most South Africa’s population already lives. As a City we should tread carefully in shifting our focus towards the “new town” city concept of the 1960s and 1970s. Rather we focus on consolidating and improving our urban infrastructure which is already under strain as discussed in further detail in Chapter 6. The city needs to succeed first at promoting integration and densification within our existing urban settlements.

In South Africa there are some examples of failed ‘new city’ proposals such as Wescape in the Western Cape and the Modderfontein New City Project in Johannesburg, Gauteng. Both projects were abandoned for various reasons such as not addressing apartheid legacy spatial planning, nor promoting any kind of renewal but most importantly that they were not underpinned by a distinctive connection to spatial economies.

So the question is, is Tshwane ready to apply this concept when it stands to further entrench spatial segregation and inequality. How best can Tshwane rethink this concept and readapt to suit the needs of its citizens?

The answer to these questions have been answered by the birth of the Rosslyn Hub and Tshwane Automotive City and Rosslyn Hub discussed earlier and the Garankuwa Smart City Development in Tshwane.

“Brendan Falkson, Director of Rosslyn Hub says that Rosslyn, which is already home to four automotive plants such as BMW, Nissan, Ivecoc and Tata, along with an array of automotive suppliers, will aim to emulate well-established automotive cities like those in Spain, China, Germany and Japan. It will create a second ‘CBD’ in the north-west of Tshwane on the doorstep of Garankuwa and Soshanguve, which will be anchored by a labour-intensive automotive manufacturing core that will enable workers to walk to work. Falkson also noted that construction of the K217 road, which runs from north to south between Soshanguve and the N4 highway, will enable greater access into Rosslyn and unlock additional investment opportunities.”(https://www.apiproperty.co.za/news/the-future-looks-bright-for-rosslyn-as-new-development-kick-starts-africas-first-smart-city/)

The Garankuwa Smart City City Development is a mixed-use and income development. The project entails the following:
Planning, development, marketing, sales and transfers of 5,742 affordable housing units including social housing, FLISP housing and bonded housing:

- Planning and development, marketing and sales of retail, office, light industrial and special retail facilities;
- The estimated total investment in the development is R3.556-billion, which will generate the following in terms of local economic development;
- Planning, development, marketing, sales and transfers of 5,742 affordable housing including; social housing, FLISP housing and bonded housing;
- Jobs to be created: 4,161 during development and 222 permanent jobs on completion;
- Target: 2500 youth and 1000 for employment;
- Set-asides for SMME amounting to 35% of the estimated value of the project.

Some of the important questions we need to ask ourselves as planners include:

- Are we facing multiple service-delivery problems that put strain on existing systems?
- Is our municipality laying down roads and sewerage systems, and creating public transport systems, which might benefit from interlinked broadband capability?
- Are our police, hospitals, emergency systems, and clinics connected to provide citizens with the best service, or could they benefit from working together in an interconnected system?
- Do we find pockets of excellence in how we operate against problem areas that would benefit from integration?
- Is the infrastructure in place to help grow universities and businesses, and foster centres of entrepreneurship and new economic sources of growth?
- Do we have the vision and political will to create a Smart City strategy?

4TH INDUSTRIAL REVOLUTION

According to Ntsabo (2019), the fourth industrial revolution (4IR) refers to new ways in which we introduce and use technology into our societies. An example would include robotics, artificial intelligence, and nanotechnology. The 4IR will play a significant role especially in the automotive sector.
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