

Limpopo Development Plan 2020-2025

March 2021

Custodian: Limpopo Office of the Premier

FOREWORD BY THE PREMIER

It is my singular honour to present the Limpopo Development Plan (LDP) for the 6th Administration of the Republic of South Africa (2019-2024). The LDP is the socio-economic growth and development blueprint for the Limpopo Provincial Government. The first edition of the LDP guided the 5th Administration (2014 – 2019) in terms of integrated planning and ensuring the effective and efficient delivery of services.

The 6th Administration edition of the LDP focuses on the mandate to place our Province on a higher economic development trajectory and to recover from the impact that COVID-19 has imposed.

This socio-economic development blueprint that we proudly present to the people of the Province, has an entrenched focus on mining, agriculture and tourism sectors, inclusive of manufacturing, and a biased focus on support for Small, Medium and Micro Enterprises (SMMEs) and Co-operatives.

It is our considered view that this focused approach to economic development will indeed become a game-changer in redefining the economic landscape of the Province. This will certainly help us to build the productive capacity of our economy.

Through this updated edition of the LDP, we reaffirm our commitment to the people of Limpopo; a commitment to change lives for the better. This is our guide and compass as we navigate the journey towards our promised land, the land of the dreams and aspirations contained in the National Development Plan and the Africa Agenda 2063.

We will, accordingly, marshal every effort, skill and commitment toward the task of breathing life into the ideal that a better life for all can, and must, be achieved.

Together we can build the Limpopo we want.



Mr. C.S. Mathabatha
Limpopo Premier

EXECUTIVE SUMMARY

1. THE LIMPOPO DEVELOPMENT PLAN 2020-2025

The Limpopo Development Plan (LDP) is a 5-year Growth and Development Plan that guides the Limpopo Province, in alignment with the National Development Plan (NDP) Vision 2030 and the 5-year NDP Implementation Plan and Medium-Term Strategic Framework (MTSF). This document has been prepared for the current 6th Term of Administration and is referred to as the Limpopo Development Plan 2020-2025. It builds on the achievements and lessons learned from the implementation of the previous LDP, prepared for the period 2014 to 2019. The purpose of the LDP is to address economic growth and integrated development, with the aim of creating an environment that offers opportunities to the people of Limpopo, while sustainably growing the economy through garnering resources from all sectors, public and private.

The development objectives of the LDP 2020-2025 are show in the figure below.



The adopted LDP is the official directive for development policy throughout the Limpopo Province for the period 2020-2025. The Office of the Premier is expected to conduct annual assessments of the LDP, and a mid-term assessment report will be presented to the Executive Council. A substantive review of the LDP will be undertaken in the 2025/26 financial year.

Vision of the LDP 2020-2025

The co-designed vision for the Limpopo Province is:



The Province and its people need to be resilient and adaptable in order to be ready for the reality of 4IR and imperatives of climate change. It acknowledges that by embracing its diverse population, and utilising this diversity, the Province is strengthened; and that only through different perspectives, and by embracing each other's cultures, we can grow.

Legislation and policies

The Office of the Premier is mandated to develop and execute the Limpopo Development Plan. This mandate is supported and informed by Section 125(1) and (2) of The Constitution of the Republic of South Africa (Act No. 108 of 1996).

The LDP 2020-2025 is interconnected with other local, regional, national, continental and global policies, including:

- United Nations Sustainable Development Goals (SDGs)
- Agenda 2063 – The Africa we Want
- National Development Plan 2030
- National Spatial Development Framework (NSDF) (Draft 2019)
- Integrated Urban Development Framework (IUDF)
- Human Settlements Framework for Spatial Transformation and Consolidation 2019
- Medium-Term Strategic Framework (MTSF)
- Limpopo Spatial Development Framework (LSDF)

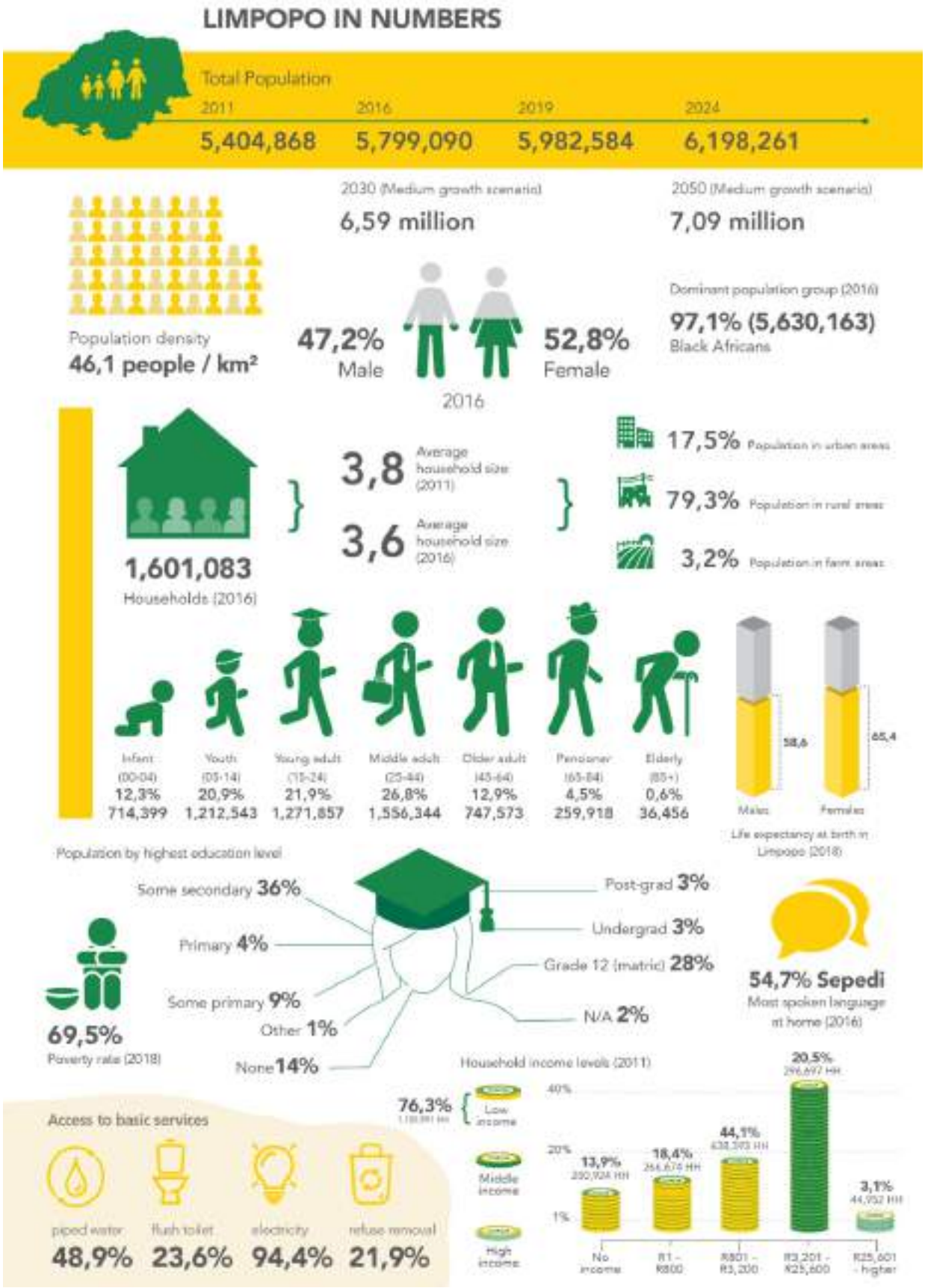
2. LIMPOPO PROVINCE: SPATIAL CONTEXT

The Limpopo Province comprises approximately 10% of the total surface area of South Africa and has five District Municipalities (DMs) and 22 Local Municipalities (LMs). It is also the primary link between South Africa and countries further afield in sub-Saharan Africa. Polokwane is the provincial capital, and approximately 12% of the Province's population reside in urban areas, while the remaining 88% are resident in the rural central and eastern extents of the province.

The settlement pattern of the Limpopo Province is strongly correlated with the spatial distribution of the traditional authority areas across the Province. The Province has 150 traditional authorities that govern 25% of the provincial land. Spatial integration is still a challenge, and the larger concentration of communities remain the furthest from the urban amenities and key corridors.

3. LIMPOPO PROVINCE: SOCIO-ECONOMIC PROFILE

The development of the LDP 2020-2025 requires consideration of population dynamics within the Province. The figure below provides an overview of the current socio-economic status of the Province.



4. LIMPOPO PROVINCE: IMPACT OF CLIMATE CHANGE

The Limpopo Province has been identified as the most vulnerable province in terms of climate change impact, not only in terms of changes in average temperatures and rainfall patterns, but also through changes in extreme events. Limpopo will, in all likelihood, become hotter and drier, with more extreme rainfall events during the summer. Agriculture and food production are considered the sectors most vulnerable to climate risk. Additional adverse external factors include livestock mortality and decreasing water security.

5. LIMPOPO PROVINCE: CURRENT STATE OF THE ECONOMY

The economy

In 2018, Limpopo's Gross Domestic Product (GDP) totalled R359,885 million at current prices, contributing 7.4% to the total economy of South Africa. In the period 2007-2018, the provincial economy was growing at an average growth rate of 1.3%. This low economic growth rate is insufficient to sustain the growing population and the creation of much-needed jobs.

Moreover, the current economic outlook is underscored by the devastating implications of COVID-19, the country's economy descending into a technical recession during the fourth quarter of 2019, as well as the sovereign credit downgrade by three major credit rating agencies, and restricted fiscal conditions.

The provincial economy remains dominated by the tertiary sector, contributing almost 60% of the Province's total GDP in 2018. In terms of industries, mining (27.8%), general government services (19.9%), and trade, catering and accommodation (15.2%), were the highest contributors to the Province's economy. This is indicative of a concentrated economy that requires diversification and contribution from secondary sectors, particularly manufacturing and agro-processing.

The mining sector, followed by the utilities sector (electricity, gas and water), are the most labour-productive sectors in the Province. Unemployment in Limpopo has risen from 18.7% in 2018, and to 27.3% in the fourth quarter (Q4) of 2020.

The provincial location quotient, based on production (GDP) and employment, indicates that the Limpopo Province has a significant comparative advantage in the mining sector.

The LDP focuses on the economic sectors that are currently performing well, as well as on those with current or latent development potential, namely mining, manufacturing, construction, tourism and the waste economy. Underpinning all of these sectors is the imperative to unlocking digital opportunities to propel the economy of the Limpopo Province into the 4th Industrial Revolution (4IR), and to upskill local residents to capitalise on available opportunities.

Social sector

The LDP acknowledges the National Development Plan's prioritisation of the development of children's capabilities from birth to school-going age. The Limpopo Province has over 499,000 people with no schooling, and only 9.2% of the population have attained a higher education.

The LDP considers the current state of education facilities from Early Childhood Development centres to post-school, and lifelong learning opportunities, as well as identifies challenges with regards to access to education.

While average life expectancy has increased steadily since the publication of the National Strategic Plan 2015-2020 (DoH, 2015), South Africa still faces a quadruple burden of disease, namely communicable diseases with maternal, perinatal and nutritional conditions, HIV and TB, non-communicable diseases (NCDs) and injuries.

Over 80% of patients in South Africa are served by the public health service. This places a high case load on the health services and staff.

According to the provincial satisfaction survey (2019), despite general satisfaction levels, certain areas could improve, namely general and emergency healthcare services, accessibility to medical facilities in rural areas, service delivery in hospitals and, in particular, increasing staff numbers to reduce patient waiting times. It is also critical for Limpopo residents to have access to advanced community-based healthcare and advanced healthcare clinics, especially in the prevention and long-term care required for non-communicable diseases such as hypertension and diabetes.

Human settlements sector

The total provincial housing backlog is estimated at 124,849 households (Limpopo MYHSDP, 2020). The bulk of the provincial housing backlog is concentrated in traditional areas. To eradicate the total provincial backlog of 124,849 households by 2024, an average of 24,970 housing opportunities per annum will need to be delivered over the next five years, from 2019 to 2024. This equates to triple the average annual delivery rate of the past five years and emphasises the urgent need to improve the institutional capacity of the government and consider alternative approaches and partnership to deliver human settlements, including improved delivery of social housing, peoples housing process (Zenzeleni) and introducing alternative building technologies. The total estimated housing demand for the period 2019-2024 for the Limpopo Province is 307,844 dwelling units. The demand is mostly concentrated in the Polokwane, Fetakgomo-Tubatse and Musina Municipalities.

The human settlements investment made in the past few years did not realize spatial transformation satisfactorily. The Limpopo Multi-year Human Settlements Development Plan is therefore premised on the need to develop human settlements at spatially targeted areas in the Province, namely the eleven Priority Human Settlements and Housing Development Areas, the five Mining Towns in Distress and the Provincial Growth Points. The spatially targeted approach is in support of long-term sustainability and economic growth, consolidation of investment with spatial transformation as the outcome.

Infrastructure sector

The most enabling factor to allow industrialisation to take off, is investment in infrastructure (both public and private). Infrastructure investment by the government has been on average R7 billion per annum in the last Medium-Term Expenditure Framework (MTEF), totalling R35 billion over three years. The largest proportion of the infrastructure budget is allocated to road infrastructure, education, health and human settlements.

Basic services are the fundamental building blocks of improved quality of life, and adequate supplies of safe water and adequate sanitation are necessary for life, well-being and human dignity. According to the Community Survey 2016, seven in ten households (75.7%) in Limpopo have access to safe drinking water.

A number of projects were planned during the preceding LDP period, but then were either not implemented, or are currently still under construction, which contributed to the water provision regression in the Province.

In 2016, only 23.6% of Limpopo's households (or 377,341 households) had access to a flush toilet, either connected to a public sewerage system or connected to a septic tank or conservancy tank. In 2016, only 67.8% of households had access to pit latrines, and 4.3% still had no access to a toilet facility.

It is clear that water and sanitation infrastructure in the Province is a major concern, and there are very few areas that are not currently affected.

In 2016, a total of 5.6% of households reported that they do not have access to electricity. The proportion of households with access to electricity in the Province ranges from 73.0% to 98.6%. Furthermore, access to the internet is a significant problem, especially when considering the extent of youth and unemployed persons in the Province. This poses a challenge in capitalising on the potential of the 4th Industrial Revolution (4IR) in the Province.

Limpopo's road network consists of some 24,000km of roads, of which almost 14,000 are gravel roads. The extent of roads in a good and very good condition have decreased, and most of the roads were reported to be in a very poor, poor, or fair condition, in 2016.

State of Limpopo's local government

The Auditor General findings of 2019 highlighted a number of governance challenges in the majority of the 27 municipalities of the Province, which must be addressed as a matter of urgency. It was found that contract management, as well as corruption and maladministration were frequently highlighted.

In a quest for improved local governance, the 2019 Presidency Budget Speech ushered in the implementation of the District Development Model (DDM) to strengthen integrated planning, co-ordinated resource allocation, spatial targeting and transformation.

6. LIMPOPO PROVINCE: IMPACT OF COVID-19 PANDEMIC

The COVID-19 pandemic has resulted in a slowdown of the global economy. Countries have applied various measures to stem the tide of the pandemic. South Africa, like many other countries, imposed a national lockdown, coupled with closure of most ports of entry, to limit the infection rate and flatten the curve. During the different levels of lockdown since 27 March 2020, every industry in South Africa was allowed to operate at some level of capacity, varying from 0% (hair dressing services) to 100% (electricity supply).

Measures taken to combat COVID-19 unfortunately do impact negatively on the economy, and this has been witnessed everywhere in the world. The combined effects of COVID-19 and the recession will be a double-edged sword for the South African economy.

Before the COVID-19 pandemic, the long-term global outlook appeared positive, but it is expected that COVID-19 will have a negative impact on the growth outlook in the short-to medium term . According to the International Monetary Fund forecast, the global economy will contract by -3.1% in 2020, from an initial expected growth of 2.9% in 2019.

The Sub-Saharan African economy is forecast to decline by -1.6%. The South African Reserve Bank (SARB) expects GDP in 2020 to contract by -6.1%, compared to the -0.2% expected earlier. It is, however, projected that the economy will recover, and even grow by 2.2%, in 2021, and by a further 2.7% in 2022.

The COVID-19 impact analysis considered the impact of the lockdown period in South Africa, nationally as well as across all provinces. Amongst the ten worst-hit national industries in 2020, are eight manufacturing industries. Most of the industries that seem to be the least affected by the lockdown, are in the services sector. The modelled impact on the Limpopo provincial economy is in line with the national trend, namely that it is expected to bounce back strongly from 2021 onwards. Some industries, such as construction, will likely take longer to recover, while others, such as mining and business services, may even overshoot the old baseline in 2021, and recover swiftly.

From the model results, it was deduced that the Limpopo Province should support its winning industries and strengthen its weaker links. Mining and government services are the two largest industries in Limpopo, and should be supported and strengthened, as well as agriculture. Even though agriculture is not one of the largest industries in the Province, Limpopo does produce 8% of South Africa's agricultural goods. Manufacturing should be placed very high on the provincial development priorities in the longer term, with the aim of becoming a nett exporter. Finally, Limpopo is one of the most beautiful provinces in South Africa. It has all the necessary ingredients to make tourism one of its top three GDP contributors.

7. THE LIMPOPO DEVELOPMENT STRATEGY

The Development Strategy indicates how the Province intends to achieve the Limpopo Vision. Moreover, the Limpopo Provincial Government is committed to co-creating the Province's future with industry/ the private sector, organised labour, civic society and academia. The Limpopo Provincial Government recognises the role of government, including national, provincial and local government, in realising the collective vision for the Province, and is committed to fulfilling its function as facilitator, to create an investment-friendly and investment-ready environment. The successful implementation of the LDP requires a combined effort by all stakeholders.

The LDP 2020-2025 guides integrated planning, resource allocation and service delivery for the 6th Term of Administration.

The Province has aligned its priorities with the 2019-2024 Medium-Term Strategic Framework (MTSF) priorities in order to contribute to the achievement of the broader NDP Vision 2030. For this reason, the LDP Development Strategy is expressed in terms of the following eight priorities, as aligned with the MTSF priorities.

MTSF 2019 – 2024 Priorities	LDP 2020 – 2025 Priorities
1. A capable, ethical and developmental state	1. Transform the public service for effective and efficient service delivery
2. Economic transformation and job creation	2. Transformation and modernisation of the provincial economy
3. Education, skills and health	3. Provision of quality education and a quality healthcare system
4. Consolidating the social wage through reliable and quality basic services	4. Integrated and sustainable socio-economic infrastructure development
	5. Accelerate social change and improve quality of life of Limpopo's citizens
5. Spatial integration, human settlements and local government	6. Spatial transformation for integrated socio-economic development
6. Social cohesion and safe communities	7. Strengthen crime prevention and social cohesion
7. A better Africa and the world	8. Economic transformation and job creation through regional integration

Each Priority comprises several outcomes and key actions, which will lead to the fulfilment thereof. The key actions for each of the eight priorities are listed below. For a full list, refer to section 10 of the LDP.

Priority 1: Transform the public service for effective and efficient service delivery

The Development Strategy is generally focused on improved governance, thereby creating an investment-friendly climate, and prioritising service delivery to Limpopo residents, in a sustainable way. Technical skills, resourcing and partnerships are key to the successful implementation of the LDP. Key actions include:

- Institutionalise and implement the District Development Model
- Implement "Operation Clean Audit"
- Implement the Anti-corruption Strategy of the Limpopo Province and the Integrity Management Unit
- Improve conviction rate on reported corruption among government officials
- Finalise, adopt and implement priority four of the Limpopo Human Resource Development (HRD) Strategy
- Support district and local municipalities to fill strategic positions
- Activate partnership with the Provincial Research and Development Hub (academia and research institutions)
- Develop technical and programme/project management capacity of public servants and institutions

Priority 2: Transformation and modernisation of the provincial economy

With regard to economic sectors, the LDP will focus on the growth and enrichment of the following strengths, and/or potential strengths, of the Province: agriculture, tourism, mining, manufacturing, construction, and the waste economy. The key actions for each sector are listed below.

Agriculture
- Introduce agricultural support programmes to enhance productivity
- Establish linkages between small-scale farmers and retail outlets/factories to support localization
- Partner with academia and research institutions to conduct research, share information and conduct training in climate-smart agriculture
- Fund and implement a climate change awareness and skills-building programme within the Province

Tourism
- Protect and rejuvenate tourism assets
- Commercialise state-owned properties, especially nature reserves

Mining
- Engage meaningfully with mining companies in forums, where relevant, and act as mediator between communities and mining companies
- Support improved efficiencies and competitiveness

Manufacturing
- Increase beneficiation in all sectors; cluster cities, towns, and two SEZs
- Provide support to local SMMEs
- Increase the Green Economy opportunities

Waste economy
- Improve waste management service delivery through partnerships
- Improve compliance and monitoring at licenced waste management to enable better decision-making
- Aggressively ramp up recycling
- Support capitalisation on waste-related economic opportunities

4IR/ ICT
- Install enabling information and communications technology (ICT) network
- Adapt curricula for the digital economy and the 4IR
- Develop and roll-out Limpopo 4IR Strategy

Priority 3: Provision of quality education and a quality health care system

The two social sector pillars of the LDP, health and education, are foundational to addressing well-being and unemployment. The key actions in these sectors are:

Education
- Improve school readiness
- Improve access to education
- Improve education infrastructure
- Encourage lifelong learning

Health
- Intensify health education, promotion and prevention
- Intensify implementation of the 90-90-90 Strategy
- Strengthened implementation of HIV/AIDS and tuberculosis prevention and management programmes
- Improve women, child, maternal health and nutrition (WCMH&N)
- Improve availability of essential medicines
- Improve access to, and quality of, health facilities/services

Priority 4: Integrated and sustainable socio-economic infrastructure development

Good infrastructure forms the backbone of unlocking the latent economic potential of the Province, and to improve the quality of life of residents. Key actions that form part of this Priority are:

- Strengthen the Project Management Capacity
- Plan, schedule and implement strategic and preventative maintenance
- Broaden the energy mix in the Province
- Address compliance at licensed landfill sites
- Implement strategic Infrastructure Projects
- Implement the Limpopo Integrated Infrastructure Master Plan and District Development Model

Priority 5: Accelerate social change and improve quality of life of Limpopo's citizens

Apart from focusing on basic services such as water and sanitation, as well as access to information and communication technology (ICT), the aim is to create an environment that makes room for all nationalities, races, ethnicities, genders, ages, as well as differently-abled persons. There is also a strategic imperative to move people away from a dependence on social grants, towards becoming income-earners. Key actions, in collaboration with the other Priorities, include:

- Implement Limpopo Youth Development Strategy
- Increase roll-out of the Mass Participation Programme
- Implement the Limpopo Crime Prevention Strategy

Priority 6: Spatial transformation for integrated socio-economic development

Due to limited budget, it is vital that projects be prioritised within an agreed and strategic framework. In this regard, the LDP is based on a spatial targeting approach that will guide public investment. This approach will be driven by:

- The 11 declared Priority Human Settlements and Housing Development Areas (PHSHDAs)
- The five prioritised Mining Towns in Distress Municipalities
- The provincial hierarchy of nodes and settlements as identified in the Limpopo Spatial Development Framework (LSDF, 2016)
- Partnering with local government.

Priority 7: Strengthen crime prevention and social cohesion

The safety of our people is very close to our hearts. The LDP will focus on personal safety and wellbeing, through the following key actions:

- Increase policing and prosecution of serious crime
- Implement Integrated Social Crime Prevention Strategy

Priority 8: Economic transformation and job creation through regional integration

Finally, the focus will be on capitalising on the strategic location of the Limpopo Province by means of increased trade with Southern Africa.

- Increase regional exports
- Work with national government to set up an automated licensing system for key export documentation
- Ensure that updated procedures are implemented

8. THE LDP IMPLEMENTATION FRAMEWORK

At the heart of the approach towards effective implementation of the LDP, will be:

1. A cluster-based approach from provincial government in the form of a Programme of Action (POA), driving the LDP Strategy within their realm of influence
2. The strategic imperative to create an enabling environment by providing the requisite infrastructure backbone
3. Mobilisation of and partnership with key stakeholders such as the private sector, civil society, academia, Institution of Traditional Leadership, youth formations and organised labour, towards the realisation of a future filled with hope
4. A strong monitoring and evaluation framework to strengthen accountability

The following nine high-level targets will be measured, to track the implementation success of the LDP:

	Outcome Indicator	Baseline	Target 2020-25
1.	Increased GGP* contribution to national GDP	7.2%	9%
2.	Number of jobs created	448,000	500,000
3.	Increased GDP growth rate	1.4%	2%
4.	Reduction of official unemployment	23.1% (41.1% expanded)	14%
5.	Reduction of income inequality - Gini coefficient from 0.57 to 0.50	0.57	0.50
6.	Reduced % of people living in poverty	52%	20%
7.	Increased matric pass rate from 73.2% to 80%	73.2%	80%
8.	Increased access to basic services:		
	• Improved access to water	74.1%	80%
	• Improved access to sanitation	58.6%	65%
	• Improved access to electricity	92.7%	95%
9.	Reduction of HIV and non-communicable diseases:	51%	50%
	• Reduction of HIV Aids mortality	91-72-89	90-90-90**
	• Premature mortality due to non-communicable diseases	36%	26%

** GGP = Gross Geographic Product*

*** 90% of all people with HIV know their status, 90% of those who know their status and are HIV positive are put on treatment and 90% of those on antiretrovirals are virally suppressed*

Efficient monitoring and evaluation of the implementation of the LDP will assist in increasing accountability of the State to deliver on the promised impact on the lives of people. Equally, it will serve as an early warning system against shortcomings and imperfections during the implementation phase, and provide data for both mid-term and end-of-term reviews of the LDP. The LDP Monitoring and Evaluation Framework is aligned with the Provincial Integrated Planning Framework (PIPF).

9. CONCLUSION

The Limpopo Development Plan 2020-2025 is an integrated socio-economic planning and delivery document for the Limpopo Province. It encapsulates the realities and the aspirations of the provincial citizens. The plan aims to transform the productive potential of the Province, while addressing the inherent socio-economic challenges, with the aim of ensuring sustainable livelihoods.

TABLE OF CONTENTS

1 INTRODUCTION 1

1.1 Background 1

1.2 Purpose of the Limpopo Development Plan 2020-2025 2

2 LEGISLATIVE AND POLICY FRAMEWORKS 3

2.1 Legislative mandate for the Limpopo Development Plan 3

2.2 Alignment with local government 3

2.3 Policy frameworks 4

2.3.1 United Nations Sustainable Development Goals 4
2.3.2 Agenda 2063 – The Africa we Want 4
2.3.3 National Development Plan 2030 5
2.3.4 National Spatial Development Framework (Draft 2019) 6
2.3.5 Integrated Urban Development Framework 8
2.3.6 Human Settlements Framework for Spatial Transformation and Consolidation 2019 8
2.3.7 Medium-Term Strategic Framework 2019-2024 and implications for the Limpopo Province 9
2.3.8 Limpopo Spatial Development Framework 9

3 VISION OF THE LIMPOPO DEVELOPMENT PLAN 10

4 REFLECTION: OVERVIEW OF THE LIMPOPO DEVELOPMENT PLAN 2014-2019 14

4.1 Performance overview 14

4.2 Strategy to deal with movable and immovable asset findings 18

5 SPATIAL CONTEXT 19

5.1 Overview 19

5.2 National Development Plan 21

5.3 National Spatial Development Framework 21

5.4 Limpopo Spatial Development Framework 22

5.5 National Spatial Development Framework implications for Limpopo Province 22

6 SOCIO-ECONOMIC PROFILE 35

6.1 Population and household indicators 36

6.2 Population groups 41

6.3 Home language 41

6.4 Age and gender 41

6.5 Fertility rate 43

6.6 Education 45

6.7 Migration 47

6.8 Urbanisation 49

6.9 Household income and poverty trends 49

6.10 Inequality and levels of human development 52

6.10.1 Gini coefficient 52
6.10.2 Human Development Index 52

7 IMPACT OF CLIMATE CHANGE ON THE LIMPOPO PROVINCE 55

8 CURRENT SECTORAL CONTEXT 66

8.1 Economy 66

8.1.1 Introduction 66
8.1.2 Economic production 66

8.1.3 Informal vs Formal economy 70
8.1.4 Labour Market 73
8.1.5 Economic comparative advantage and diversification 74
8.1.6 Agriculture 77
8.1.7 Mining 82
8.1.8 Manufacturing 89
8.1.9 Construction 99
8.1.10 Tourism 101
8.1.11 Waste economy 116
8.1.12 Regional integration 116
8.1.13 Progression towards unlocking opportunities of the Fourth Industrial Revolution 117
8.2 Social sector 119
8.2.1 Education 119
8.2.2 Health 126
8.3 Limpopo communities 136
8.3.1 Vulnerable individuals, groups and communities 136
8.3.2 Persons with disability 139
8.3.3 Crime trends 140
8.3.4 Level of satisfaction of civic society 141
8.4 Human Settlements 142
8.4.1 Settlement patterns 142
8.4.2 Housing and tenure situation 144
8.4.3 Housing delivery 144
8.4.4 Total housing and land demand 145
8.4.5 Challenges 146
8.4.6 Interventions towards spatial transformation 146
8.5 Infrastructure 153
8.5.1 Basic services 153
8.5.2 Water 153
8.5.3 Sanitation 160
8.5.4 Electricity/Energy 162
8.5.5 Refuse removal 165
8.5.6 Internet 165
8.5.7 Roads and transport 167
8.6 State of the Limpopo District and Local Government 180
8.6.1 Local government finance – the stark reality 180
8.6.2 District Development Model 182
9 PREDICTED IMPACT OF COVID-19 ON LIMPOPO PROVINCE 183
9.1 Global economic outlook 183
9.2 National economic outlook 184
9.3 Provincial economic outlook 186
9.4 Sectoral impact 187
9.4.1 National 187
9.4.2 Provincial 188
9.5 Resultant recommendations 190
10 LIMPOPO DEVELOPMENT STRATEGY 191
10.1 Introduction 191
10.2 Rationale for the Limpopo Development Plan 2020-2025 191
10.3 Priority 1: Transform the public service for effective and efficient service delivery 193
10.3.1 Summary 193
10.3.2 Strategic response 194

10.4 Priority 2: Transformation and modernisation of the provincial economy 198
10.4.1 Summary 198
10.4.2 Strategy and plan 199
10.5 Priority 3: Provision of quality education and a quality health care system 208
10.5.1 Summary 208
10.5.2 Strategy and Plan 209
10.6 Priority 4: Integrated and sustainable socio-economic infrastructure development 212
10.6.1 Summary 212
10.6.2 Strategic response 212
10.7 Priority 5: Accelerate social change and improve quality of life of Limpopo's citizens ... 223
10.7.1 Summary 223
10.7.2 Strategic response 224
10.8 Priority 6: Spatial transformation for integrated socio-economic development 226
10.8.1 Summary 226
10.8.2 Strategic response 226
10.9 Priority 7: Strengthen crime prevention and social cohesion 230
10.9.1 Summary 230
10.9.2 Strategic response 231
10.10 Priority 8: Economic transformation and job creation through regional integration 232
10.10.1 Summary 232
10.10.2 Strategic response 232
11 LDP IMPLEMENTATION FRAMEWORK 234
11.1 Introduction 234
11.2 Alignment of LDP and NDP targets 234
11.3 High-level priority targets of the LDP 2020-2025 235
11.4 Government sector contributions to the LDP 235
11.5 Private sector contributions to the LDP 236
11.6 Integrated planning and co-ordination framework 237
11.6.1 Alignment of provincial strategies and plans with the LDP 237
11.6.2 Strategic budgeting framework 238
11.6.3 IGR structures 238
11.7 LDP Strategic risk management plan 240
11.8 LDP Monitoring and evaluation framework 241
12 CONCLUSION 242
ACKNOWLEDGEMENT 243

LIST OF FIGURES

Figure 1: Development objectives of the LDP 2020-2025
Figure 2: Alignment for integrated implementation
Figure 3: Integrated indicator framework
Figure 4: Regional-rural development model (schematic presentation)
Figure 5: National Spatial Development Framework: The Ideal Post-Apartheid National Development Pattern
Figure 6: Integrated Urban Development Framework strategic priorities
Figure 7: Locality and demarcation of districts and local municipalities, Limpopo Province
Figure 8: Limpopo Spatial Development Framework: composite layout, 2016
Figure 9: LSDF: current planning for Sub-frame 1: Inter-Regional Connectivity
Figure 10: LSDF: current nodal hierarchy
Figure 11: LSDF: agricultural land capability
Figure 12: LSDF: current horticulture clusters
Figure 13: LSDF: mineral potential
Figure 14: LSDF: critical road and rail networks
Figure 15: Limpopo Province: socio-economic overview
Figure 16: Population and household distribution per district, 2016
Figure 17: Limpopo Province: spatial representation of 2011-2030 population change (medium growth)
Figure 18: Limpopo Province: spatial representation of 2030 population estimate (medium growth)
Figure 19: Limpopo: age gender pyramid, 2018
Figure 20: Limpopo: age structure per geography type, 2016
Figure 21: Total fertility rate by province, 2018
Figure 22: Limpopo: adult population by highest educational level (age 20+), 2016
Figure 23: Limpopo: net migration 2016-2021 as a sending region
Figure 24 Province of previous residence, 2016
Figure 25: Limpopo: household income levels, 2011
Figure 26: Limpopo: poverty numbers per mesozone, 2011
Figure 27: Limpopo: Gini coefficient, 2018
Figure 28: Limpopo: Human Development Index
Figure 29: Limpopo: change in extreme rainfall days by 2050
Figure 30: Limpopo: change in annual rainfall by 2050
Figure 31: Limpopo: change in very hot days by 2050
Figure 32: Limpopo: change in maximum temperatures by 2050
Figure 33: Limpopo: flood risk index 2016
Figure 34: Limpopo: drought tendency 2015-2044
Figure 35: Limpopo: primary projected climate features
Figure 36: Limpopo Province's contribution to the National GDP per annum (current prices), 2007 - 2018
Figure 37: Limpopo growth rate (constant 2010 prices), 2007 - 2018
Figure 38: Industry contribution to Limpopo's total GDP (current prices), 2018
Figure 39: South African SMME distribution
Figure 40: South African employment per sector, 2018
Figure 41: Limpopo: provincial TRESS Index, 2014 to 2018
Figure 42: Limpopo TRESS index, 2017
Figure 43: Limpopo's contribution to the national agricultural sector per annum (current prices), 2007 - 2018
Figure 44: Agricultural sector contribution to Limpopo's total GDP (current prices) per annum, 2007- 2018
Figure 45: Limpopo: agricultural sector economic production, 2016
Figure 46: Limpopo: agricultural cultivation
Figure 47: Limpopo's contribution to the national mining sector per annum (current prices), 2007 - 2018
Figure 48: Mining sector contribution to Limpopo's total GDP (current prices) per annum, 2007 - 2018
Figure 49: Limpopo's mining sector annual growth rate (constant 2010 prices), 2007 - 2018
Figure 50: Limpopo Province's mining sector economic production, 2016
Figure 51: Limpopo municipalities with high dependence on mining, 2013
Figure 52: Limpopo's contribution to the national manufacturing sector per annum (current prices), 2007 - 2018

Figure 53: Manufacturing sector contribution to Limpopo's total GDP (current prices) per annum, 2007 - 2018
Figure 54: Limpopo's manufacturing sector annual growth rate (constant 2010 prices), 2007 - 2018
Figure 55: Limpopo: manufacturing sector economic production, 2016
Figure 56: Limpopo's contribution to the national construction sector per annum (current prices), 2007 - 2018
Figure 57: Construction sector contribution to Limpopo's total GDP (current prices) per annum, 2007 - 2018
Figure 58: Limpopo's construction sector annual growth rate (constant 2010 prices), 2007 - 2018
Figure 59: Tourism attractions in Limpopo: nature, history, culture and food
Figure 60: Tourism attractions in Limpopo: tourism focus areas
Figure 61: International tourist arrivals to Limpopo over 5 Years
Figure 62: Domestic tourist arrivals, three-year comparison
Figure 63: Limpopo tourism value chain
Figure 64: Strategic recommendations to facilitate tourism sector recovery
Figure 65: Metrics to measure 4IR-readiness
Figure 66: Limpopo broadband network connected sites
Figure 67: Limpopo: Grade R - areas with the largest unserved Grade R demand (2011) combined with proximity calculations
Figure 68: Limpopo: primary school - areas with the largest unserved demand (2011) combined with proximity calculations
Figure 69: Limpopo: secondary school – areas with the largest unserved demand (2011) combined with proximity calculations
Figure 70: Healthcare facilities in Limpopo (10km radius)
Figure 71: Limpopo: COVID-19 Transmission Potential Indicator
Figure 72: Limpopo: COVID-19 Health Susceptibility Indicator
Figure 73: Limpopo: COVID-19 Vulnerability Index Indicator
Figure 74: Percentage distribution of main sources of household income by province, 2018
Figure 75: Limpopo boundaries and settlement patterns
Figure 76: Limpopo Human Settlements Spatial Targeting Areas
Figure 77: Eastern Escarpment Transformation Corridor
Figure 78: Limpopo: distribution of households with water interruptions in the last 3 months
Figure 79: Limpopo: water supply infrastructure at 2015 (majority of settlement)
Figure 80: Limpopo: settlement level overall water needs categorisation
Figure 81: Limpopo: services infrastructure - water treatment works
Figure 82: Limpopo: vulnerability to operation and maintenance of assets
Figure 83: Limpopo: percentage of households with no access to electricity, 2016
Figure 84: Limpopo: percentage of households with access to electricity, 2016
Figure 85: Main supply of electricity in Limpopo, 2016
Figure 86: Limpopo: prevalence of households with no refuse removal facilities by district, 2016
Figure 87: Limpopo: percentage of households with access to the internet, 2016
Figure 88: Main transport infrastructure network of Limpopo Province, 2016
Figure 89: Average daily traffic (ADT) in Limpopo Province, 2016
Figure 90: Average daily truck traffic (ADTT) in Limpopo Province, 2016
Figure 91: Road condition of paved network in Limpopo Province, 2016
Figure 92: Road condition of unpaved network in Limpopo Province, 2016
Figure 93: Public transport corridors in Limpopo Province
Figure 94: Freight corridors in the Limpopo Province
Figure 95: The impact of COVID-19 on the global economic outlook
Figure 96: South African economic growth projection, 2011 to 2022
Figure 97: Employment per province 2020: Q2
Figure 98: Percentage deviations from the baseline in GDP expenditure variables
Figure 99: Percentage deviations from the baseline in Limpopo's GDP expenditure variables
Figure 100: Percentage deviation from the baseline for three of Limpopo's largest industries
Figure 101: LDP priorities 2020-2025 for the Province
Figure 102: Limpopo: levels of transport interventions/development

LIST OF TABLES

Table 1: Overall performance of the Province in terms of the LDP 2014-2019 development targets
Table 2: Synopsis of trend analysis of audit outcomes
Table 3:Provincial and district population and household indicators, 2011 and 2016
Table 4: Limpopo Province: population and household projections 2019 to 2024
Table 5: Population groups at provincial and district level, 2016
Table 6: Limpopo: age structure per geography type, 2016
Table 7: Limpopo Province: Age-Specific Fertility Rate per district and municipality
Table 8: Limpopo: comparison of level of education at district level, 2011 and 2016
Table 9: Limpopo: highest level of education per district and municipality, 2016
Table 10: Limpopo: correlation between low levels of education and high incidences of teenage pregnancies
Table 11: Limpopo Province labour productivity, 2014 - 2018
Table 12: South African labour force characteristics
Table 13: South African employment per industry (‘000)
Table 14: Limpopo: provincial location quotient
Table 15: Limpopo Province: major mining investment projects for the period 2020 to 2025
Table 16: Interventions to enhance the contribution of mining to sustainable development in Limpopo Province
Table 17: Mega-industrialisation projects
Table 18: High-growth catalytic projects
Table 19: Agro-processing projects
Table 20: Limpopo mega local economic development projects
Table 21: Industrial sector support programmes
Table 22: Limpopo Province: enabling environment for industrialisation
Table 23: Description of the six Limpopo tourism clusters
Table 24: Priority recovery interventions for each of the six Limpopo tourism clusters
Table 25: Limpopo: attendance of educational institutions among Born-free Millennials aged 19–24 years, by province, 2018
Table 26: Public TVET colleges in the Limpopo Province
Table 27: Limpopo: number of social grants by type, as at the end of April 2020
Table 28: Limpopo: child population (0-4 years) 2019
Table 29: Limpopo: Proportion of youth population, 2016
Table 30: Limpopo: Proportion of adult population, 2016
Table 31: Limpopo: Persons with disability
Table 32: PHSHDAs of Limpopo per district and local municipality
Table 33: Limpopo household access to piped (tap) water
Table 34: Limpopo: household access to toilet facilities, 2011 to 2016
Table 35: Limpopo: traffic per functional class
Table 36: Limpopo Province: public transport projects (2018 to 2025)
Table 37: Freight corridor challenges in Limpopo Province
Table 38: Percentage deviations from the baseline in Limpopo GDP expenditure variables
Table 39: List of worst-performing industries in 2020 and 2027 (figures indicate cumulative industry growth rates below the baseline %)
Table 40: List of best performing industries in 2020 and 2027
Table 41: Worst-performing industries in 2020 and 2027 for the Limpopo Province
Table 42: List of best-performing industries in 2020 and 2027 in the Limpopo Province
Table 43: MTSF and LDP alignment for the Limpopo Province
Table 44: SANRAL budget for road interventions in the Limpopo Province
Table 45: Limpopo Province: summary of the infrastructure payments and estimates by vote
Table 46: Limpopo Province: summary of provincial infrastructure payments and estimates by category
Table 47: Macro-economic outcomes (2020-2025)
Table 48: High-level priority targets
Table 49: LDP Strategic Risk Management Plan 2020-2025

LIST OF ABBREVIATIONS AND ACRONYMS

Abbreviation/Acronym	Definition
4IR	Fourth Industrial Revolution
AA	Anglo American
AAP	Anglo American Platinum
ABET	Adult Basic Education and Training
AC	Alternating Current
ADT	Average Daily Traffic
ADTT	Average Daily Truck Traffic
AFS	Available-for-sale
AGSA	Auditor-General of South Africa
AI	Artificial Intelligence
AP	Agri-Park
APP	Annual Performance Plan
ART	Antiretroviral Therapy
ASFR	Age-Specific Fertility Rate
AU	African Union
AVR	Audio Visual Remand
BABS	Bioprospecting Access and Benefit Sharing
CAGR	Compound Annual Growth Rate
CBA	Critical Biodiversity Area
CBO	Community-Based Organisation
CDIDF	Climate Resilient Infrastructure Development Fund
CHW	Community Health Worker
CNDC	Community Nutritional Development Centre
CoGHSTA	Co-operative Governance, Human Settlements and Traditional Affairs
COGTA	Department of Co-operative Governance and Traditional Affairs
COPC	Community oriented primary care
COVID-19	Corona Virus Disease of 2019
CPF	Community Police Forum
CPT	Co-Trimoxazole Preventative Therapy
CPTED	Crime Prevention through Environmental Design
CRU	Community Residential Units
CSG	Child Support Grant
CSIR	Council for Scientific and Industrial Research
CWP	Community Work Programme
CYCC	Child Youth Care Centres
DDM	District Development Model
DEFF	Department of Environment, Forestry and Fisheries
DG	Disability Grant
DGP	District Growth Point
DIC	Drop in Charges
DM	District Municipality
DMRE	Department of Mineral Resources and Energy
DOH	Department of Health
DRC	Democratic Republic of Congo
DSBD	Department of Small Business Development
DSD	Department of Social Development
DST	Department of Science and Technology
DTI	Department of Trade and Industry
DVA	Domestic Violence Act
DWS	Department of Water and Sanitation
FCG	Foster Child Grant

Abbreviation/Acronym	Definition
ECD	Early Childhood Development
ECD	Enterprise Creation for Development
EIA	Environmental Impact Assessment
EPIP	Environmental Protection and Infrastructure Programme
EPHP	Enhanced People's Housing Process
ESD	Enterprise Supplier Development
EXCO	Executive Council
FHI	Flood Hazard Index
FLISP	Finance Linked Individual Subsidy Programme
FOSS	Free and Open-Source Software
FY	Financial Year
GAAL	Gateway Airport Authority Limited
GDP	Gross Domestic Product
GDPR	Gross Domestic Product per Region
GGP	Gross Geographic Product
GHS	General Household Survey
GIS	Geospatial Information System
HCP	Healthcare Personnel
HDI	Human Development Index
HIGCP	High Impact Growth Catalytic Projects
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome
HoD	Head of Department
HRD	Human Resource Development
HSS	Housing Subsidy System
IAP	Implementation Action Plan
IBMS	Integrated Border Management Strategy
ICT	Information and Communication Technology
IDC	Industrial Development Corporation
IDP	Integrated Development Plan
iDEW	Infectious Diseases Early Warning System
IGR	Intergovernmental relations
ILO	International Labour Organisation
IMF	International Monetary Fund
IMR	Infant Mortality Rate
INEP	Integrated National Electrification Programme
IoT	Internet of Things
IPAP	Industrial Policy Action Plan
IRDP	Integrated Residential Development Programme
IUDF	Integrated Urban Development Framework
IWMP	Integrated Waste Management Plan
JCPS	Justice, Crime Prevention and Security
KNP	Kruger National Park
LDARD	Limpopo Department of Agriculture and Rural Development
LDP	Limpopo Development Plan
LDP IAP	Limpopo Development Plan Implementation Action Plan
LEDA	Limpopo Economic Development Agency
LEDET	Limpopo Department of Economic Development, Environment and Tourism
LGB	Limpopo Gambling Board
LIMMP	Limpopo Mining and Minerals Processing
LIPSA	Limpopo Provincial Skills Academy
LM	Local Municipality
LQ	Location Quotient
LSDF	Limpopo Spatial Development Framework

Abbreviation/Acronym	Definition
LTA	Limpopo Tourism Agency
LWUA	Local Water Utilities Administration
MCWAP	Mokolo Crocodile West Augmentation Phase
MDG	Millenium Development Goal
MDR-TB	Multi-drug-resistant TB
MEC	Member of the Executive Council
MFMA	Municipal Finance Management Act
MIG	Municipal Infrastructure Grant
MNE	Multi-National Enterprise
MMS	Middle-management Service
MPAC	Municipal Public Accounts Committee
MRF	Material Recovery Facility
MSA	Municipal Structures Act
MST	Maths, Science and Technology
MSW	Municipal Solid Waste
MTEF	Medium-Term Expenditure Framework
MTSF	Medium-Term Strategic Framework
MVP	Minimum Viable Product
MYHSDP	Multi-Year Human Settlements Development Plan
MYPE	Mid-Year Population Estimate
NACH	National Anti-Corruption Hotline
NAWONGO	National Association of Welfare Organisations and Non-Governmental Organisations
NCS	National Core Standards
NCD	Non-communicable diseases
NDP	National Development Plan
NDPG	Neighbourhood Development Partnership Grant
NHI	National Health Insurance
NIBUS	National Informal Business Upliftment Strategy
NICC	National Institute of Communicable Diseases Control
NPA	National Prosecuting Authority
NQF	National Qualification Framework
NSDF	National Spatial Development Framework
NSF	National Skills Fund
NSNP	National School Nutrition Programme
NTSS	National Tourism Sector Strategy
NWWTF	Northam Wastewater Treatment Facility
O&M	Operation and Maintenance
OAG	Old Age Grant
OEM	Original Equipment Manufacturer
OHS	Occupational Health and Safety
ORWRDP	Olifants River Water Resource Development Projects
PAN	Protected area network
PA	Protected Area
PDAC	Prospectors and Developers Association of Canada
PDI	Previously Disadvantaged Individual
PFMA	Public Finance Management Act
PGMs	Platinum Group Metals
PGP	Provincial Growth Point
PHSHDA	Priority Human Settlements and Housing Development Areas
PIPF	Provincial Integrated Planning Framework
PMU	Project Management Unit
POA	Programme of Action
PPP	Public–Private Partnership

Abbreviation/Acronym	Definition
PPE	Personal Protective Equipment
Q	Quarter
QC	Quality Control
QLFS	Quarterly Labour Force Survey
R&D	Research and Development
RDP	Reconstruction and Development Programme
RAAVC	Revitalisation of Agriculture and Agro-processing Value Chain
RAL	Roads Agency Limpopo
RDP	Reconstruction and Development Programme
RBIG	Regional Bulk Infrastructure Grant
RETM	Rural Economic Transformation
RISDP	Regional Integrated Strategic Development Plan
S&T	Science and Technology
SADC	South African Developing Community
SADC	Southern African Development Community
SAFCOL	South African Forestry Company Limited
SAI	Supreme Audit Institution
SALGA	South African Local Government Association
SANDF	South African National Defence Force
SANPARKS	South African National Parks
SANRAL	South African National Roads Agency SOC Limited
SAQA	South African Qualifications Authority
SARB	South African Reserve Bank
SASSA	South African Social Security Agency
SAT	South African Tourism
SAWIS	South African Waste Information System
SDF	Spatial Development Framework
SDG	Sustainable Development Goal
SEDA	Small Enterprise Development Agency
SERO	Socio-Economic Review and Outlook
SET	Science, Engineering and Technology
SETA	Services Sector Education and Training Authority
SEZ	Special Economic Zone
SGB	School Governing Body
SIC	Standard Industrial Classification
SIPs	Strategic Infrastructure Projects
SITA	State Information Technology Agency
SLP	Social and Labour Plans
SMME	Small, Medium and Micro Enterprise
SMS	Senior-management Service
SONA	State of the Nation Address
SOPA	State of the Province Address
SPLUM	Spatial Planning and Land Use Management
SPLUMA	Spatial Planning and Land Use Management Act
SPS	Security protective service
SPTN	Strategic Public Transport Network
SSA	State Security Agency
StatsSA	Statistics South Africa
STEM	Science, Technology, Engineering and Mathematics
SWSA	Strategic Water Source Area
TB	Tuberculosis
TBC	To Be Confirmed
TFCA	Transfrontier Conservation Areas
TFP	Transfrontier Park

Abbreviation/Acronym	Definition
TFP	Total factor productivity
TIA	Technology Innovation Agency
TIMSS	Trends in International Mathematics and Science
TUT	Tshwane University of Technology
TVET	Technical and Vocational Education and Training
U5MR	Under-5 Mortality Rate
UISP	Upgrading of Informal Settlements Programme
UHC	Universal Healthcare Coverage
UL	University of Limpopo
UN	United Nations
UNDP	United Nations Development Programme
UNIVEN	University of Venda
UNISA	University of South Africa
UNWTO	United Nations World Tourism Organisation
UP	University of Pretoria
USAASA	Universal Service and Access Agency of South Africa
WC	Water Conservation
WCD	Water Conservation and Demand
WCMH&N	Women, Child, Maternal Health and Nutrition
WHO	World Health Organisation
WIT	Women in Tourism
WSA	Water Service Authority
WSIG	Water Services Infrastructure Grant
WVG	War Veteran Grant
WTW	Water Treatment Works
WWTW	Wastewater Treatment Works
ZCC	Zion Christian Church

1 INTRODUCTION

1.1 Background

The Limpopo Development Plan (LDP) is a 5-year overarching Growth and Development Plan that aligns the contribution of the Limpopo Province with the National Development Plan (NDP) Vision 2030 imperatives, as well as with the execution of the 5-year NDP Implementation Plan and Medium-Term Strategic Framework (MTSF) priorities and targets of the 6th Term of Administration. The Limpopo Development Plan 2020-2025 builds on the achievements and lessons learned from the implementation of the LDP 2014-2019.

The LDP is designed to marshal resources from all sectors, both public and private, towards addressing economic growth and integrated development in the Limpopo Province. It thus creates a platform for the constructive and active participation of the private sector, civil society and organised labour, towards the achievement of provincial growth and development objectives, with the goal of promoting higher standards of living for the citizens of Limpopo.

The LDP seeks to ensure that government resources, efforts and energy are channelled towards creating an enabling environment, offering opportunities to the people of the Limpopo Province to become active beneficiaries of sustainable growth and development, which can improve their quality of life.

Equally, the LDP serves as a blueprint and framework for Strategic Plans and Annual Performance Plans of provincial departments, District-Wide IDPs or One Plans, and Integrated Development Plans of districts and local municipalities, as it delineates the provincial contribution towards the implementation of goals and targets spelled out in national strategies and sector plans.

The LDP is also an elaboration of the adopted international and national policy frameworks that provide a clear vision for growth and development. It espouses the need for meaningful partnership amongst all stakeholders, if growth and development are to be realised in the Limpopo Province.

Development is defined as broad-based improvements in the standard and quality of people living in Limpopo, to which all institutions, including government, business, organised labour and citizens, contribute. Growth in economic output, the provision of infrastructure for social and economic development, job creation, access to adequate public services, and environmental management, are all essential instruments to achieve sustainable development. The outcome of such sustainable development will be the reduction of unemployment, poverty and inequality.

The Limpopo Province is bracing itself to consolidate the gains brought about by the democratic dispensation and achievements achieved during the 5th Term of Administration. These gains will further enhance economic development, with a focus on industrialisation and value-adding, implementing measures that promote job creation, as well as addressing social development through the implementation of the LDP 2020-2025.

The LDP 2020-2025 is being finalised amid the unprecedented Corona virus (COVID-19), which has been declared a pandemic by the World Health Organisation (WHO), has created social and economic crises throughout the world at a scale last seen during the 1930s Great Depression. The full impact of the virus is not yet known. However, experts estimate that the global economy will register negative growth. For example, the IMF, in January 2020, expected the global income to grow by 3%. However, post COVID-19 it is projected to decrease by 3% or more.

In South Africa, the situation may be dire, as the economy was still recovering from the 2008-09 Great Recession, riddled with the State Capture chronicles, and was then downgraded to sub-investment level on the eve of the COVID-19 pandemic outbreak and the subsequent national lockdown implemented to limit the rate of infection. It is thus estimated that the economy will register negative growth, the rate of unemployment may increase substantially, and inequality will widen due to the disproportionate impact of COVID-19 on semi- and unskilled workers, on small and medium enterprises and on the most vulnerable groups of society. The

Province will focus, in the short term, on recovering from the impact of COVID-19, and will use the recovery to establish future opportunities in 4IR advancement and implementation of its industrialisation strategy.

1.2 Purpose of the Limpopo Development Plan 2020-2025

The purpose of the LDP 2020-2025 is to outline the contribution of the Limpopo Province to the National Development Plan (NDP), to provide a framework for the strategic plans of provincial government departments and municipalities, and to create a structure for the constructive participation of private-sector business and organised labour and citizens, towards the achievement of the provincial growth and development objectives.

The people of Limpopo desire a future state that is peaceful and prosperous and that contributes toward an improved quality of life. This can be achieved through the implementation of social and economic programmes that result in the achievement of the development objectives shown in Figure 1~~Figure 1~~~~Figure 1~~ below.



Figure 1: Development objectives of the LDP 2020-2025

The Limpopo Development Plan 2020-2025 is based on lessons learnt from the implementation of previous Limpopo Strategies and Plans, the LDP Mid-Term Review, and the 25-Year Review, in a quest to attain National Development Plan (NDP) Vision 2030 objectives, to implement Medium-Term Strategic Framework (MTSF) priorities (national and provincial), and to align with the State of the Nation Address (SONA) and State of the Province Address (SOPA) pronouncements. It is critical that the various national, provincial and local plans, including the District Development Model imperatives and resource allocation, should be aligned towards a shared vision for the Limpopo Province.

This document is the culmination of workshops at different levels of government, and with private-sector stakeholders throughout the Limpopo Province. Specialist input was provided by responsible departments and other organisations through a process facilitated by the Office of the Premier. Support was provided to the Office of the Premier by a core interdepartmental team of officials. The Limpopo Planning Forum, the Premier's

Advisory Council, the Mining Round Table, academia and civil society. All the specialist input was aimed at achieving the outcomes of the National MTSF for 2020-2025, with specific reference to Limpopo.

Upon its adoption by the Executive Council, this LDP becomes the official directive for development policy throughout the Province for the period 2020-2025. The Office of the Premier will be expected to conduct annual assessments of the LDP, and a mid-term assessment report will be presented to the Executive Council. A substantive review of the LDP will be undertaken in the 2025/26 financial year.

2 LEGISLATIVE AND POLICY FRAMEWORKS

The section that follows describes the legislative mandate for the Limpopo Development Plan, as well as the policy imperatives from the national policy frameworks.

2.1 Legislative mandate for the Limpopo Development Plan

The following acts provide the legislative mandate, as well as the framework, for the development of the Limpopo Development Plan.

The Constitution of the Republic of South Africa (Act No. 108 of 1996) is the supreme law of the country. Section 40(1) establishes three spheres of government, namely national, provincial and local government, that are “distinctive, interdependent and interrelated”.

Section 125(1) and (2) vest the authority of “(d) developing and implementing provincial policy”, “(e) co-ordinating the functions of the provincial administration and its departments” in the Premier, together with members of the Limpopo Province’s Executive Council.

The Constitution therefore establishes the foundation for intergovernmental co-ordination and collaboration and provides that the role of the provincial government is developing and implementing policy for its specific area of jurisdiction.

Furthermore, the Inter-Governmental Framework Act (No.13 of 2005) establishes a framework for national, provincial and local government to promote and facilitate intergovernmental relations. It enjoins all spheres of government to provide effective and efficient, transparent, accountable and coherent governance for the Republic of South Africa, to secure the well-being of the people and the progressive realisation of their constitutional rights.

2.2 Alignment with local government

One of the key responsibilities attributed to provincial government by the White Paper on Local Government (1998), is the monitoring of local government to ensure that high standards of public service and good governance are maintained. However, it emphasises that this function must be conducted in ways which empower local government, and do not impede its functions.

The Municipal Structures Act (No. 117 of 1998) provides for the establishment of municipalities, and defines the various types, categories, and appropriate division of functions and powers between categories, of municipalities. Furthermore, it regulates the internal systems, structures and office-bearers of municipalities and provides for appropriate electoral systems. It therefore defines both district and local municipalities and determines their respective functions.

The Municipal Systems Act (MSA) (No. 32 of 2000) follows on from the Municipal Structures Act, giving the latter functional content. The Act defines the legal nature of a municipality and clarifies its executive and legislative powers.

Importantly, the MSA requires the compilation of Integrated Development Plans (IDPs), and each municipal council is required by the MSA to adopt a single strategic plan at the start of its elected term. Furthermore, Section 24 of the MSA emphasises that municipal planning must be aligned with, and must complement, the development plans and strategies of other affected municipalities and other organs of state. IDPs are the main strategic planning instruments for municipalities, guiding all decisions on development.

To ensure that the LDP 2020-2025 is a live document that actively guides the integrated development of the Province, it has been fully aligned with all the relevant local government plans and strategies. It will be imperative for local government to utilise this document as a basis for the development of any further or new strategies, plans or frameworks.

2.3 Policy frameworks

The interconnectedness between the LDP and other local, regional, national, continental and global policies, is shown in Figure 2, and discussed in more detail in the succeeding sections of this document. The sections further aim to unpack the implications of the policy imperative, and how it applies to the development of the Limpopo Province.

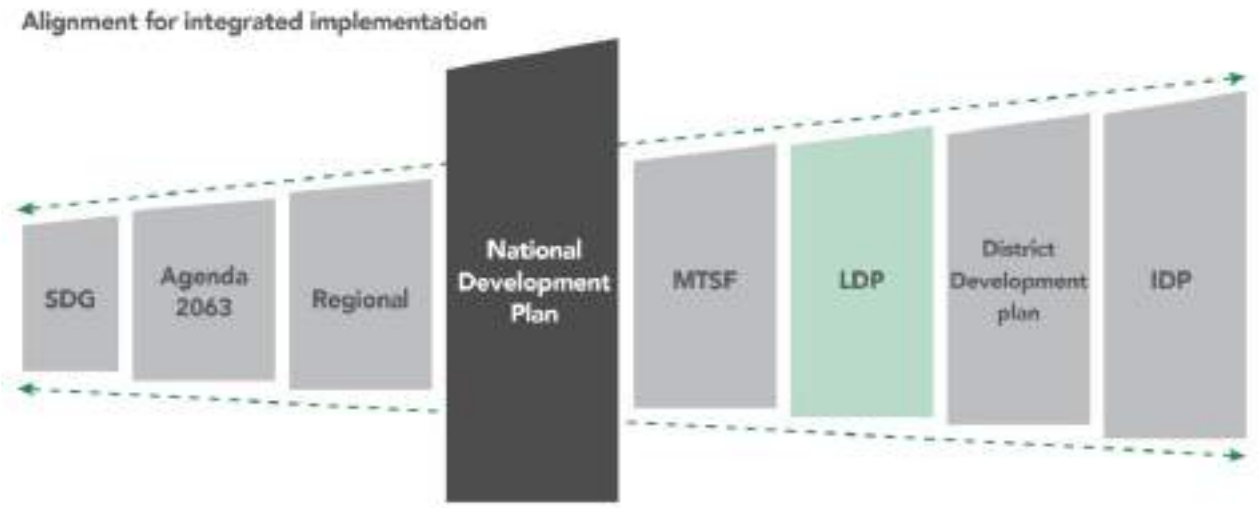


Figure 2: Alignment for integrated implementation

2.3.1 United Nations Sustainable Development Goals

The United Nations Sustainable Development Goals (SDGs) is a global agenda adopted by countries in 2015, with a vision of ending poverty, protecting the planet, and ensuring that all people enjoy prosperity and peace. An integrated indicator framework has been developed that aligns the international SDGs 2030 and the Africa Agenda 2063 (refer to Figure 3), with the country's National Development Plan 2030. This LDP 2020-2025 has therefore been aligned with global and continental agendas for poverty alleviation and environmental conservation.

2.3.2 Agenda 2063 – The Africa we Want

Agenda 2063 is Africa's blueprint and master plan for transforming Africa into the global powerhouse of the future. It is also a strategic framework for the socio-economic transformation of the African continent over the next 50 years. It aims to deliver an inclusive and sustainable development, underpinned by a Pan-African drive for unity and collective prosperity. It seeks to accelerate the implementation of continental initiatives for growth and sustainable development.

2.3.3 National Development Plan 2030

The vision of the National Development Plan (NDP) 2030 seeks to create a South African economy that is more inclusive and dynamic, and in which the fruits of growth are shared more equitably.

Some of the key focus areas are the low levels of education and skills, and the high level of unemployment. There is, however, a need to balance job creation and labour-intensiveness, with economic growth – two factors that can sometimes be at odds with one another. A strategic focus area for development planning that has been identified in the NDP 2030, is that of industries that are good for job creation as well as for economic growth (refer to the top-right quadrant of Figure 3



Figure 3: Integrated indicator framework
Source: NDP 2030

Proposals in the NDP 2030, to increase employment and growth, include the following:

- Increase exports, focusing on those areas where South Africa already has the endowments and comparative advantage, such as mining, construction, mid-skill manufacturing, agriculture and agri-processing, tourism and business services
- Increase the size and effectiveness of the innovation system and ensure closer alignment with companies that operate in sectors consistent with the growth strategy
- Improve the functioning of the labour market to help the economy absorb more labour through reforms and specific proposals concerning dispute resolution and discipline
- Support small businesses through the better co-ordination of activities in small business agencies, development finance institutions, and public and private incubators
- Improve the skills base through better education and vocational training
- Increase investment in social and economic infrastructure to lower costs, raise productivity and bring more people into the mainstream economy
- Reduce the regulatory burden in sectors where the private sector is the main investor, such as broadband internet connectivity
- Improve the capacity of the state to effectively implement economic policy

Long-term growth and investment require trust and co-operation between business, labour and government. Promoting more rapid job-creating growth means tackling existing tensions in an honest and open manner.

The Limpopo Province endeavours to create an open and equitable platform for engagements between the private sector, government and organised labour.

According to the NDP 2030, gross fixed capital formation needs to reach approximately 30% of the Gross Domestic Product (GDP) by 2030. The Limpopo Province is~~are~~ committed to investing where necessary in support of economic growth.

2.3.4 National Spatial Development Framework (Draft 2019)

The Spatial Planning and Land Use Management Act (SPLUMA) (No. 16 of 2013), requires the development of national and provincial spatial development frameworks (SDFs), and outlines the contents of such SDFs.

The National Spatial Development Framework (NSDF) (Draft 2019) promotes consolidation and infill development around existing nodes, in urban as well as rural areas, to support efficient service delivery. In the NSDF (Draft 2019), a regional-rural development model is depicted, as shown in Figure 4~~Figure 4~~~~Figure 4~~.

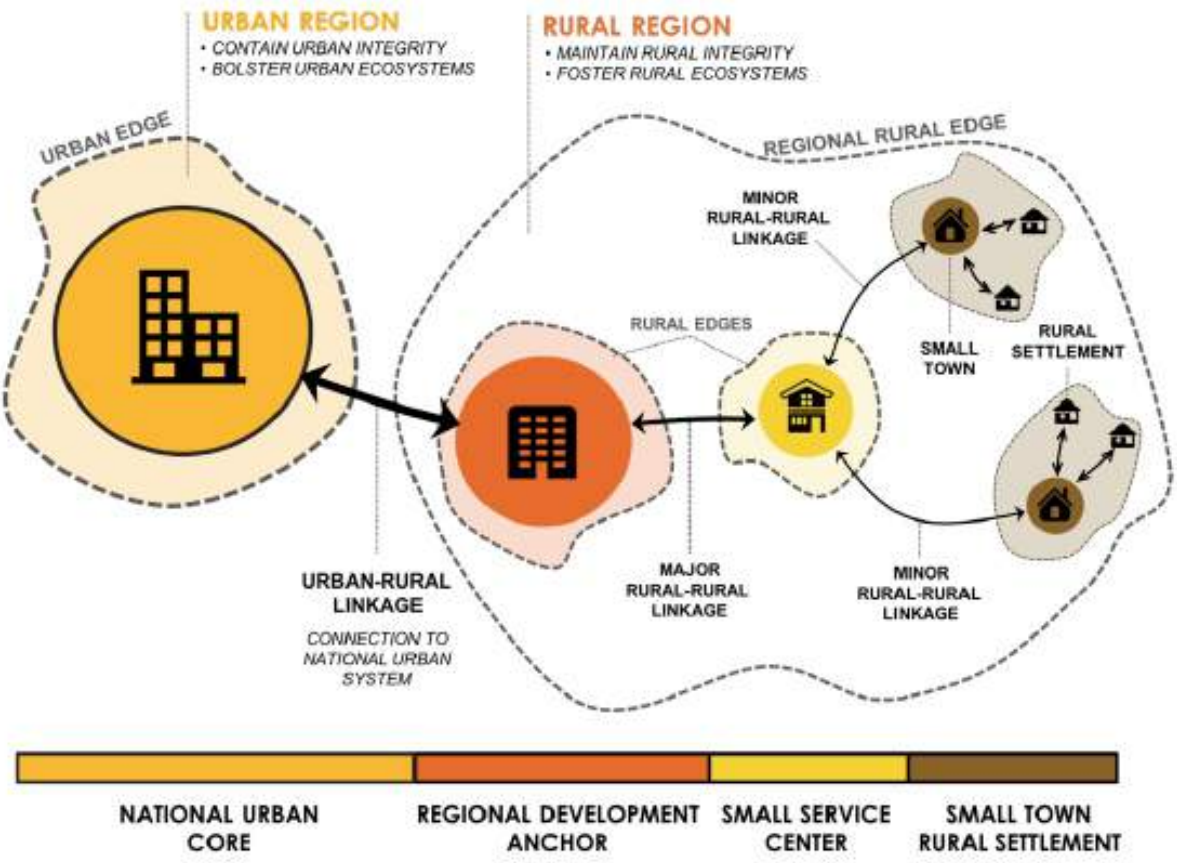


Figure 4: Regional-rural development model (schematic presentation)
Source: NSDF (Draft 2019)

As indicated in Figure 5~~Figure 5~~~~Figure 5~~ below, adapted from the NSDF 2030, the Limpopo Province plays a key role in the envisioned transformed South Africa. The western extents of the Province are primarily earmarked for agro-enterprise and small-scale farming. The central and eastern extents of the province (up to the Kruger National Park) have been identified as the Eastern Transformation Corridor.

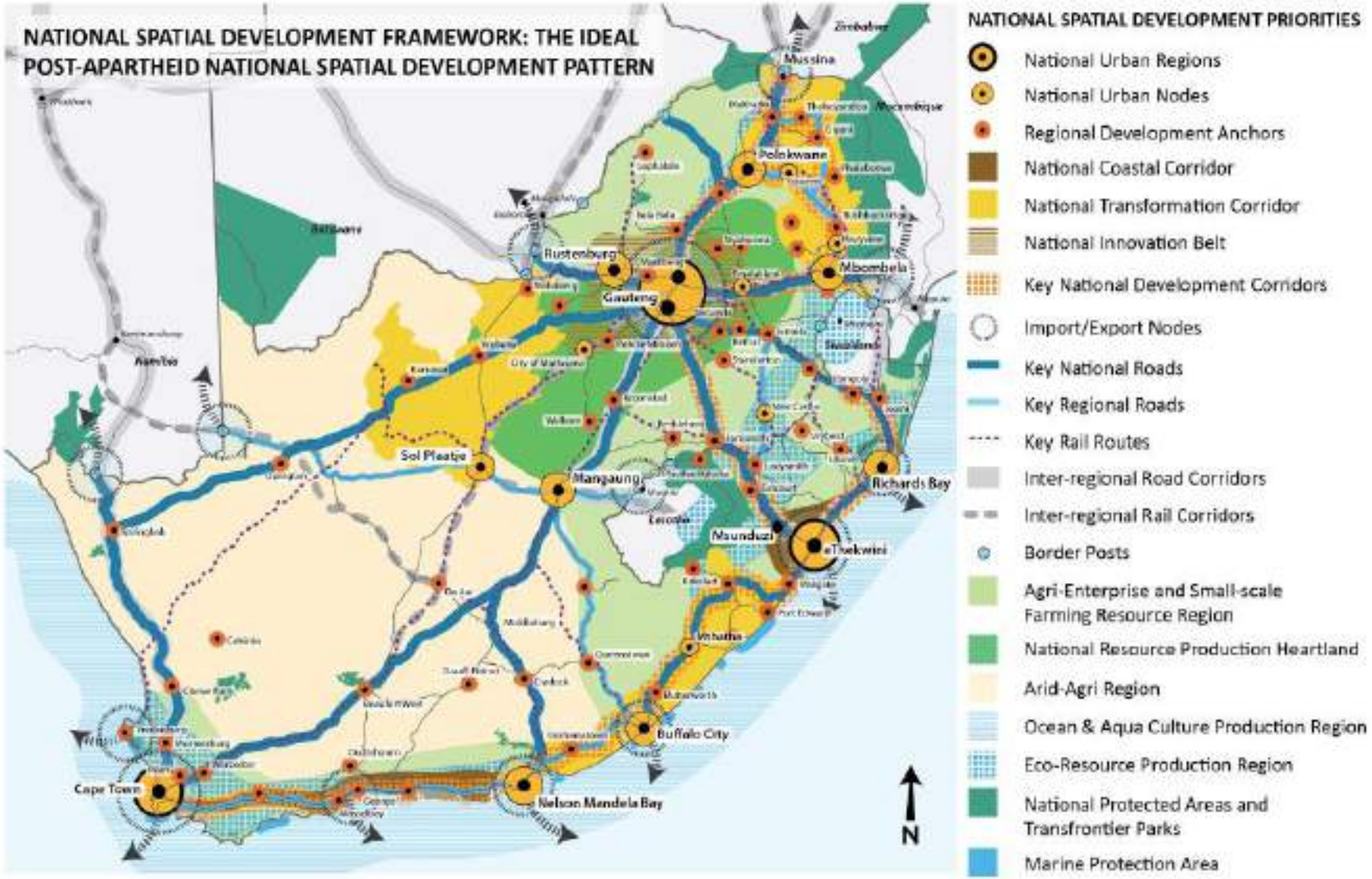


Figure 5: National Spatial Development Framework: The Ideal Post-Apartheid National Development Pattern

Source: NSDF (Draft 2019)

The NSDF 2030 delineates a system of nodes. Musina is earmarked as an import/export node and Polokwane and Tzaneen as National Urban Nodes. All the Limpopo Provincial Growth Points (PGPs) are defined as Regional Development Anchors, except for Groblersdal (Elias Motsoaledi) and Thabazimbi. In addition, the District Growth Points (DGPs) of Bela Bela, Thohoyandou and Giyani are escalated in the NDSF 2030 as Regional Development Anchors. This status requires a re-evaluation of the PGPs and DGPs in the Limpopo SDF and, subsequently, the Provincial Growth Point Programme.

2.3.5 Integrated Urban Development Framework

The Integrated Urban Development Framework (IUDF) is the government's policy position to guide the future growth and management of urban areas. It is designed to unlock the development synergy that comes from co-ordinated investments in people and places. It builds on various chapters of the National Development Plan and extends Chapter 8 "Transforming human settlements and the national space economy" by providing a new approach to urban investment, with the overall outcome – spatial transformation. The IUDF marks a New Deal for South African cities and towns by steering urban growth towards a sustainable growth model of compact, connected and co-ordinated cities and towns. The IUDF further aims to guide the development of inclusive, resilient and liveable urban settlements.

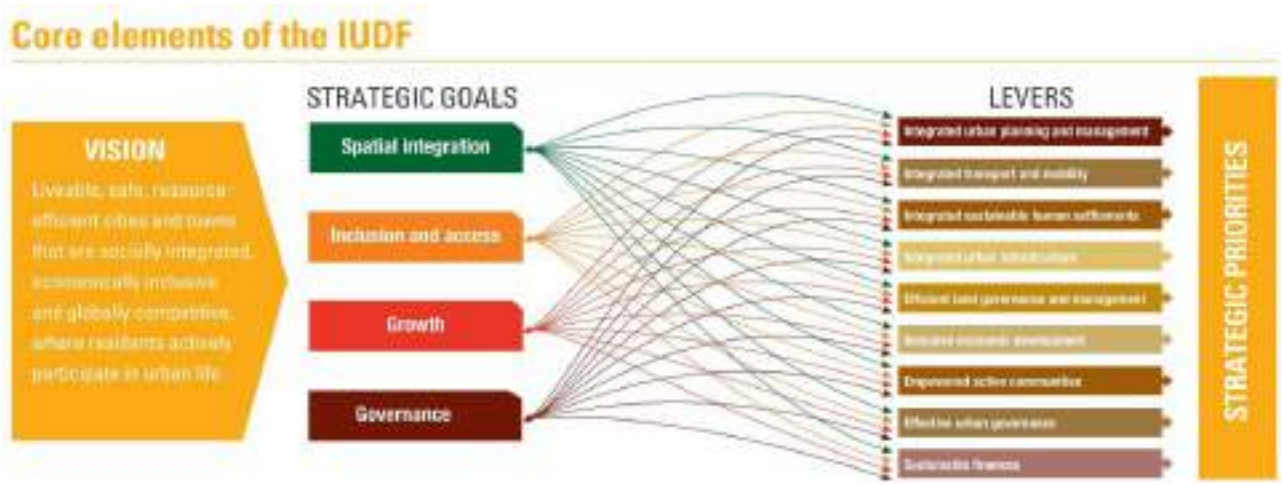


Figure 6: Integrated Urban Development Framework strategic priorities
Source: IUDF

2.3.6 Human Settlements Framework for Spatial Transformation and Consolidation 2019

The Human Settlements Framework for Spatial Transformation and Consolidation 2019, was developed having realised that the spatial location of human settlements investments did not necessarily achieve integration, and that a far more aggressive and accelerated intervention is required to reverse the spatial distortions. The framework is set to achieve the optimum results of spatial transformation, and was developed in alignment with the NDP, NSDF, IUDF and SPLUMA. It aims to direct investment in, and development spending on, national space, to enable inclusive growth and sustainable livelihoods by outlining a package of interventions towards asset poverty alleviation and housing delivery in well-located areas with secure tenure.



Through this framework, Priority Human Settlements and Housing Development Areas (PHSHDAs) were declared on 15 May 2020. Eleven of these PHSHDAs are within the Limpopo Province. The framework identifies innovative mechanisms to implement measures to fast-track human settlements development in these priority areas.

The Medium-Term Strategic Framework (MTSF) 2019-2024 further sets the targets that integrated development plans and programmes should be developed for each PHSHDA, and 100% of land acquired in these areas should be rezoned within the MTSF time period. The PHSHDA areas should also be included in revised IDPs, SDFs and land use schemes, including the Limpopo SDF. The framework further emphasises that serious intergovernmental relations (IGR), contracting through implementation protocols, is essential to plan, fund, implement and maintain the development of the PHSHDAs, and to collaborate with the private sector. It is clear that this framework directs the Province to invest its human settlements investment and related grant funding (Municipal Infrastructure Grants (MIGs)), Integrated National Electrification Programme (INEP), Water Services Infrastructure Grant (WSIG), Neighbourhood Development Partnership Grant (NDPG)) to these 11 PHSHDAs, in order to achieve spatial transformation and consolidation.

The framework draws attention to the risk of unplanned rural densification, which is a real and growing phenomenon in the Limpopo Province.

2.3.7 Medium-Term Strategic Framework 2019-2024 and implications for the Limpopo Province

A Medium-Term Strategic Framework (MTSF) is developed every five years and serves as a prioritisation framework aimed at focusing all government efforts on a set of manageable programmes towards the achievement of the NDP 2030 vision. It sets targets for implementation within the 5-year period, and states the outcomes and indicators to be monitored, which means that it also functions as an Integrated Monitoring Framework.

This LDP 2020-2025 will respond to the outcomes, interventions and targets set in the MTSF 2019-2024, for the seven national priorities.

2.3.8 Limpopo Spatial Development Framework

Section 15 of the Spatial Planning and Land Use Management Act (SPLUMA) (No. 16 of 2013) provides for the Premier of each province to compile, determine and publish a provincial spatial development framework (SDF) that is consistent with the national spatial development framework. The express objective is to co-ordinate, integrate and align the following:

- provincial plans and development strategies with policies of national government
- the plans, policies and development strategies of provincial departments
- the plans, policies and development strategies of municipalities

One of the core functions of a provincial SDF is to direct public investment across its province, as well as to provide a broad framework for private-sector investment. The provisions of the provincial SDF are given detailed expression in the respective local municipal SDFs and IDPs. Refer to Chapter 5 for more detail on the Limpopo Spatial Development Framework.

3 VISION OF THE LIMPOPO DEVELOPMENT PLAN

This chapter provides an overview of the vision for the Limpopo Province. The aim of the vision chapter is to allow the reader to reimagine the future of the Province through graphical illustrations. The pictures used in the chapter are representations of metaphors used to describe the envisioned future. A picture truly tells a thousand words and conveys a story that is enjoyable and easy to understand and remember.


Reimagining Limpopo



We live in a rapidly changing world. The magnitude and speed of changes that humankind has undergone in the past century have been unparalleled in our history. In every area of human endeavour, a vast amount of new knowledge is being generated, and old practices are being rejected one after another. At this point in history, no one can possibly deny that society, in all its aspects – social, economic, political, religious and cultural – is going through a process of fundamental transformation. We have entered the Fourth Industrial Revolution (4IR) and it is clear that the future will not be the same as the present.



The world is changing, and changing fast, and we must be ready to change with it, or risk being left behind. This requires us to change how we govern and provide services in the Province, how we manage and operate our companies, and even how we interact with, and teach, our children. But, more importantly, none of the changes listed above are possible if we are not willing to change ourselves and the way that we interact. Government, private sector, civil society, as well as every individual in the Province, need to hold hands to change the course of the Province collectively.

The Limpopo vision, created by the Limpopo Province is:



"Limpopo – The Pride of Africa. A resilient, vibrant, prosperous Province inspired by its diverse and creative people and its environment."

The Province and its people need to be resilient and adaptable in order to be ready for the 4IR reality. It acknowledges that by embracing its diverse population, and utilising this diversity, the Province is strengthened; and that only through different perspectives, and by embracing each other's cultures, we can grow.

What does the reinvented Limpopo Province of the future look like?

The Limpopo Province of the future will create an environment that is mutually beneficial, where rural living and smart cities co-exist in harmony, adopting the future without losing touch with our heritage. The new Limpopo Province will:

- Develop new smart green cities with integrated transport systems
- Embrace renewable energy to reduce the reliance on fossil fuels
- Develop and implement 4IR education systems that can inspire and prepare the youth, and adults, for the future
- Evolve businesses to embrace the 4IR and be globally competitive
- Evolve the provincial economy from being mostly dependent on the primary sectors, to a diverse and inclusive economy, with growth potential to reduce unemployment significantly
- Have sustainable, prosperous and connected communities
- Have new economic infrastructure that can enable the Province to leap into the future, such as drone airports to assist in delivering packages to rural areas

What do we do to realise the desired future?



The future cannot be predicted, but it can be created through designed interventions to realise a desired future. The LDP 2020-2025 will address the actions required to realise the new vision of the Province and will allow the creation of a new future.

The following **roadmap of interventions** is required to realise the vision:

1. The province needs to adopt one co-created vision that drives the government, private sector and civil society towards a common vision. The vision requires a co-owned LDP in order to be realised in the future.
2. All stakeholders in the Province need to realise the importance of a co-owned future where team efforts are the key to manifestation in the future, no matter which nationality or creed. An adaptive inclusive society is needed to allow all stakeholders in the Province to work together to achieve the vision.
3. The Province needs to create dynamic and innovative people, young and old, who can adapt and embrace the future. In turn, the Province needs to create dynamic and innovative businesses and governance that embraces the 4IR in order to earn its place on the global stage.
4. The creation of a learning society to achieve the future is crucial, in line with the 4IR which is already a reality and requires very different skills to those that currently exist. The future Limpopo Province will require the government and private sector to teach children and adults new skills that can be used in the workplace of the future.
5. It is of the utmost importance that an investment-friendly Province is created. South Africa, and the Limpopo Province, need to attract domestic and foreign investment for growth. Therefore, an environment with low financial and political risk must be established to attract investors.
6. This exciting new environment must be underpinned by a robust corporate and government governance structure to ensure the effective management of funds.
7. Economic transformation can be achieved only when the private sector and government work together. The government needs to create an enabling environment for business to thrive, and the private sector should invest and expand to create the job opportunities. The Limpopo Province has a significant unemployment figure that can be reduced by a shift in mindset from employment to entrepreneurship, in order to grow SMMEs in the long term.
8. The Limpopo Province must embrace the 4IR and its opportunities to create new industries and improve the competitiveness of existing industries to allow them to grow in global markets.
9. Leadership is the key factor to transforming the Limpopo Province towards its future vision. Any strategy requires people to adapt, from civil servants to the citizens of the Province, and this requires strong leaders who can lead the change management process. The leadership of the Province and of large corporates, should be visionaries who are able to look beyond the here and now and thus lead the Province towards what could be. These leaders must also be ethical and accountable to the people.

What do we do to realise the desired future?



4 REFLECTION: OVERVIEW OF THE LIMPOPO DEVELOPMENT PLAN 2014-2019

The Limpopo Development Plan (LDP) 2020-2025 builds on the achievements and lessons learned from the implementation of the LDP 2014-2019.

4.1 Performance overview

The Limpopo Provincial Government adopted the LDP 2014-2019 as a 5-year plan to serve as a guide for, and to inform, integrated planning, resource allocation and service delivery. The thrust of the LDP is to create jobs and to reduce poverty and inequality.

The Limpopo Development Plan 2014-2019 had 11 main development targets:

1. Limpopo's Growth Trajectory Scenario to attain a rate of 3% by 2019/20
2. Increase Matric pass rate from 72% in 2013 to beyond 80% in 2019/20 financial year (FY)
3. Create 429,000 jobs by 2019/20 FY
4. Reduce official unemployment rate from 16.9% in 2014, to 14% by 2019/20 FY (expanded unemployment rate from 30.9% in 2014 to less than 33% by 2019/20)
5. Improve access to basic services (water) from 83% in 2014, to 90% by 2019/20 FY
6. Improve access to electricity supply from 83% in 2014, to 90% by 2019/20 FY
7. Improve access to sanitation from 43% in 2014, to 50% by 2019/20 FY
8. Reduce HIV incidence by 50% by 2019/20 FY
9. Increase life expectancy: M = 58.3 and F= 62.5 in 2014 FY, to M= 60 and F= 65 by 2019/20 FY
10. Reduce inequality (Gini coefficient) from 0.61% in 2014 FY, to 0.50% by 2019/20 FY
11. Increase GDP contribution to the national economy to 7.1% by 2019/20 FY

The Province conducted the LDP Mid-Term Review in 2017 to assess its implementation progress. Furthermore, the Province participated in a national 25-year (1994-2019) review process. Both reviews revealed that poverty had deepened in 2016, while systemic unemployment and inequality had persisted. Both reviews identified strategic interventions to accelerate the attainment of the set targets.

The reviews also revealed that the Province was on track with the implementation of the greater part of the LDP, as well as the attainment of its targets. However, regression was identified in relation to the provision of water services, matric pass rate, and the attainment of economic development-related targets. It is predicted, however, that COVID-19 may have eroded much of the good work that was done, and that the Province may need to build from a lower base in 2020-2025 than was originally anticipated. The impact of COVID-19 on the national and provincial economy is discussed in Section 9 of this LDP document.

Five out of eleven targets were achieved. Table 1 provides the overall performance of the Province in terms of the 2015-2019 LDP development targets. Targets that were met are indicated in green, while targets that were partially achieved are in amber and targets that were not met are indicated in red.

Table 1: Overall performance of the Province in terms of the LDP 2014-2019 development targets

Development indicator	Target (2014-2019)	Progress	Strategic challenge
Economic growth (percentage growth of GDP)	Gross Domestic Product per Region (GDPR) growth of 3% per annum	1.2% average growth per annum	• Global declining commodities prices • Low business confidence • Limited focus on agro-processing • Low levels of value-adding to mined minerals
Inequality (Gini coefficient)	Reduce income inequality from 0.61% to 0.50%	Inequality is at 0.57%	• Most people earn R2,500 per month • Limpopo is the fourth-highest province with people living below the poverty level • High dependency ratio and limited economic growth that is skewed to the rich threatened to increase poverty and the income divide
Percentage contribution to the national economy	8% Gross Geographic Product (GGP) contribution to national economy	7% achieved	• Declining mining sector • Failure to achieve agro-processing targets • Low foreign investments
Employment creation	429,000 jobs	448,000 jobs	• Decline in mining production which resulted in job losses • Delay in finalisation of land claims' impact on Province's capacity to maximise on agriculture • Pervasively low levels of education and skills limit the possible potential of much-needed job creation
Life expectancy	• Male 60 years • Female 65 years	• Male 59 years • Female 65.4 years	• Poor health lifestyle choices • Access to basic services • Poverty • Low levels of education
Reduce HIV incidence	• Reduce HIV incidence by 50% • Increase number of patients on treatment to 290,000 • Client remains on ART (antiretroviral therapy)	• 51% • 356,915 patients on treatment	• Lack of patient electronic information management system • Bringing new HIV incidence down to 0% • Poor adherence to the ABC campaign principles
Availability of health facilities (infrastructure backlogs/ provision)	120	89	• The rural nature of settlements structure creates a challenge to equitable provision of social facilities
Maternal and child morbidity and mortality	80% antenatal visit before 20 weeks rate	45.8% antenatal visit before 20 weeks rate	• Roads infrastructure leading to health facilities are in poor condition and therefore have a negative effect in the performance of this area • Awareness to highlight benefits of antenatal interventions for the well-being of children

Development indicator	Target (2014-2019)	Progress	Strategic challenge
Matric pass rate • Literacy levels • Infrastructure backlogs • National school nutrition programme • Learner teacher support material • Learners support attainment strategy	80% pass rate	73.2%	• Inadequate provision of learner-teacher support material • Minimal participation of learners in the achievement of learner attainment strategy objectives • Infrastructure backlog attributable mainly to poor project management during the implementation phase
Water	90%	74.1%	• Regression in water service provision due to inadequate provision for operations and maintenance actions • The effect of climate change • Inadequate resource allocation for bulk infrastructure • Water-intensive resource-based industries
Electricity	90%	92.7%	• Rapidly expanding new settlements

The Auditor-General of South Africa (AGSA) is established, in terms of the Constitution, as the Supreme Audit institution (SAI) of South Africa, and exists to strengthen our country's democracy by enabling oversight, accountability and governance in the public sector through auditing, thereby lending a hand towards building a capable state and effectively enhancing public confidence.

The AGSA concluded audits for all 17 institutions (12 departments and five public entities) of the Limpopo Provincial Government. Table 2 below sets out the audit outcomes of both the provincial and the public entities, to illustrate achievements.

In terms of provincial government departments, two departments registered Clean Audits, namely Provincial Treasury and Community Safety; six departments registered Unqualified Audits, namely Office of the Premier, Legislature, Agriculture and Rural Development, Economic Development, Environment and Tourism, and CoGHSTA (Co-operative Governance, Human Settlements and Traditional Affairs); and five departments registered Qualified Audits, namely:

- Department of Health
- Department of Public Works, Roads and Infrastructure
- Department of Social Development
- Department of Sport, Arts and Culture
- Department of Education

The audit outcomes of the Department of Education are outstanding, as already mentioned. Table 2 provides a synopsis of the trend analysis of the audit outcomes.

Table 2: Synopsis of trend analysis of audit outcomes

Vote No	DEPARTMENT	201314	201415	201516	201617	201718	201819	TREND
1	Premier	UQ	CL	UQ	UQ	UQ	UQ	⟷
2	Legislature	UQ	UQ	UQ	UQ	UQ	UQ	⟷
3	Education	D	D	D	Q	Q		
4	Agriculture & Rural Development	Q	UQ	UQ	Q	UQ	UQ	⟷
5	Treasury	UQ	UQ	UQ	CL	CL	CL	⟷
6	Economic Development	Q	UQ	Q	Q	Q	UQ	↑
7	Health	Q	UQ	Q	Q	Q	Q	⟷
8	Transport	UQ	UQ	UQ	UQ	UQ	UQ	⟷
9	Public Works , Roads & Infr	Q	Q	Q	Q	Q	Q	⟷
10	Community Safety	UQ	UQ	UQ	UQ	UQ	CL	↑
11	Co-Operative Governance, Housing Settlements & Traditional Affairs	UQ	UQ	UQ	Q	UQ	UQ	⟷
12	Social Development	Q	UQ	UQ	UQ	UQ	Q	↓
13	Sport, Arts & Culture	Q	Q	Q	Q	Q	Q	⟷

Legend key: D = Disclaimed, Q = Qualified, UQ = Unqualified, CL = Clean
Source: AGSA Audit

In terms of public entities, three registered Unqualified Audits, namely Limpopo Tourism Agency (LTA), Limpopo Gambling Board (LGB) and Road Agency Limpopo (RAL); and two other entities registered Qualified Audits, namely Limpopo Economic Development Agency (LEDA) and Gateway Airport Authority Limited (GAAL).

4.2 Strategy to deal with movable and immovable asset findings

It became necessary to develop a strategy to deal with findings in respect of movable and immovable assets. Limpopo Provincial Treasury will spearhead the process to implement the strategy, and it is premised on the actions listed below:

- Address outstanding capacity issues in departments and additions to the prior year's restatements
- Obtain clarity from National Treasury on the administration fee levied by the implementing agents
- Deal with issues pertaining to investment property
- Ascertain the valuation-roll of departmental assets
- Monitor assets under investigation
- Support measures of disposals
- Perform two asset verifications per annum
- Assist with the reconciliation of the movable asset register
- Assist with the correction of misstatement from the prior year's audit

5 SPATIAL CONTEXT

The sections that follow provide a description and analysis of the spatial context of the Limpopo Province.

5.1 Overview

The Limpopo Province represents the north-eastern extents of South Africa. The total land area of Limpopo is 125,754km², approximately 10% of the total national surface area. The Province comprises five district municipalities (DMs) and 22 local municipalities (LMs), as indicated in Figure 7.

The Limpopo Province shares international borders with districts and provinces of three other countries: Botswana's central districts to the west and north-west, Zimbabwe's Matebeleland provinces to the north and north-east, and Mozambique's Gaza province to the east of the Province.

The Limpopo Province is the primary link between South Africa and countries further afield in sub-Saharan Africa. On its southern flank, from east to west, the province shares borders with other South African provinces, namely Mpumalanga, Gauteng, and the North West. The N1 national highway is a key link to the Pretoria-Johannesburg urban complex.

Polokwane, the provincial capital, is supported by a network of towns and dense rural settlements that act as service centres. Approximately 12% of the provincial population reside in urban areas, while the remaining 88% are resident in the rural central and eastern extents of the Province. The small dispersed villages are under the leadership of Traditional Authorities. Many of these villages have fewer than 1,000 inhabitants. In some cases, a number of villages eventually merge organically, resulting in large villages that lack the necessary economic or infrastructure base. The dispersed settlement pattern poses challenges to the equitable and effective provision of engineering infrastructure and social services. Slow land reform processing, along with challenges of tenure, hinders planning for, and the development of, mostly state land under traditional authority governance.



Figure 7: Locality and demarcation of districts and local municipalities, Limpopo Province

Source: Municipal Demarcation Board 2018

Limpopo Development Plan 2020-2025

5.2 National Development Plan

The government committed itself to the development of a longer-term perspective on the future of South Africa, with the overall intention that such a perspective would form the foundation for medium-term and annual planning across all spheres of government and the private sector, throughout the country. The National Planning Commission was appointed to draft a vision and National Development Plan (NDP), which was completed in 2011.The National Development Plan: Vision for 2030, focuses on the following key priority areas:

- An economy that will create jobs
- Improving infrastructure
- Transition to a low-carbon economy
- An inclusive and integrated rural economy
- Reversing the spatial effects of apartheid in urban and rural areas
- Improving the quality of education, training and innovation
- Quality health for all
- Social protection
- Building safer communities
- Reforming the public sector
- Fighting corruption
- Transforming society and uniting the country

The NDP makes further recommendations pertaining to urban areas that endeavour to create more compact urban nodes, conducive to diversity, and to make investments to stimulate the economy on the periphery of townships. The NDP also recommends that substantial investment be made in public transport and in efforts for better integration with other modes of transport, to make it safer, more reliable and more affordable for all citizens.

The NDP suggests that rural interventions should differentiate less dense marginal areas, that primarily need appropriate service provision, from more viable and denser areas that have transport and market access. The most relevant rural interventions are the prioritising of agricultural and rural development along mobility corridors to build local economies and contribute to national food security, and the identification of non-agricultural opportunities such as tourism and mining, particularly with a “green” focus.

5.3 National Spatial Development Framework

The main purpose of the National Spatial Development Framework (NSDF) is to provide a visual representation of the desired spatial development pattern in the country, whilst giving spatial directives for infrastructure investment and development, and targeting investment by government and the private sector for certain strategic areas called Strategic Infrastructure Projects (SIPs).

The vision of the NSDF is to achieve the following set of mutually reinforcing, high-level spatial outcomes:

- ***Outcome One***: A network of consolidated, transformed and well-connected national urban nodes, regional development anchors, and development corridors, that enable South Africa to derive maximum transformative benefit from urbanisation, urban living and inclusive economic development
- ***Outcome Two***: National corridors of opportunity that enable sustainable and transformative national development, urbanisation, urban consolidation, mutually beneficial urban and rural linkages, and ecological management
- ***Outcome Three***: National connectivity and movement infrastructure systems that are strategically located, extended and maintained to support a diverse, adaptive and inclusive space economy, and a set of key national and regional gateway cities and towns

- ***Outcome Four***: Productive rural regions, supported by sustainable resource economies and strong and resilient regional development anchors, that provide people living in rural areas with access to the national and global economy
- **Outcome Five**: National ecological Infrastructure and the national natural resource foundation are protected and managed well to enable sustainable and just access to water and other natural resources, both for current and future generations

5.4 Limpopo Spatial Development Framework

The Constitution assigns provincial and regional planning as exclusive responsibilities of provincial government. In terms of Section 15 of SPLUMA 2013, the Premier is required to compile and publish an SDF for the Limpopo Province.

The main purpose of the Limpopo Spatial Development Framework (LSDF) is to:

- Facilitate co-ordination and alignment between provincial plans and development strategies, and the policies and strategies of national government
- Integrate and align the plans, policies and strategies of provincial departments
- Ensure alignment between the plans, policies and strategies of municipalities

Figure 8 provides a composite visual representation of the current Limpopo Development Framework.

5.5 National Spatial Development Framework implications for Limpopo Province

The National Spatial Development Framework's (NSDF) desired pattern is expressed in five sub-frames: Inter-Regional Connectivity, National System of Nodes and Corridors, National Resource Economy Regions, National Movement and Connectivity Infrastructure System, and National Ecological Infrastructure and Natural Resource System.

Sub-frame 1: Inter-Regional Connectivity
The NSDF prioritises supra-national, cross-border and regional interrelations, including the facilitation of trade and movement in the SADC trade bloc; the expansion of South Africa's role in facilitating inter-regional trade and providing regional gateways; the protection of strategic regional ecosystems and biodiversity through the shared management of International Transfrontier Parks; and the effective and efficient management of cross-border movement, service delivery and inter-regional migration.

The existing National and Inter-Regional Freight and Development Corridors to be strengthened, focusing on significant export and import trade routes from Gauteng, are (1) via the N4 to Komatipoort, (2) via the N3 to eThekwini, and (3) via the N1 north to Musina. The identification of the N1 north to Musina as one of these critical Development Corridors, directs the LSDF, LDP and the relevant Limpopo Municipal SDFs to prioritise this corridor.

LSDF response
The LSDF also identifies the Musina-Makhado Development Corridor as a strategic catalyst for economic development, provincially, nationally and regionally. The implementation of the Musina-Makhado Special Economic Zone (SEZ) is one of the initiatives for unlocking economic potential in the area. Furthermore, the development of the Musina-Makhado Regional Spatial Development Framework (currently under consideration) is critical for outlining the spatial vision to enhance collaboration, alignment and targeted infrastructure investments across the various spheres of government and non-government partners. This

Limpopo Development Plan document provides further direction as to how the Limpopo Provincial Government will enable economic and socio-economic growth along this corridor.

Figure 9 provides a graphical representation of the current planning for Sub-frame 1: Inter-Regional Connectivity in the LSDF.

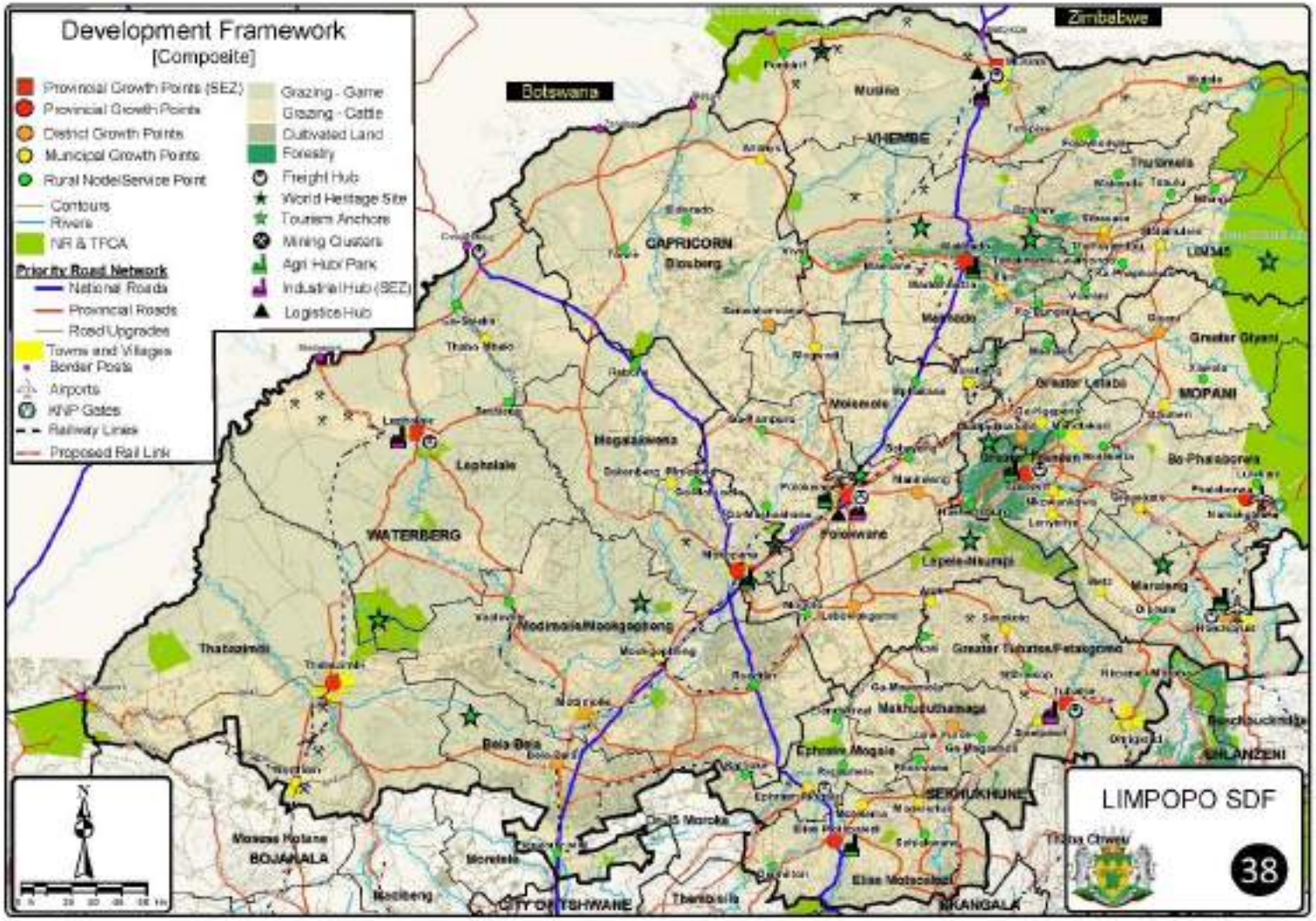


Figure 8: Limpopo Spatial Development Framework: composite layout, 2016

Source: LSDF (2016)

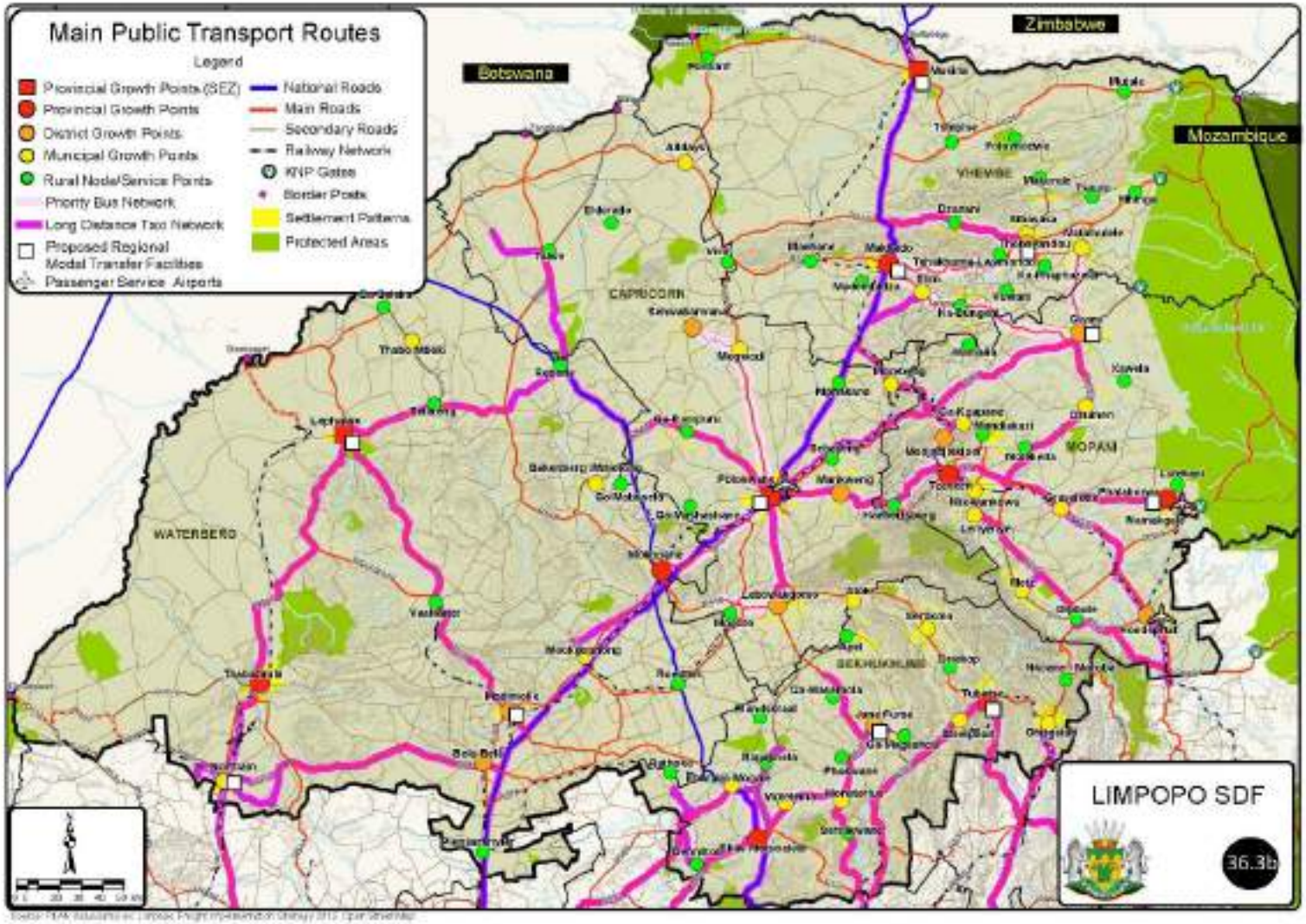


Figure 9: LSDF: current planning for Sub-frame 1: Inter-Regional Connectivity

Source: PLAN Associates (Limpopo Freight Implementation Strategy 2013)

Sub-frame 2: National System of Nodes and Corridors
The NSDF embraces that the national network of nodes, smaller settlements and corridors requires that: (1) national nodes and smaller settlements be well connected to each other, and that (2) national nodes be well connected to the rest of the world through a range of transport modes and communications networks. This requires that:

- Road and rail routes that are of national importance be built, maintained and upgraded as and where necessary
- Rail be prioritised over road for freight movement
- The availability, affordability, safety and quality of mass public passenger transport be drastically improved

Polokwane has been identified as a National Urban Node, with Tzaneen and Lephalale as emerging National Urban Nodes that require support. The NSDF suggests: the strengthening and consolidation of existing regional development anchor towns, including Ba-Phalaborwa Town; the supporting of regional development anchors under stress, including the towns of Musina, Mokopane, Tzaneen and Makhado; and the transformation of the towns of Giyani, Thohoyandou, Groblersdal and Burgersfort towns into regional development anchors.

The NSDF further identified the need to develop new transformation corridors, with the Eastern Escarpment Transformation Corridor stretching from Mbombela, Hoedspruit, Ba-Phalaborwa, Giyani and Thohoyandou, to Makhado. The NSDF's priorities could be realised by using land administration and urban land reform to guide the interface between settlement planning, land use, development and infrastructure planning in fast-growing formal and traditional settlement areas.

LSDF response
The Limpopo Province is predominantly rural in nature. Therefore, sustainable and inclusive economic growth requires measures that strengthen the rural-urban linkages. This will be achieved by linking functional geographical areas (urban nodes in particular) through the implementation of strategic and sectoral initiatives. Transport and communication infrastructure are some of the key instruments to facilitate economic development in the identified nodal areas, while also strengthening the linkages between rural and urban spaces. Figure 10 provides a graphical representation of the nodal hierarchy in the LSDF.

Sub-frame 3: National Resource Production Regions
According to the NSDF, the Limpopo Province in its entirety falls within the National Agro-Enterprise and Small-Scale Farming Resource Region. The NSDF emphasises the need to strengthen the existing activities of productive rural regions in the central heartland areas located around the Gauteng, North West, Mpumalanga and Limpopo agricultural, mining and densely-settled urban regions. There is also a need to create new, and transform existing, Productive Rural Regions, focusing on the densely-settled eastern and northern regions of the Limpopo Province.

LSDF response
The Limpopo Province is known to be the agricultural production hub for highest-value agricultural commodities. The agricultural sector therefore has the potential to play a vital role in building and accelerating sustainable, equitable and inclusive economic growth through its forward and backward linkages within the value chain. The Strategic Framework for the Limpopo Revitalisation of Agriculture and Agro-processing Framework, outlines priority sectors and localities. It is therefore important that district and local SDFs give expression to these priority sectors, and that plans and investments be aligned to support them. The District Development Model provides an institutional vehicle for government, private-sector and civil society organisations to collaborate in pursuance of a shared economic goal.

Figure 11 and Figure 12 provide a graphic overview of the agricultural land capability across the Province and the current hórtıculture clusters.

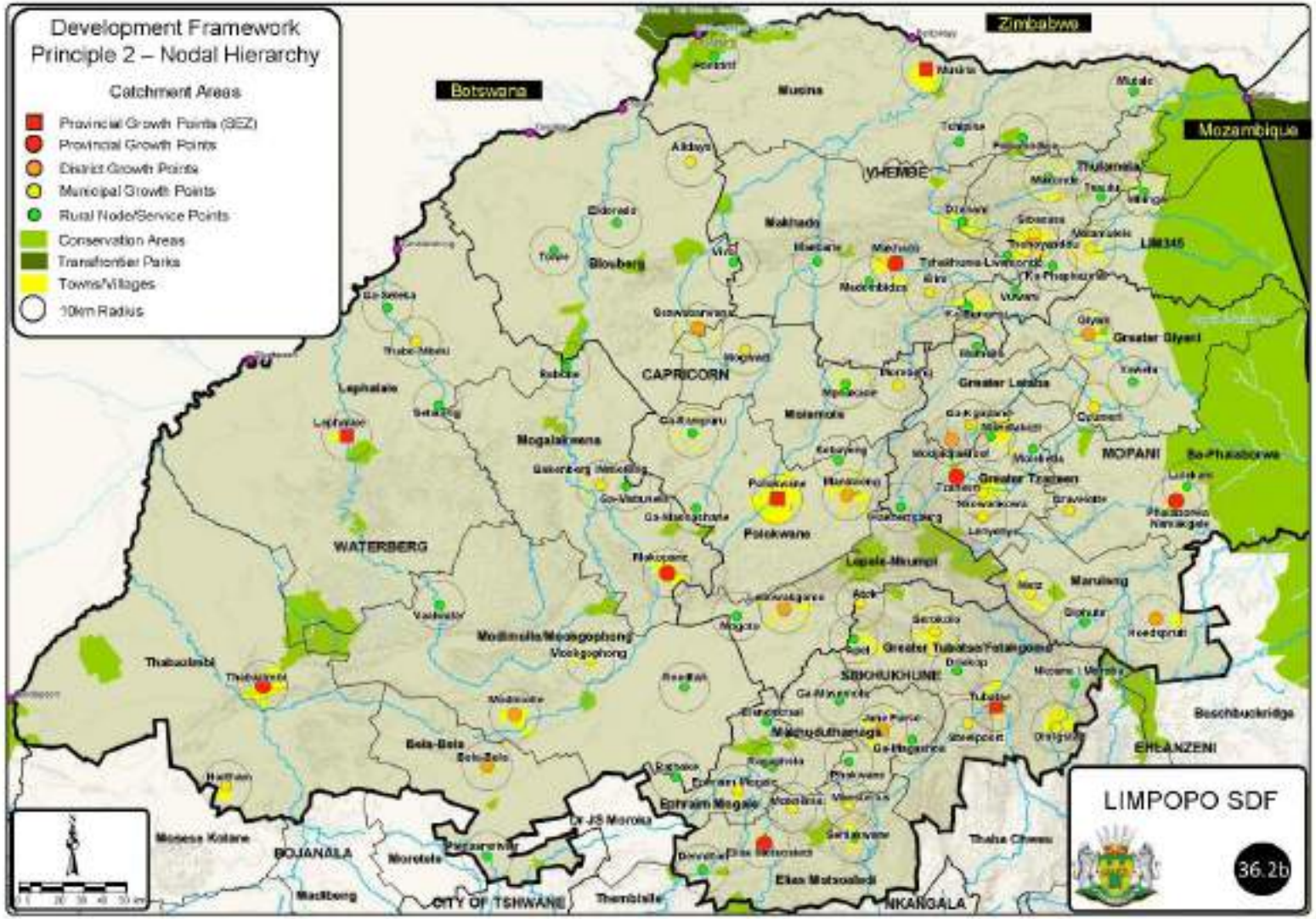


Figure 10: LSDF: current nodal hierarchy

Source: LSDF (2016)

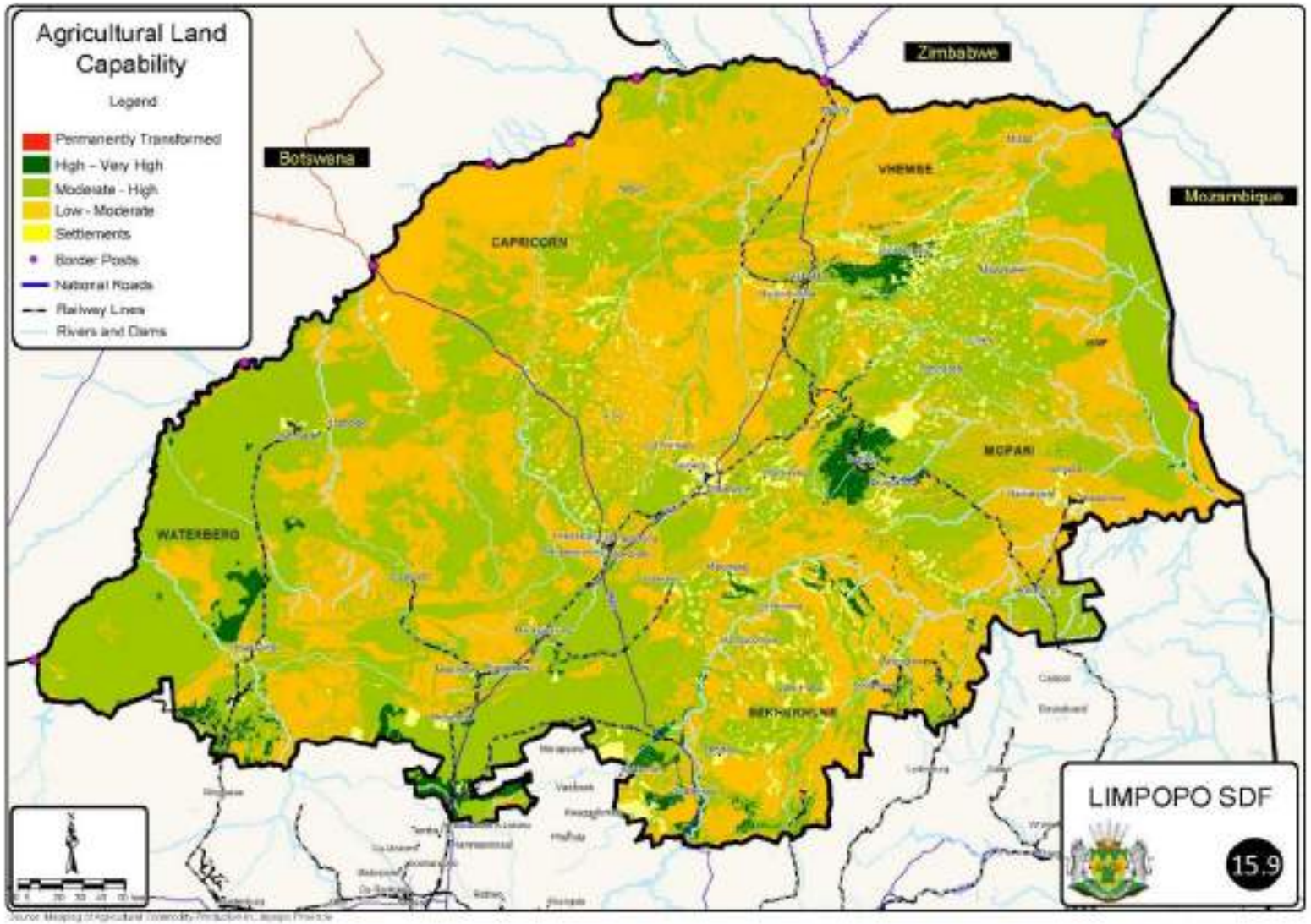


Figure 11: LSDF: agricultural land capability

Source: Mapping of Agricultural Commodity Production in Limpopo Province

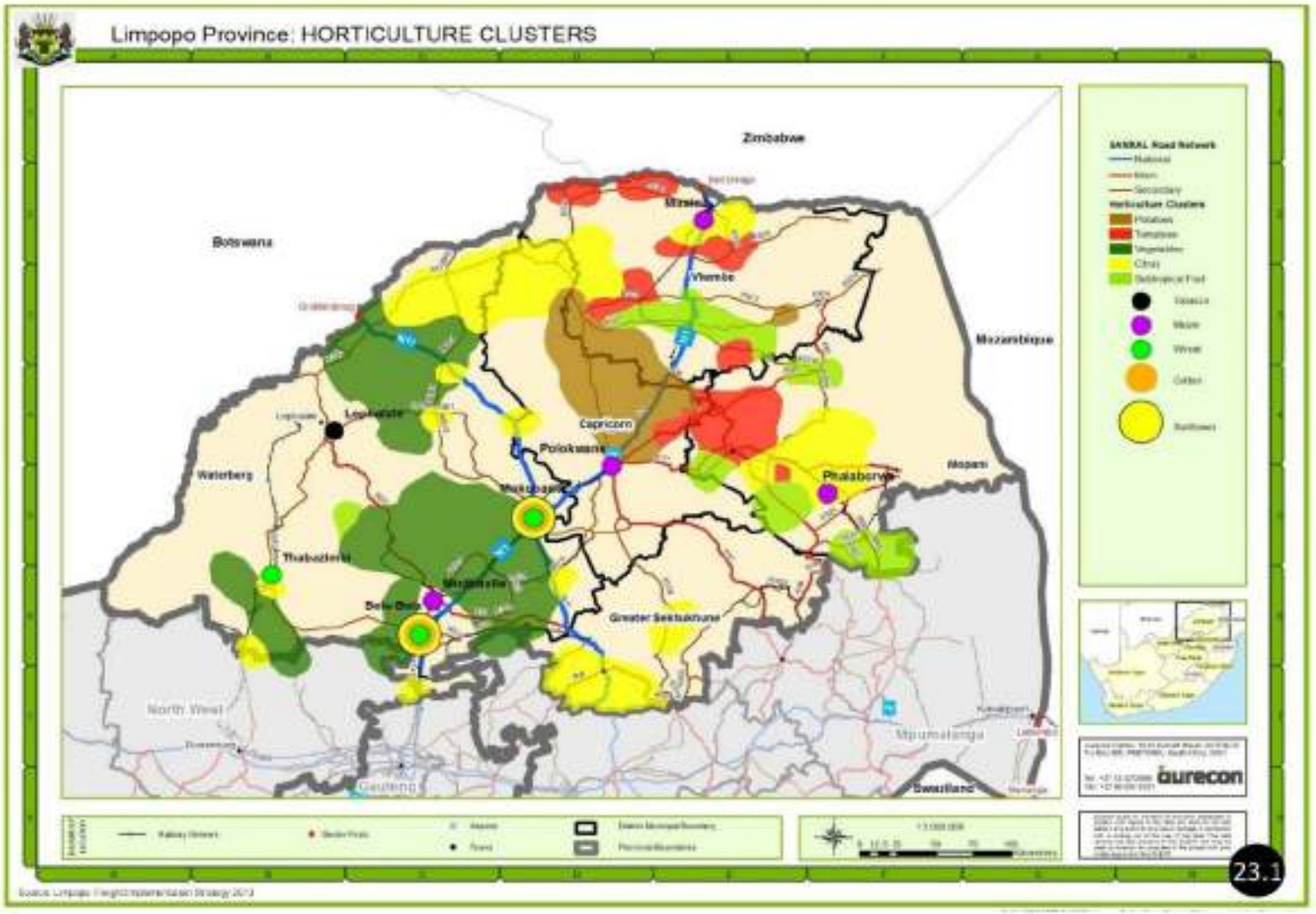


Figure 12: LSDF: current horticulture clusters

Source: Limpopo Freight Implementation Strategy 2013

The NSDF suggests the following on Mining and Energy Production Areas and Supportive Infrastructure:

- Collaborative, long-term regional development in new mining exploration areas is required, including: (1) scenario development, (2) population migration projections, (3) diversification strategies, (4) cost–benefit modelling of regional infrastructure provision, municipal service delivery and the cumulative impact of mining activities, and (5) the optimisation of regional and local development opportunities
- Rehabilitation and negative impact mitigation must extend beyond agreements on paper and must be enforced on the ground
- In the case of new mines, where (1) the levels of automation and mechanisation are low, and (2) sizeable numbers of workers will still be required, housing provision and/or settlement expansion must take place in regional development anchors or existing small towns where adequate social services are available
- In deciding on the licencing of such new mining operations, (1) national and regional development priorities, and (2) the cumulative impact of the envisaged mining activities, specifically on the creation of functional rural regions, must be considered
- Where possible, mining companies should become far more involved in the development of functional, resilient rural regions, which may include:
    - (1) hard investment in transport and connectivity, and (2) soft investment in social services infrastructure
    - Limit development of new mining-dependent towns
    - Support and diversify economies in declining mining towns and regions

LSDF response
The LSDF nominated a number of mining clusters, some of which are already being mined quite intensively, while others represent future mining hubs.

The established mining clusters are near:

- Northam – Platinum
- Mokopane – Platinum
- Dilokong corridor/ Burgersfort – Platinum
- Phalaborwa – Copper
- Musina-Makhado Corridor – Diamonds and coal
- Lephalale – Coal

Figure 13 provides a graphical representation of the mineral mining potential across the Limpopo Province.

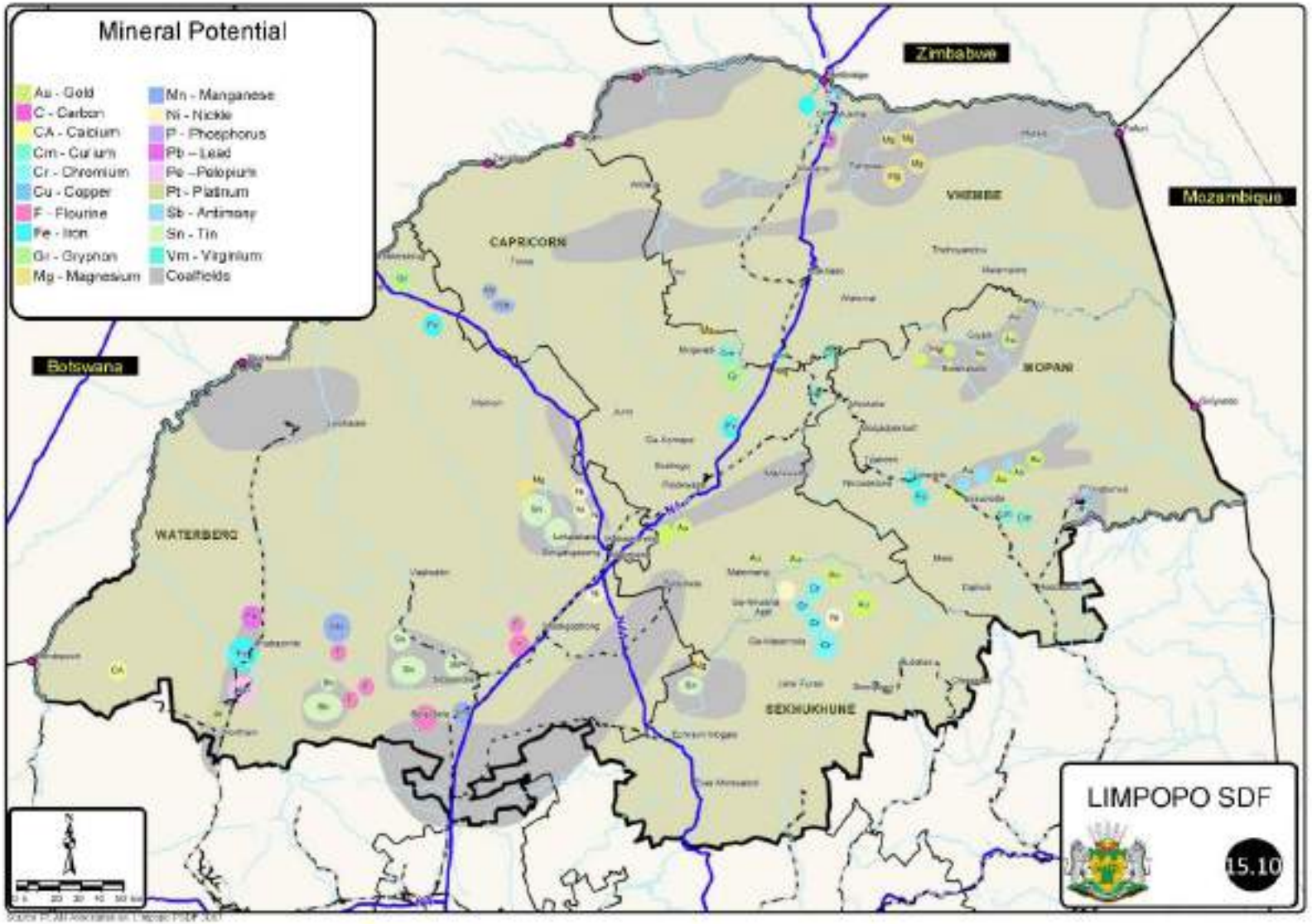


Figure 13: LSDF: mineral potential

Source: LSDF (2016)

Sub-frame 4: National Movement and Connectivity Infrastructure System
The national network of nodes, smaller settlements and corridors requires that (1) national nodes and smaller settlements be well connected, and that (2) national nodes be well connected to the rest of the world through a range of transport modes and communications networks.

The NSDF prioritises the maintenance of existing National Development Corridors, including the N1 north from Gauteng to Musina and the Beitbridge border into Zimbabwe, and the creation of a new corridor from Mbombela to Makhado and Polokwane. Existing national and inter-regional freight and development corridors along significant export and import trade routes from Gauteng: (1) via the N4 to Komatipoort, (2) via the N3 to eThekwini, and (3) via the N1 to Musina, are considered important in supporting national freight movement and trade with Southern African Development Community (SADC) member states.

LSDF response
In the context of limited resources for rail and road maintenance, upgrades and expansion, it is proposed that a core or priority network be defined at provincial level, which should be prioritised for maintenance and upgrading. The networks shown in the LSDF present the minimum network of good-quality movement infrastructure (for both people and goods) to support intra-provincial connectivity and economic activity.

Priority road network
Proposals include:
- Linking all eight border posts in the Province, to support import and export activity and cross-border tourism
- Linking major tourism destinations such as the Kruger National Park and Waterberg Biosphere
- Linking major future nodes such as the Lephalale coalfields/ Steenbokpan and the Dilokong corridor
- Maintaining and strengthening the network that links to major regional centres in neighbouring provinces such as Mpumalanga, Gauteng and North West, as well as to the Richards Bay Coal Terminal. Amongst others, it includes the N1 and N11 national highways, and the Trans-Limpopo, Phalaborwa, East-West, and Dilokong provincial corridors

Budget should therefore be provided to ensure that the priority road network remains well maintained, and is upgraded where necessary, including the tarring of gravel road sections that form part of the priority network.

Rail network
Proposals include:
- Vaalwater-Modimolle link be rebuilt and reopened (in accordance with the Provincial Freight Strategy)
- Simultaneously upgrade the Richards Bay-Lephalale-Mahalapye rail section (new freight line – Mamabula)

Figure 14 provides a graphical representation of the critical road and rail networks and corridors.

Public transport network
Proposals include:
- High-order multi-modal transfer facilities to be established at Polokwane, Musina, Lephalale and Modimolle as part of the provincial Strategic Public Transport Network (SPTN) (some of which are well underway)
- Similar facilities could be established at Thohoyandou, Makhado, Giyani, Burgersfort, Jane Furse, and Northam in future
- Public transport interchanges and corridors be equipped with supporting infrastructure such as drop-off facilities with seating, dustbins, lighting, etc., to improve commuters' convenience and safety
- Continuation of passenger services at the Polokwane International Airport, Kruger Park Gateway Airport (Phalaborwa) and Eastgate Airport (Hoedspruit)

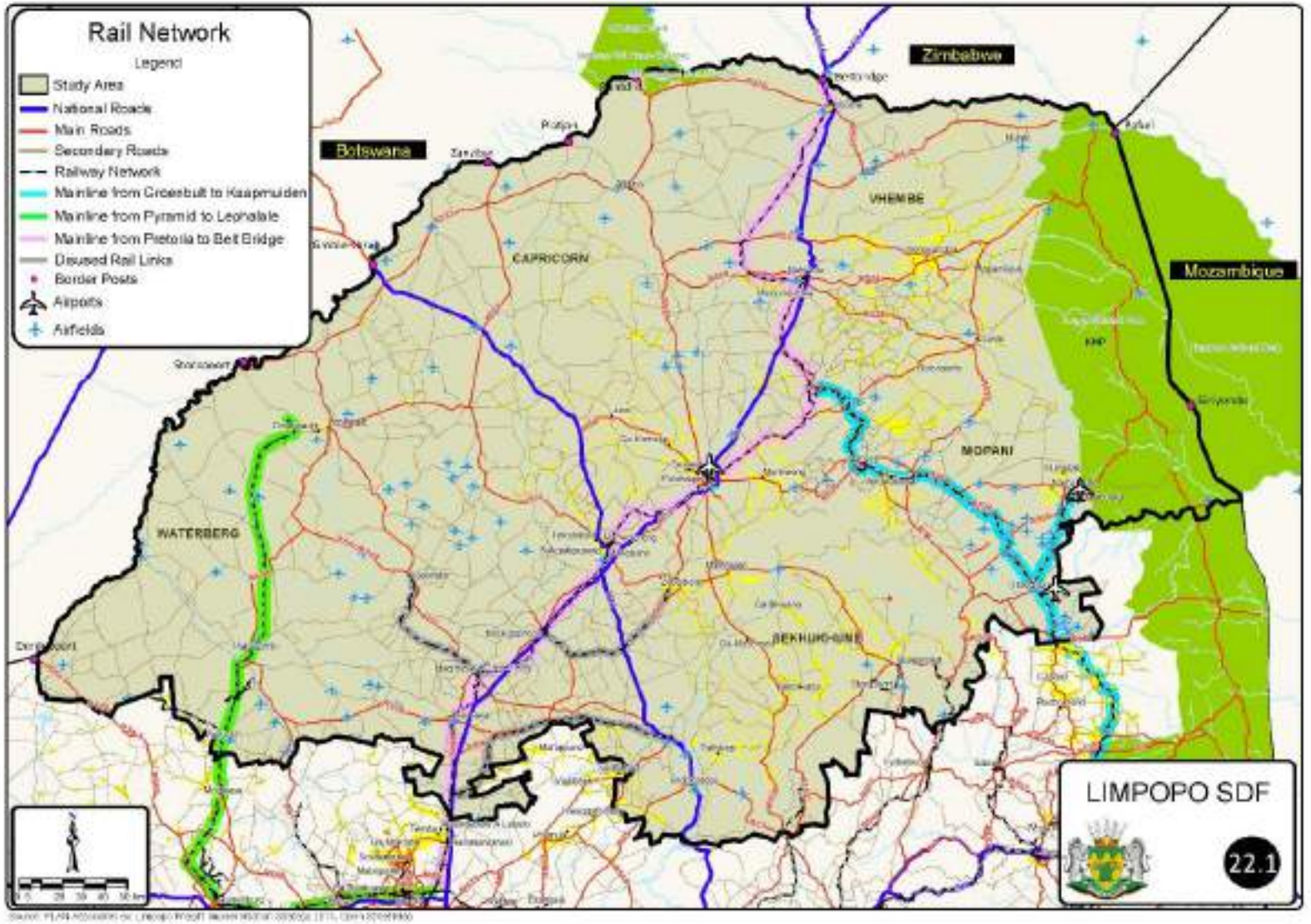


Figure 14: LSDF: critical road and rail networks

Source: PLAN Associates (Limpopo Freight Implementation Strategy 2013 - Open Street Map)

Freight movement network

The LSDF supports the optimisation of the movement of goods into, out of, and through, the Province. This development plan will indicate how the Limpopo Provincial Government will enable the required public and private investment in the upgrading and further development of these critical transport projects.

The following catalytic projects are supported by the LSDF:

- Upgrade of road and rail linkages to Medupi power station
- Possible construction of a heavy-haul rail link into Botswana – given that the untapped coal reserves in the vicinity of Lephalale extend far into Botswana
- Extending the freight corridor from Northam westward to the Derdepoort border post
- Upgrade road and rail infrastructure to power stations in Mpumalanga, and to Richards Bay, in the medium to longer term, to facilitate coal transport for beneficiation and export respectively
- Polokwane-Makhado-Musina to Cairo (road and rail upgrading)

Sub-frame 5: National Ecological Infrastructure and Natural Resource System

National ecological infrastructure and the natural resource system provide a natural resource foundation that enables all human life and activities in the country, and must, as such, be wisely used, managed and protected. It includes areas regarded as strategic assets in the country's national and international biodiversity, ecology and tourism areas (including Ramsar Sites and Transfrontier Parks). The protection of this system requires that:

- National spatial development be planned and managed well in order to: (1) limit negative impact on the ecological infrastructure system, (2) ensure that urban growth and land use fit within national and regional water resource availability profiles, and (3) ensure that land and/or settlements development does not threaten or compromise strategic surface and groundwater water production areas
- National water use be curbed through effective water demand management, recycling, infrastructure maintenance and water augmentation projects
- The strategic national water resource infrastructure system be well maintained, and the restoration of degraded water areas be prioritised

The implication for the province is that all Protected Areas should be maintained and strengthened to ensure the effective use and beneficiation of national protected areas in accordance with the relevant regulations. These areas include Transfrontier Parks, Provincial Parks and National Fresh Water Protection Areas. Critical Biodiversity Areas (CBAs) and Strategic Water Source Areas (SWSAs) have been identified as Priority National Ecological Infrastructure Regions that are of national importance and development.

The maintenance, extension and upgrading of strategic water reticulation and resource infrastructure (including dams, reservoirs and transfer pipelines) will be prioritised to support nationally significant spatial development areas. The NSDF further proposes that settlement growth in areas that are arid and increasingly under pressure, in terms of water availability, should be managed well, which may even include restrictions on further growth, should water availability not improve.

LSDF response

The Limpopo Province is endowed with natural resources and great economic potential. Equally so, the Province is plagued by severe water shortages that have impacted on several economic developments. The Province will therefore strengthen regional co-operation with neighbouring countries such as Zimbabwe, to augment the available water resources. In addition, it will be critical to focus on major investments in water resource developments, improved efficiencies in water provisions, and better alignment between bulk water infrastructure and reticulation. Stronger intergovernmental relations (IGR) and collaboration is also required, as the responsibility for water provision is located in different spheres of government.

6 SOCIO-ECONOMIC PROFILE

The demographic and social conditions provide a background to understanding the dynamics of the socio-economic environment and the relationship between social and economic factors in the Province. The development of the Limpopo Development Plan necessitates the planning process to consider the population dynamics within the Province to ensure that all citizens have equitable access to basic services, as enshrined in the Constitution.

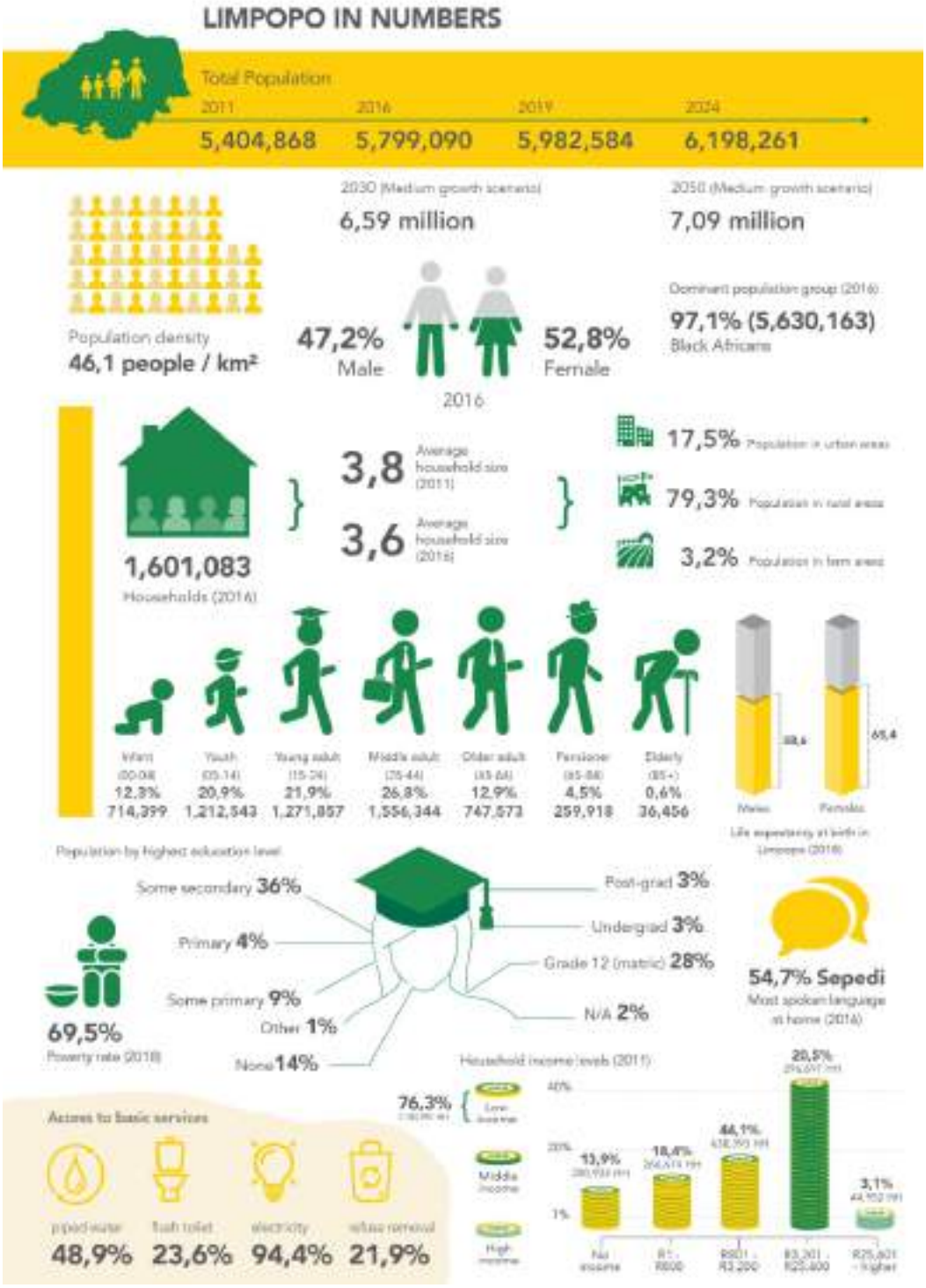


Figure 15: Limpopo Province: socio-economic overview

6.1 Population and household indicators

According to the StatsSA Community Survey 2016, the overall population of the province totalled 5,799,090, an increase of 7.29%, or 394,222, from 2011. The average annual growth rate of the Province is relatively slow but positive, with an estimated growth of 1.42% per annum from 2011 to 2016. The population and household indicators of the Limpopo Province, and the five districts under its jurisdiction, are summarised in Table 3 below.

Table 3: Provincial and district population and household indicators, 2011 and 2016

Indicator		Limpopo Province	Capricorn District	Mopani District	Sekhukhune District	Vhembe District	Waterberg District
Population							
2011	**Population**	**5,404,868**	1,261,463	1,092,507	1,076,840	1,294,722	679,336
	Population as % of provincial total	**100%**	23.3%	20.2%	19.9%	24.0%	12.6%
2016	**Population**	**5,799,090**	1,330,436	1,159,185	1,169,762	1,393,949	745,758
	Population as % of provincial total	**100%**	22.9%	20.0%	20.2%	24.0%	12.9%
2011 to 2016	**Population growth in numbers**	**394,222**	68,973	66,678	92,922	99,227	66,422
	Population growth as % of provincial total	**100%**	17.5%	16.9%	23.6%	25.2%	16.8%
	Total population growth (%)	**7.3%**	5.5%	6.1%	8.6%	7.7%	9.8%
Population density 2011		**43.0**	58.1	54.5	79.6	50.6	15.1
Population density 2016		**46.1**	61.3	57.9	86.5	54.4	16.6
Households							
2011	**Households**	**1,418,102**	342,838	296,320	263,802	335,276	179,866
	Households as % of provincial total	**100%**	24%	21%	19%	24%	13%
2016	**Households**	**1,601,083**	378,301	338,427	290,527	382,357	211,471
	Households as % of provincial total	**100%**	23.6%	21.1%	18.1%	23.9%	13.2%
2011 to 2016	**Household growth in numbers**	**182,981**	35,463	42,107	26,725	47,081	31,605
	Total household growth (%)	**12.9%**	10.3%	14.2%	10.1%	14.0%	17.6%
Average household size 2011		**3.81**	3.68	3.69	4.08	3.86	3.78
Average household size 2016		**3.62**	3.52	3.43	4.03	3.65	3.53

Source: StatsSA, Census 2011 and Community Survey 2016

The average household size decreased across all districts, to a provincial average household size of 3.62 in 2016. The Sekhukhune District is the only district with a household size greater than four.

Figure 16 indicates the proportional distribution of population per district, as well as the geographical land area of each district. In general, the proportional percentage distribution of population is relatively even across the districts. The Waterberg District covers the largest portion of the Province's geographical area. The most significant portion of Limpopo's population, and households, reside in the Vhembe District, followed by the Capricorn District Municipality.

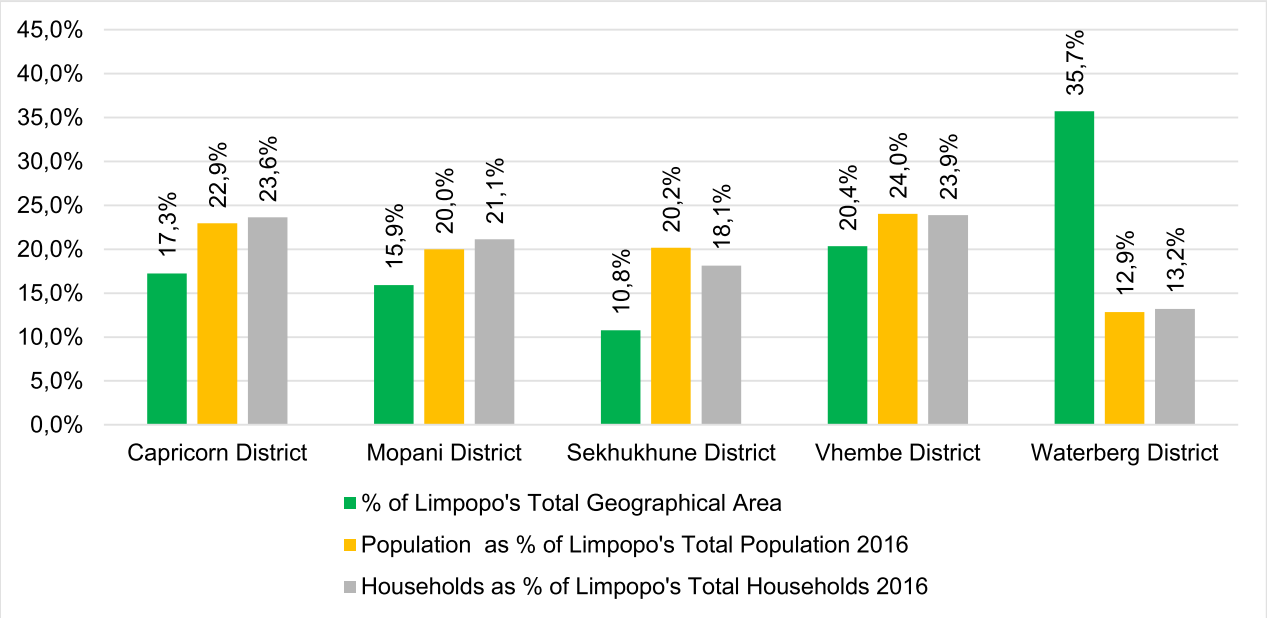


Figure 16: Population and household distribution per district, 2016
Source: StatsSA, Community Survey 2016

The StatsSA mid-year population estimates (MYPE), 2019, published on 29 July 2019, estimates the Limpopo Province as having a population of 5,982,584 by 2019, and a household total of 1,735,802, which is anticipated to increase to a total population of 6,198,261 and a total of 1,938,866 households in 2024.

The StatsSA MYPE 2019 estimates for the population and household projections for 2019 to 2024 at district and local municipal level, are shown in Table 4.

The average annual household growth rate for the province is 2.2%. Ten municipalities are expected to have growth rates higher than the provincial average. StatsSA applied the highest annual average household growth rates to Musina (4.1%), FetakgomoTubatse (3.3%), Collins Chabane (2.8%), Polokwane (2.7%) and Bela Bela (2.7%).

Over this period, the municipalities of Polokwane, FetakgomoTubatse, Thulamela and Makhado are expected to experience the highest growth in household numbers. Although the municipalities of Blouberg, Lepelle-Nkumpi, Molemole and Makhuduthamaga are expected to have a negative population growth in numbers, no municipalities are expected to have a negative growth in household numbers. The decrease in population but not in household numbers can be attributed to a decrease in household size.

Long-term population projections by the CSIR (Greenbook 2019) estimates the provincial population to be 6.59 million (medium-growth scenario) to 6.76 million (high-growth scenario) in 2030. The population is anticipated to be 7.09 million (medium-growth scenario) to 7.57 million (high-growth scenario) in 2050.
Spatial representations of the medium-growth scenarios are shown in Figure 17 and Figure 18.

Table 4: Limpopo Province: population and household projections 2019 to 2024

Province, District and Municipality	Population		Population total growth in numbers 2019 - 2024	Population CAGR[1] 2019 - 2024	Population growth as % of district total	Households		Households total growth in numbers 2019 - 2024	Households CAGR 2019 - 2024	Household growth as % of district total
	2019	2024				2019	2024			
Limpopo Province	**5,982,584**	**6,198,261**	**215,677**	**0.7%**		**1,735,802**	**1,938,866**	**203,064**	**2.2%**	
Capricorn District	**1,343,501**	**1,364,845**	**21,344**	**0.3%**	**100.0%**	**408,860**	**451,804**	**42,944**	**2.0%**	**100.0%**
Blouberg	170,841	164,018	(6,822)	-0.8%	-32.0%	46,524	47,921	1,397	0.6%	3.3%
Lepelle-Nkumpi	222,872	214,487	(8,385)	-0.8%	-39.3%	61,519	64,390	2,871	0.9%	6.7%
Molemole	118,084	111,157	(6,927)	-1.2%	-32.5%	34,624	35,025	401	0.2%	0.9%
Polokwane	831,706	875,183	43,477	1.0%	203.7%	266,193	304,468	38,275	2.7%	89.1%
Mopani District	**1,206,998**	**1,247,593**	**40,596**	**0.7%**	**100.0%**	**355,641**	**395,770**	**40,130**	**2.2%**	**100.0%**
Ba-Phalaborwa	184,581	198,646	14,065	1.5%	34.6%	51,773	58,348	6,575	2.4%	16.4%
Greater Giyani	264,839	273,161	8,322	0.6%	20.5%	72,176	80,727	8,551	2.3%	21.3%
Greater Letaba	219,856	220,300	444	0.0%	1.1%	66,642	72,098	5,456	1.6%	13.6%
Greater Tzaneen	432,756	447,995	15,238	0.7%	37.5%	134,485	150,933	16,449	2.3%	41.0%
Maruleng	104,965	107,492	2,527	0.5%	6.2%	30,566	33,664	3,098	1.9%	7.7%
Sekhukhune District	**1,213,691**	**1,270,587**	**56,896**	**0.9%**	**100.0%**	**296,592**	**329,408**	**32,816**	**2.1%**	**100.0%**
Elias Motsoaledi	271,737	280,577	8,840	0.6%	15.5%	65,935	70,564	4,629	1.4%	14.1%
Ephraim Mogale	143,694	150,461	6,768	0.9%	11.9%	38,976	42,871	3,895	1.9%	11.9%
FetakgomoTubatse	521,712	566,410	44,697	1.7%	78.6%	131,414	154,548	23,134	3.3%	70.5%
Makhuduthamaga	276,547	273,139	(3,408)	-0.2%	-6.0%	60,267	61,425	1,158	0.4%	3.5%
Vhembe District	**1,456,706**	**1,525,278**	**68,573**	**0.9%**	**100.0%**	**428,525**	**491,343**	**62,819**	**2.8%**	**100.0%**
Collins Chabane	364,871	380,908	16,037	0.9%	23.4%	101,443	116,367	14,924	2.8%	23.8%
Makhado	440,983	456,645	15,662	0.7%	22.8%	130,820	148,321	17,501	2.5%	27.9%
Musina	144,022	163,835	19,813	2.6%	28.9%	53,537	65,441	11,904	4.1%	19.0%
Thulamela	506,830	523,890	17,061	0.7%	24.9%	142,724	161,214	18,490	2.5%	29.4%
Waterberg District	**761,689**	**789,958**	**28,269**	**0.7%**	**100.0%**	**246,184**	**270,540**	**24,356**	**1.9%**	**100.0%**
Bela-Bela	76,827	81,624	4,797	1.2%	17.0%	26,302	30,074	3,772	2.7%	15.5%
Lephalale	140,270	151,197	10,927	1.5%	38.7%	43,718	48,199	4,481	2.0%	18.4%
Modimolle-Mookgophong	131,384	139,959	8,574	1.3%	30.3%	45,043	50,619	5,575	2.4%	22.9%
Mogalakwena	307,752	302,540	(5,212)	-0.3%	-18.4%	92,056	98,927	6,870	1.4%	28.2%
Thabazimbi	105,455	114,638	9,183	1.7%	32.5%	39,064	42,722	3,657	1.8%	15.0%

Source: StatsSA mid-year population estimates 2019, published 29 July 2019

[1] Compound Annual Growth Rate

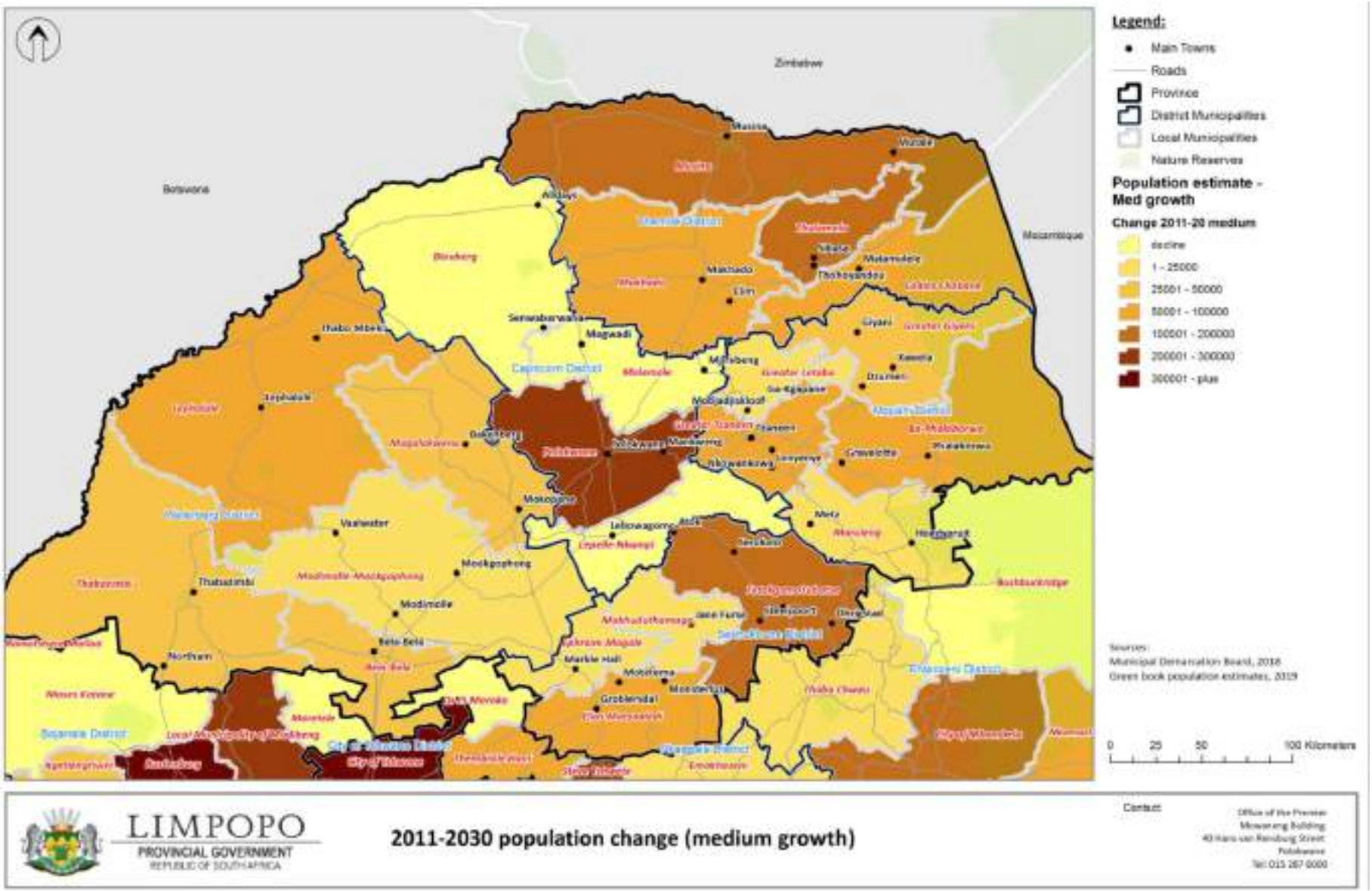


Figure 17: Limpopo Province: spatial representation of 2011-2030 population change (medium growth)

Sources: Municipal Demarcation Board 2018; Green book population estimates 2019

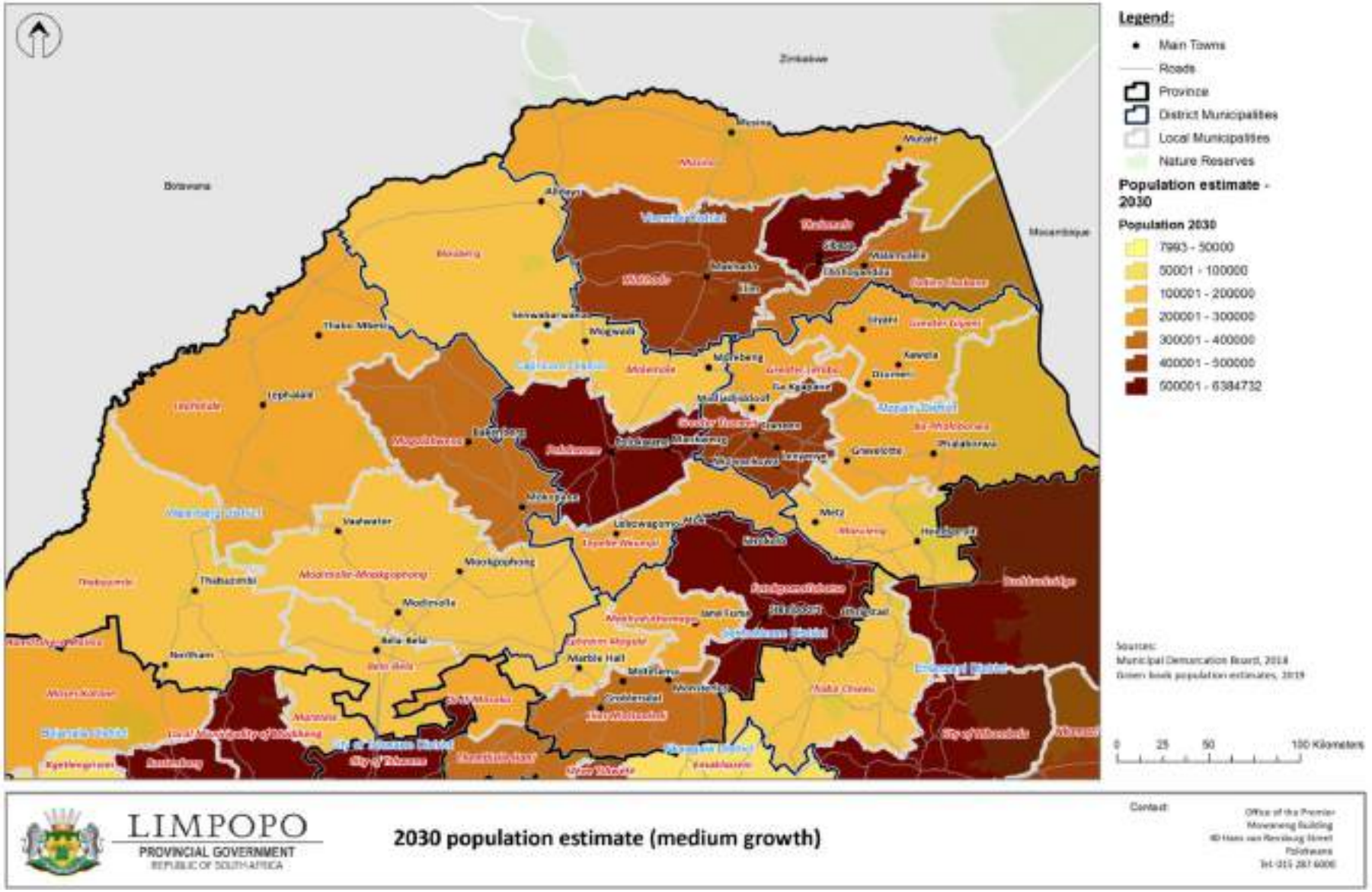


Figure 18: Limpopo Province: spatial representation of 2030 population estimate (medium growth)

Sources: Municipal Demarcation Board 2018; Green book population estimates 2019

6.2 Population groups

Black Africans are the dominant population group in the Province, constituting 97.1%, or 5,630,163 people in 2016. The White population group constituted 2.3% of the total population (135,003 people) in the Province in 2016, while the Coloured and Indian/Asian groups respectively each constituted 0.3% of the total provincial population in 2016.

Table 5: Population groups at provincial and district level, 2016

Province and District	Black African		Coloured		Indian or Asian		White	
	Number	% of total	Number	% of total	Number	% of total	Number	% of total
Limpopo	**5,630,163**	**97.1%**	**16,839**	**0.3%**	**17,085**	**0.3%**	**135,003**	**2.3%**
Capricorn	1,290,255	22.2%	7,766	0.1%	5,598	0.1%	26,817	0.5%
Mopani	1,130,512	19.5%	2,128	0.0%	2,918	0.1%	23,628	0.4%
Sekhukhune	1,153,458	19.9%	2,175	0.0%	860	0.0%	13,269	0.2%
Vhembe	1,375,123	23.7%	2,499	0.0%	5,036	0.1%	11,291	0.2%
Waterberg	680,815	11.7%	2,272	0.0%	2,673	0.0%	59,998	1.0%

Source: StatsSA, Community Survey 2016

6.3 Home language

Sepedi is the language most spoken at home within the Province, with 54.7%, or 3,172,915 people, speaking Sepedi at home in 2016. Tshivenda accounts for 16.7% of the population's home language, followed by Xitsonga with 16.2%.

6.4 Age and gender

There are more women (52.8%) than men in the Limpopo Province, which points to the lower life expectancy of men and to the high incidence of men from Limpopo who work in other provinces. Females comprised the highest proportion of the population group aged 80+. Female life expectancy exceeded that of males, and this is expected to continue. During the preceding five years, female life expectancy exceeded that of males by six years. For the country, women comprise 51.3% of the population.

The population structure of the Limpopo Province is skewed towards a youthful population and this indicates that the composition of the population is growing, especially among infants, teenagers and youth. The largest proportion of both males and females are younger than 15 years, whereas the proportion of the total population of those aged 20-24 and 30-34 years are equal for both males and females.

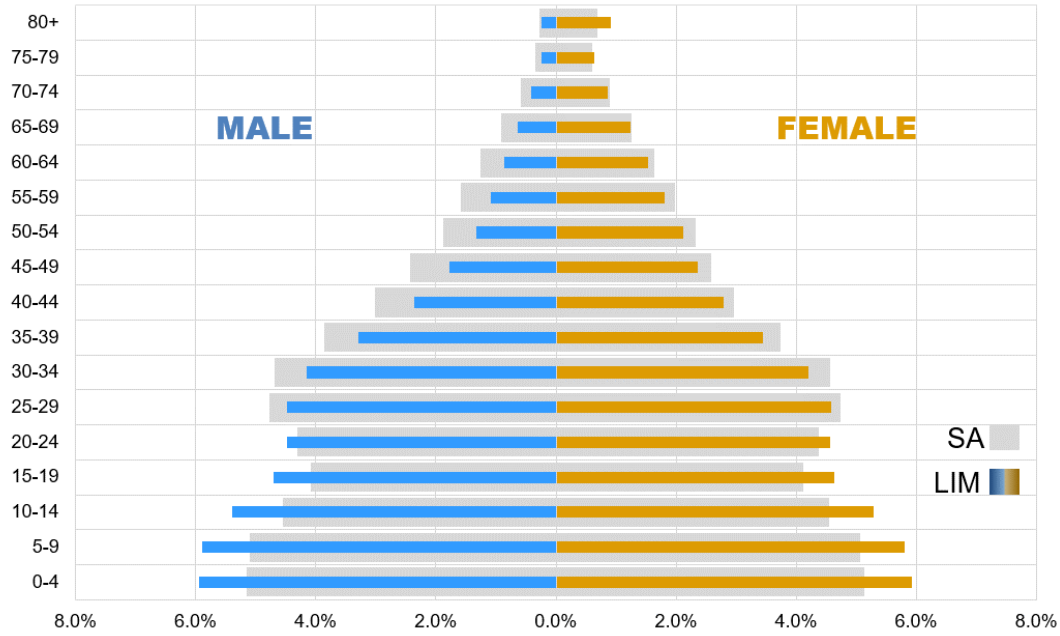


Figure 19: Limpopo: age gender pyramid, 2018

Source: StatsSA mid-year population estimates 2019, published 29 July 2019

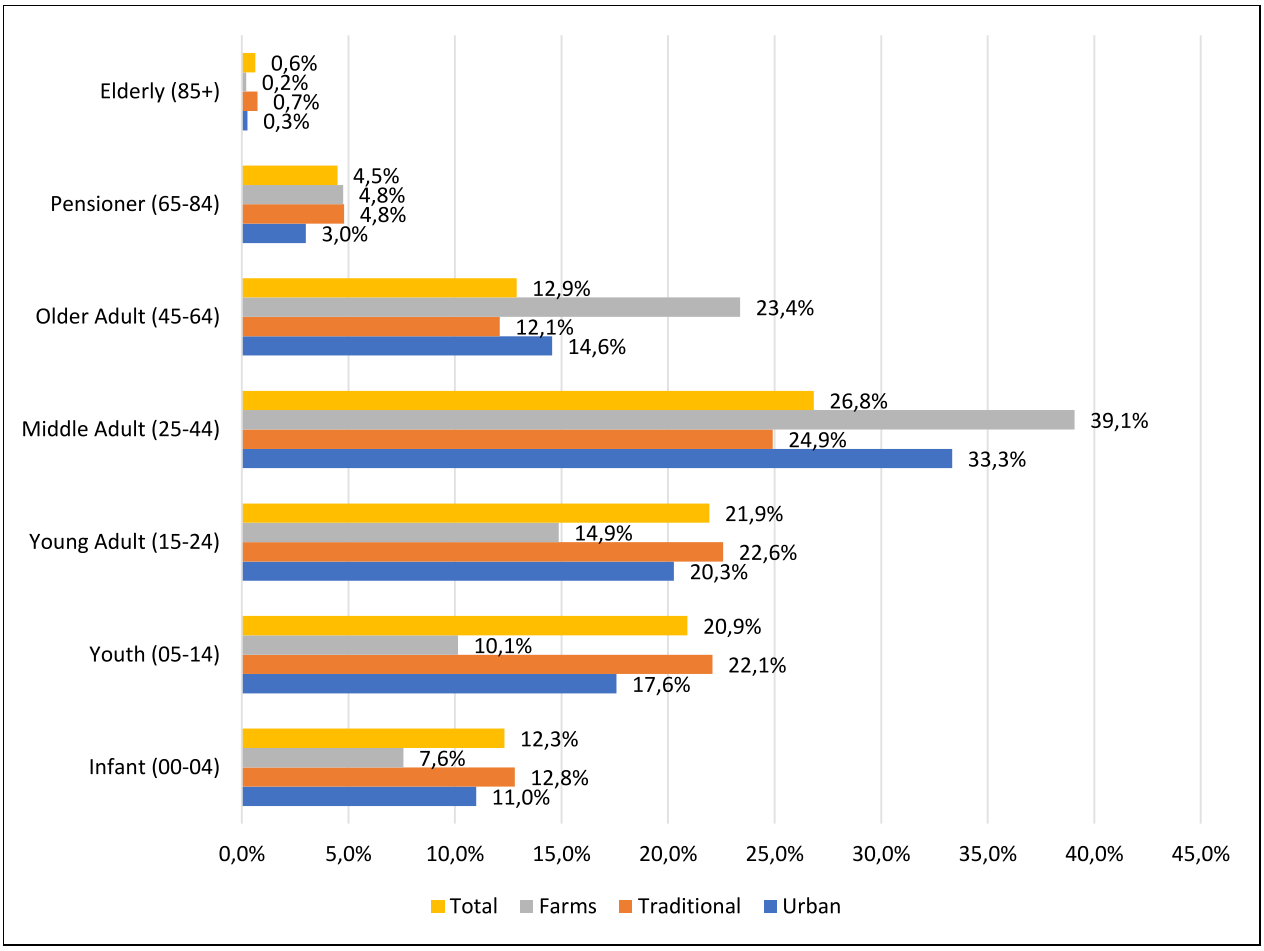


Figure 20: Limpopo: age structure per geography type, 2016

Source: StatsSA, Community Survey 2016

The population distribution is heavily skewed toward the traditional areas, where 4,596,390 people (79.3% of the total population of Limpopo) resided in traditional areas in 2016. While this trend holds true for all age

cohorts, a comparatively higher percentage of people classified as Middle Adult (25-44 years) and Older Adult (45-64 years) resided in urban areas in 2016, when a comparison is done based on the number of people per age cohort as a percentage of the total number of people in the same cohort. This could point to the fact that individuals forming part of the working age population tend to flock to urban areas in search of employment opportunities and better access to services and facilities.

Table 6: Limpopo: age structure per geography type, 2016

Age Cohort	Urban		Traditional		Farms		Total	
	Number	% of Total	Number	% of Total	Number	% of Total	Number	% of Total
Infant (00-04)	111,845	15.7%	588,529	82.4%	14,024	2.0%	714,399	100.0%
Youth (05-14)	178,865	14.8%	1,014,905	83.7%	18,773	1.5%	1,212,543	100.0%
Young Adult (15-24)	206,368	16.2%	1,037,987	81.6%	27,501	2.2%	1,271,857	100.0%
Middle Adult (25-44)	339,219	21.8%	1,144,830	73.6%	72,295	4.6%	1,556,344	100.0%
Older Adult (45-64)	148,124	19.8%	556,183	74.4%	43,266	5.8%	747,573	100.0%
Pensioner (65-84)	30,565	11.8%	220,559	84.9%	8,794	3.4%	259,918	100.0%
Elderly (85+)	2,688	7.4%	33,396	91.6%	372	1.0%	36,456	100.0%
Total	**1,017,675**	**17.5%**	**4,596,390**	**79.3%**	**185,025**	**3.2%**	**5,799,090**	**100.0%**

Source: StatsSA, Community Survey 2016

The high youth population level in Limpopo Province presents both an opportunity in terms of available active labour cohort, whilst the fact that 54% have limited requisite skills for the labour market and 38% are unemployed, presents a challenge if youth development is not systematically addressed.

6.5 Fertility rate

The total fertility rate in a specific year is defined as the total number of children that would be born to each woman if she were to live to the end of her child-bearing years and give birth to children in alignment with the prevailing age-specific fertility rates. Limpopo and the Eastern Cape have the highest fertility rates of the provinces, at 2.9 (refer to Figure 21), which is comparatively higher than the South African average fertility rate of 2.4.

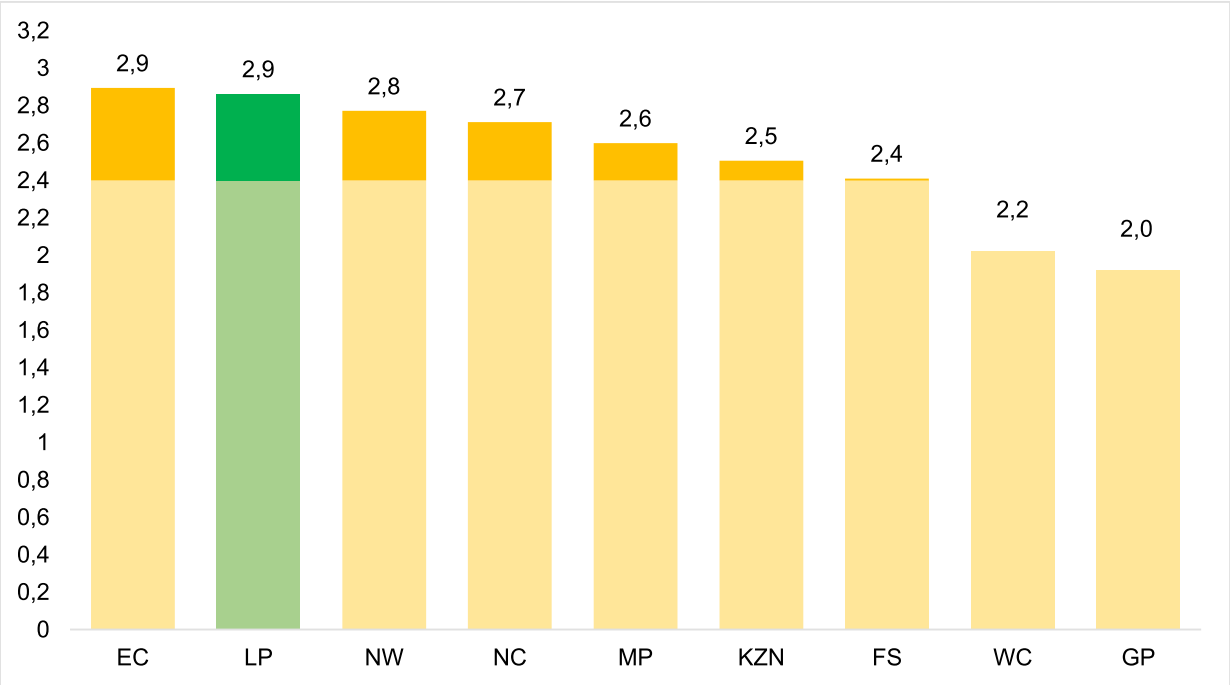


Figure 21: Total fertility rate by province, 2018

Source: StatsSA mid-year population estimates 2019, published 29 July 2019

The Age-Specific Fertility Rate (ASFR) is another useful metric to consider when assessing fertility, and refers to the number of live births per 1,000 women in a specific age group for a specified geographic area and for a specific point in time, usually a calendar year. The ASFR, according to Census 2011 data for Limpopo, was the highest in the age groups 20-24 years and 25-29 years, where 109 and 111 births per 1,000 women were recorded respectively. While the ASFR was also the highest in the age groups 20-24 years and 25-29 years according to Community Survey 2016 data, the ASFR for each specific age cohort declined somewhat to 100,7 and 99,6 births per 1,000 women respectively. The ASFR for the age group 15-19 years was 57 according to Census 2011, which declined somewhat to 49, according to Community Survey 2016 data. Although a slight decline was evident between 2011 and 2016, the ASFR for this specific age cohort remains alarmingly high.

When the ASFR is analysed at a district and municipal level using Community Survey 2016 data, it is clear that the number of births per 1,000 women aged between 10-19 years of age, is concerningly high throughout the Province, but extremely high in Musina and Molemole Municipalities, where the ASFR was 100 and 74 respectively. Although the ASFR is highest amongst females aged 20-34 years, the ASFR for this age cohort is the highest in the Makhuduthamaga and Lephalale Municipalities, where an average of 139 and 152 births per 1,000 women across the age cohort were recorded respectively.

Table 7: Limpopo Province: Age-Specific Fertility Rate per district and municipality

Province, District and Municipality	Age cohort (years)								
	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54
Limpopo Province	**0**	**49**	**119**	**121**	**110**	**82**	**38**	**7**	**0**
Capricorn District	**0**	**40**	**106**	**117**	**104**	**78**	**31**	**6**	**0**
Blouberg	0	38	141	140	115	80	51	16	0
Lepelle-Nkumpi	0	49	108	98	94	100	20	9	0
Molemole	0	74	114	126	127	78	48	4	5
Polokwane	0	32	98	117	102	72	28	4	0
Mopani District	**1**	**45**	**113**	**119**	**105**	**79**	**39**	**8**	**1**
Ba-Phalaborwa	2	62	90	124	145	79	39	10	0
Greater Giyani	1	52	135	132	108	102	32	2	0
Greater Letaba	1	38	105	126	98	44	38	5	3
Greater Tzaneen	0	40	113	107	84	78	40	8	0
Maruleng	0	31	114	112	117	99	49	24	0
Sekhukhune District	**0**	**46**	**117**	**117**	**114**	**97**	**43**	**11**	**0**
Elias Motsoaledi	1	42	116	120	101	88	45	9	0
Ephraim Mogale	0	50	138	102	131	116	46	10	0
FetakgomoTubatse	0	48	101	107	105	89	40	5	0
Makhuduthamaga	1	43	138	141	138	110	47	21	0
Vhembe District	**1**	**65**	**131**	**130**	**109**	**78**	**37**	**5**	**0**
Collins Chabane	0	61	135	134	101	62	34	6	1
Makhado	1	62	126	126	120	62	41	2	0
Musina	0	100	160	121	111	73	23	0	0
Thulamela	1	63	123	134	106	102	39	7	0
Waterberg District	**0**	**50**	**134**	**124**	**128**	**78**	**42**	**5**	**1**
Bela-Bela	0	54	168	106	137	64	37	16	0
Lephalale	0	44	178	134	145	53	36	5	0
Modimolle-Mookgophong	3	55	124	143	110	62	27	0	8
Mogalakwena	0	49	118	118	122	85	45	5	0
Thabazimbi	0	50	81	117	134	122	61	0	0

Source: StatsSA, Community Survey 2016

6.6 Education

Adult education refers to the highest level of education obtained by individuals 20 years and older. The adult education levels of the study area are depicted in Figure 22.

When a comparison is done on how the level of education changed between 2011 and 2016, it is clear that the number of individuals above the age of 20 with no schooling declined across all districts, with a total decline of 3.1% on a provincial level. The situation remained fairly unchanged in the Capricorn District, where there was only a 0.6% decline in the percentage of individuals with no schooling between 2011 and 2016, while the largest decline is evident in the Sekhukhune and Waterberg Districts, where a decline of 4.7% and 4.8% was recorded respectively. An improvement is also noticeable in terms of the percentage of individuals above the age of 20 who have completed secondary education, with a total increase of 4% on a provincial level. In this instance, the Capricorn and Waterberg Districts showed the greatest improvement, with an increase of 5% and 4.9% respectively.

Table 8: Limpopo: comparison of level of education at district level, 2011 and 2016

Province and District	Year	Level of education						
		No schooling	Some primary education	Complete primary education	Some secondary education	Complete secondary education	Tertiary education	Unspecified/ other
Limpopo	**2011**	**17.0%**	**11.4%**	**4.3%**	**35.1%**	**22.2%**	**8.2%**	**1.9%**
	2016	**13.9%**	**8.9%**	**3.6%**	**37.8%**	**26.3%**	**7.5%**	**2.0%**
Capricorn	2011	13.0%	10.8%	4.1%	33.7%	24.9%	11.8%	1.8%
	2016	12.4%	7.8%	3.2%	34.3%	29.9%	9.9%	2.5%
Mopani	2011	21.0%	11.2%	4.1%	34.5%	20.8%	7.1%	1.3%
	2016	17.1%	8.9%	3.5%	36.8%	24.8%	6.9%	2.0%
Sekhukhune	2011	20.7%	11.3%	4.0%	37.1%	21.1%	4.9%	0.9%
	2016	16.0%	8.3%	3.1%	41.9%	24.3%	4.6%	1.8%
Vhembe	2011	17.4%	11.0%	4.5%	34.8%	21.5%	8.9%	2.0%
	2016	14.4%	9.1%	3.9%	37.7%	25.0%	8.4%	1.5%
Waterberg	2011	11.9%	13.3%	4.9%	35.6%	22.7%	7.1%	4.6%
	2016	7.1%	11.8%	4.5%	39.3%	27.6%	7.0%	2.7%

Source: StatsSA, Census 2011 and Community Survey 2016

When education levels are assessed on a district and municipal level, it is evident that the majority of individuals aged 20 and above have either completed, or obtained some, secondary education. Despite this, there is still a significant percentage of people across Limpopo who have no schooling whatsoever. The Waterberg District has the lowest incidence of individuals with no schooling (7.1% at a district level), while the Mopani and Sekhukhune Districts have the highest number of individuals with no schooling (17.7% and 16% respectively). Overall, the Greater Letaba Municipality has the highest number of individuals with no schooling, with nearly twice as many individuals with no schooling than the provincial figure (26.7%).

In terms of tertiary education at a district level, the Capricorn and Vhembe Districts have more individuals with a tertiary education than the provincial average (9.9% and 8.4% respectively, compared to 7.5%). At a municipal level, the Polokwane Municipality has the highest percentage of individuals with a tertiary education (12%), followed by the Thulamela Municipality where 10.5% of persons aged 20 and above have a tertiary education. The Ephraim Mogale and FetakgomoTubatse Municipalities in the Sekhukhune District have the lowest percentage of individuals with a tertiary education.

Table 9: Limpopo: highest level of education per district and municipality, 2016

Province, District and Municipality	Level of education						
	No schooling	Some primary education	Complete primary education	Some secondary education	Complete secondary education	Tertiary education	Unspecified/ other
Limpopo Province	**13.9%**	**8.9%**	**3.6%**	**37.8%**	**26.3%**	**7.5%**	**2.0%**
Capricorn District	**12.4%**	**7.8%**	**3.2%**	**34.3%**	**29.9%**	**9.9%**	**2.5%**
Blouberg	19.5%	11.7%	4.2%	39.1%	18.9%	5.1%	1.5%
Lepelle-Nkumpi	15.6%	9.1%	3.9%	36.6%	26.6%	6.8%	1.4%
Molemole	20.2%	8.5%	3.5%	36.2%	21.5%	7.3%	2.7%
Polokwane	9.2%	6.6%	2.8%	32.6%	33.9%	12.0%	2.9%
Mopani District	**17.1%**	**8.9%**	**3.5%**	**36.8%**	**24.8%**	**6.9%**	**2.0%**
Ba-Phalaborwa	12.9%	7.5%	3.3%	37.0%	30.6%	6.8%	2.0%
Greater Giyani	20.5%	9.2%	3.6%	34.8%	22.5%	7.5%	1.8%
Greater Letaba	26.7%	7.5%	2.6%	35.2%	20.5%	5.3%	2.1%
Greater Tzaneen	13.2%	9.9%	4.0%	37.5%	26.8%	7.0%	1.7%
Maruleng	13.3%	8.9%	3.5%	41.8%	20.9%	8.7%	2.9%
Sekhukhune District	**16.0%**	**8.3%**	**3.1%**	**41.9%**	**24.3%**	**4.6%**	**1.8%**
Elias Motsoaledi	15.8%	9.0%	3.4%	39.1%	26.1%	4.9%	1.7%
Ephraim Mogale	17.2%	9.6%	4.0%	40.9%	22.5%	3.9%	1.9%
Fetakgomo Tubatse	16.2%	6.9%	2.6%	43.8%	24.4%	4.1%	2.0%
Makhuduthamaga	15.2%	9.7%	3.2%	41.5%	23.0%	5.7%	1.6%
Vhembe District	**14.4%**	**9.1%**	**3.9%**	**37.7%**	**25.0%**	**8.4%**	**1.5%**
Collins Chabane	20.7%	10.5%	3.8%	35.8%	21.3%	6.3%	1.7%
Makhado	17.9%	8.3%	3.4%	35.9%	24.7%	8.2%	1.6%
Musina	9.6%	8.5%	5.9%	46.0%	22.0%	6.4%	1.7%
Thulamela	8.7%	9.1%	3.9%	37.9%	28.6%	10.5%	1.2%
Waterberg District	**7.1%**	**11.8%**	**4.5%**	**39.3%**	**27.6%**	**7.0%**	**2.7%**
Bela-Bela	4.1%	12.0%	4.6%	36.9%	32.5%	8.4%	1.4%
Lephalale	6.0%	8.7%	3.8%	43.7%	27.9%	7.6%	2.4%
Modimolle-Mookgophong	6.4%	17.2%	5.0%	34.1%	27.5%	6.8%	2.8%
Mogalakwena	10.2%	11.9%	4.1%	39.2%	24.4%	7.3%	2.8%
Thabazimbi	3.7%	10.2%	5.6%	39.8%	31.8%	4.9%	3.9%

Source: StatsSA, Community Survey 2016

There seems to be somewhat of a correlation between low levels of education and high incidences of teenage pregnancies (births by females between 10-19 years of age). Although this trend cannot be generalised across the Province, it holds true for the following municipalities:

Table 10: Limpopo: correlation between low levels of education and high incidences of teenage pregnancies

Municipality	Level of education		ASFR per age cohort (years)	
	No schooling	Some primary education	10-14	15-19
Molemole	20.2%	8.5%	0	74
Greater Giyani	20.5%	9.2%	1	52
Ephraim Mogale	17.2%	9.6%	0	50
FetakgomoTubatse	16.2%	6.9%	0	48
Collins Chabane	20.7%	10.5%	0	61
Makhado	17.9%	8.3%	1	62

Source: StatsSA, Community Survey 2016

Approximately 13.9% of the Limpopo Province's adult population have no form of schooling. In excess of a quarter of the Province's adult population (26.3%) have completed secondary school (Grade 12/matric), while approximately 38% have completed some secondary schooling. Only 7.5% of the adult population have obtained a higher education, which indicates that most of the labour force has no, or very limited, basic skills.

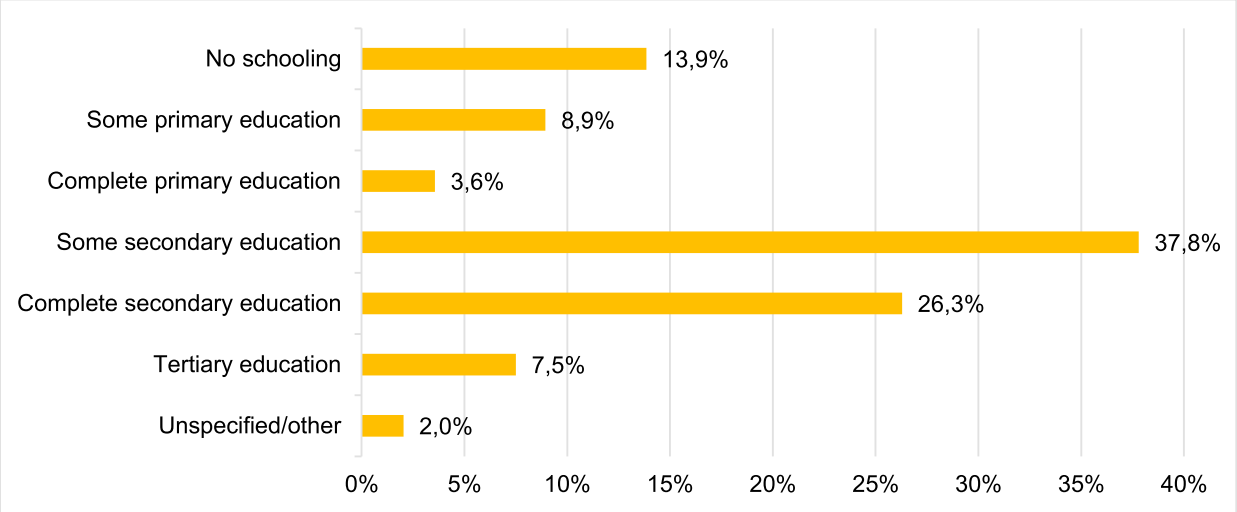


Figure 22: Limpopo: adult population by highest educational level (age 20+), 2016
Source: StatsSA, Community Survey 2016

6.7 Migration

Inter-provincial and international migration patterns significantly influence the provincial population numbers and structures in South Africa. The Limpopo Province recorded the second-highest negative net migration of 138,000 in South Africa, second to the Eastern Cape. In 2017, Limpopo experienced an out-migration of 417,000 compared to an in-migration of 278,000, totalling a net migration of -138,000 individuals. Most of the out-migrants are youths between the ages of 15 and 29 years. The out-migrants may be people who have qualifications but who fail to find employment in the Province, or people who are not economically active but who are looking for schooling opportunities outside the Province. This out-migration trend emphasises the need to create skills development and job opportunities within the Province.

Figure 23 indicates that Limpopo lost the second-most residents due to migration in 2018. Opportunities of employment, study and quality of life play an important role amongst the push-pull factors between Limpopo and Gauteng.

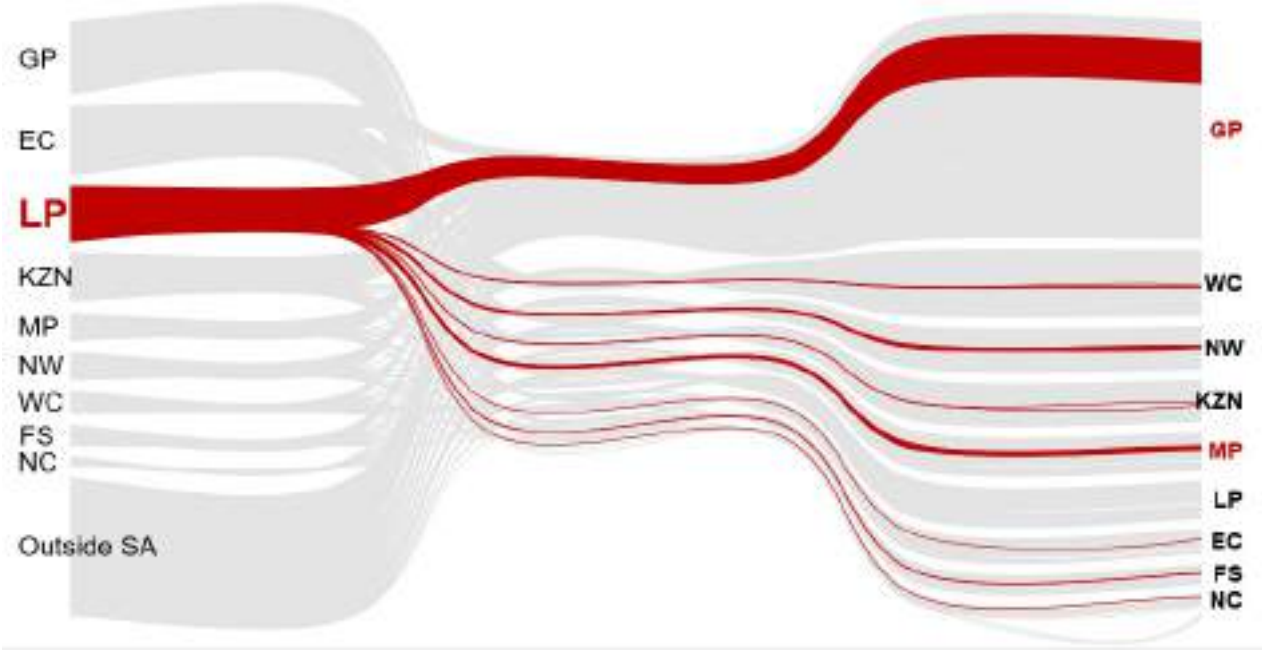


Figure 23: Limpopo: net migration 2016-2021 as a sending region
Source: StatsSA mid-year population estimates 2019, published 29 July 2019

Figure 24 indicates the population of Limpopo and the districts of previous residence of Limpopo's current residents, excluding individuals that indicated that their previous residence was Limpopo (i.e. the province in which the individual lived before moving to Limpopo).

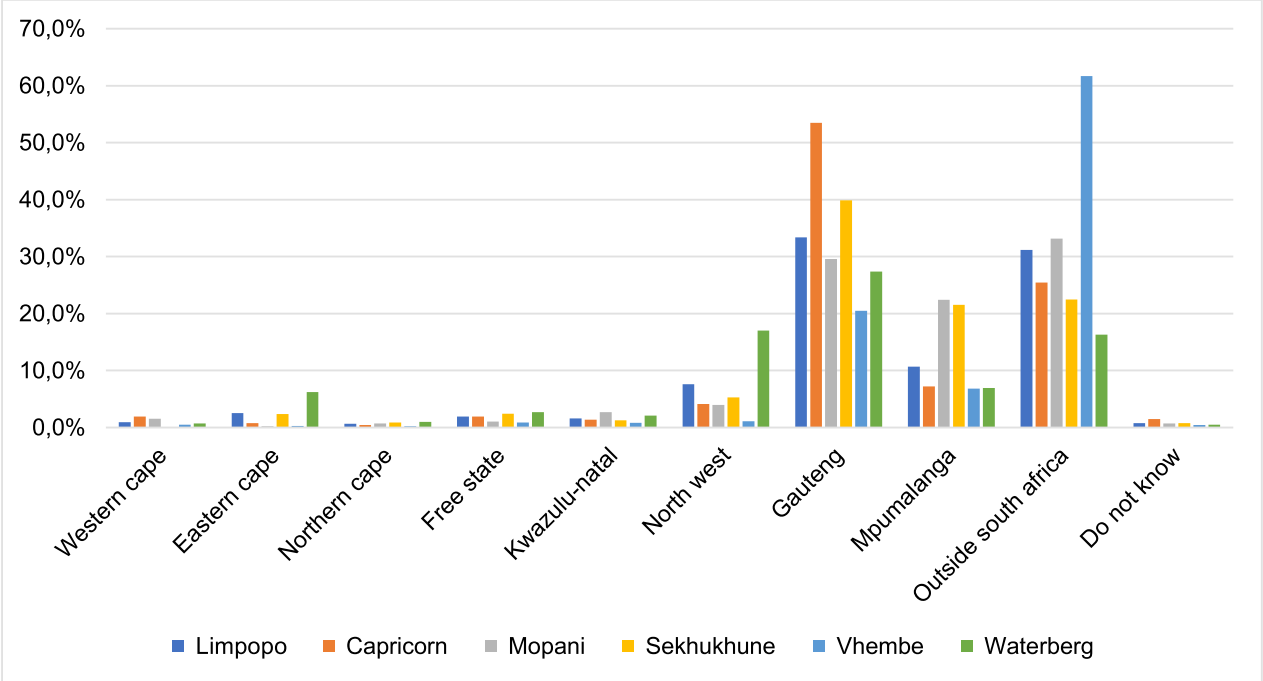


Figure 24 Province of previous residence, 2016
Source: StatsSA, Community Survey 2016

Approximately 108,039 individuals (contributing 1.9% to the province's total population in 2016) migrated to the Limpopo Province, according to Community Survey 2016. The largest portion of these individuals are either from Gauteng (33.4%), outside of South Africa (31.2%), or Mpumalanga (10.7%). This trend is prevalent across all districts, with the exception of Sekhukhune, which shows a large portion of migration from the North West Province. According to the 2019 Socio-Economic Review and Outlook (SERO) Report Limpopo, special

attention should be given to the Sekhukhune and Waterberg districts when planning the allocation of the provincial resources, as these two mining districts have a high potential to outgrow the other districts due to inward migration as people may be flocking in looking for better employment opportunities in the mines.

6.8 Urbanisation

In 2016, only 17.5% of the provincial population resided in urban areas, whilst 82.5% of the total population lived in traditional and rural (farm) areas. There was a small decline in the proportion of the urban population from 2011 to 2016, from 17.9% to 17.5% against an increase in the proportion of the traditional population from 77.7% in 2011 to 79.3% in 2016. Despite the slight decline in the urban population rate, there was still a growth in the urban population numbers of 48,300 persons from 2011 to 2016, to a total urban population of 1,017,675. The traditional population grew in the same period by 399,222 persons, to a total population of 4,596,390. However, the rural (farm) population declined over the same period by 53,300 persons, which illustrates a continuing trend in the depopulation of the rural areas towards urban and traditional areas.

6.9 Household income and poverty trends

According to the StatsSA Living Conditions Survey 2014/2015, the provinces with the highest headcount of adult poverty in South Africa are Limpopo (67.5%), Eastern Cape (67.3%), KwaZulu-Natal (60.7%) and North West (59.6%). The majority of households (76.4%) earn below R3,200 per month (StatsSA Census 2011). Despite an improvement in the number of people living in poverty since 1996, the current level of poverty is still unacceptably high. Poverty in Limpopo declined from 75.9% (4.243 million) in 2009, to 66.7% (3.637 million) in 2011. However, the trajectory turned upwards, with 69.5% (4.087 million) of the population in the Province living in poverty in 2018. Vhembe has the highest number of people living in poverty, followed by Sekhukhune, whilst Waterberg has the least at 69.55%.

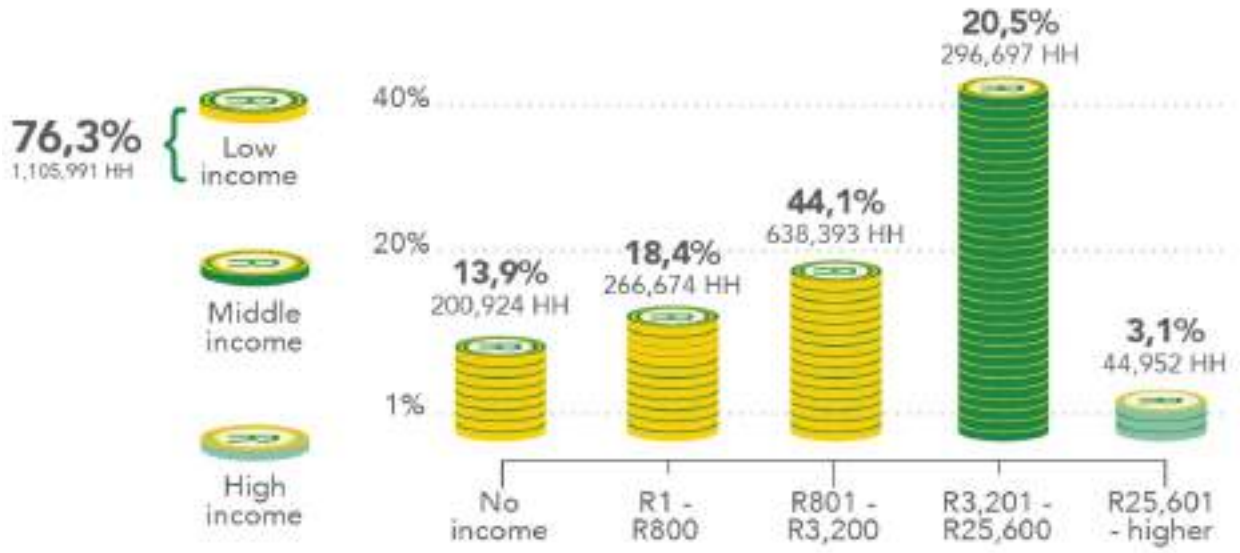


Figure 25: Limpopo: household income levels, 2011
Source: StatsSA Census 2011

The primary driver of poverty in Limpopo, according to StatsSA data for 2001, 2011 and 2016, was consistently indicated to be unemployment, with years of schooling cited as the second-strongest driver. Unemployment as primary poverty driver increased in significance between 2001 and 2011, and again between 2011 and 2016. Although a number of poverty drivers have been identified (such as access to water and sanitation, school attendance, dwelling type, assets and access to energy), none of them have been identified as particularly strong drivers.

The poverty numbers for 2011 were linked to the mesozones[2] in order to reflect the spatial distribution of poverty across the Province (refer to Figure 26). It can be observed that poverty pockets are spread across most parts of the traditional settlement areas, with higher concentrations in the larger settlement types, i.e. district and local service points. The urbanisation of poverty is also displayed, with higher concentrations in all urban nodes, as people move to more formal towns in the hope of finding employment and access to services. There is also a further correlation between the spatial distribution of poverty pockets and the occurrence of informal settlements in the Province.

[2] The mesozone set is a demarcation of South Africa into a complete grid of 25 000 spatial units.

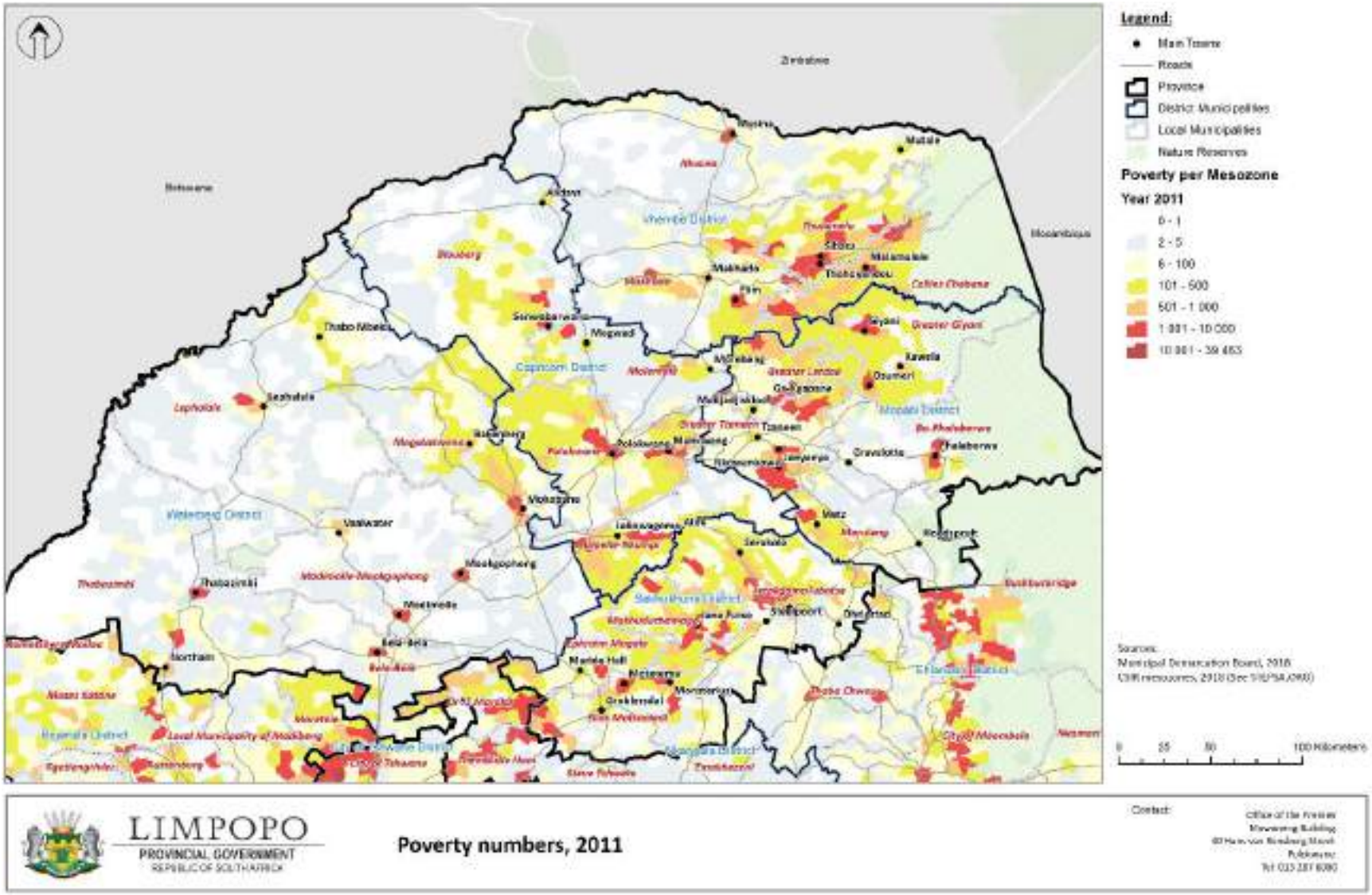


Figure 26: Limpopo: poverty numbers per mesozone, 2011

Sources: Municipal Demarcation Board 2018; CSIR mesozones 2018

6.10 Inequality and levels of human development

To reflect on inequality and levels of human development, two indicators are used, namely the Gini coefficient and the Human Development Index (HDI).

6.10.1 Gini coefficient

Th Gini coefficient is a measure of statistical dispersion intended to represent the income or wealth distribution of a region's residents, and is the most commonly used measurement of inequality. A Gini coefficient of zero expresses perfect equality, where all values are the same (for example, where everyone has the same income). A coefficient of one (or 100%) expresses maximum inequality among values.

In Figure 27, the coefficient is reflected at local municipal level. Most areas have medium to high levels of inequality and are at a level of 60% or higher. The level of inequality is the highest in the municipalities of Polokwane, Greater Tzaneen, Maruleng and Greater Giyani. This could be attributed to the range of poor, as well as more affluent, residents, creating a larger overall gap.

A country's or region's development is often measured by its economic growth. However, this is not always a true reflection of the levels of human development: policies and actions do not always translate into human development and growth.

6.10.2 Human Development Index

The Human Development Index (HDI) is a key measure used by the United Nations to assess the relative level of socio-economic development in countries. In everyday parlance, the HDI is a measure of peoples' ability to live a long and healthy life, to communicate, to participate in the community and to have sufficient means to be able to afford a decent living. The HDI is thus a composite of three factors reflecting longevity, economic prosperity, and schooling. More specifically, the variables used are:

- Life expectancy at birth
- Per capita income
- Level of education based on the adult literacy rate and the average number of years of schooling of adults

According to the United Nations Development Programme (UNDP) Human Development Report 2019, South Africa's HDI was 0.705 in 2018. This is only slightly higher than that of the Limpopo Province, which was 0.704 in 2018.

However, the overall levels of development for Limpopo are low compared to those of other parts of the country. Only some municipalities, those in close proximity to Gauteng, reflect higher HDI scores.

The uniformity of HDI scores in the Province can be seen as a positive when there is no large variation between municipalities. It seems that the development efforts in the region have had the same result, which could be attributed to social investments. It is also likely that the grants economy has provided a basic safety net and contributed to the broad standard of living in the region. A finer settlement-based HDI would have been preferable to detect spatial differences in human development (expected lower HDI values in some municipalities where there is likely to be more poverty compared to the remaining areas).

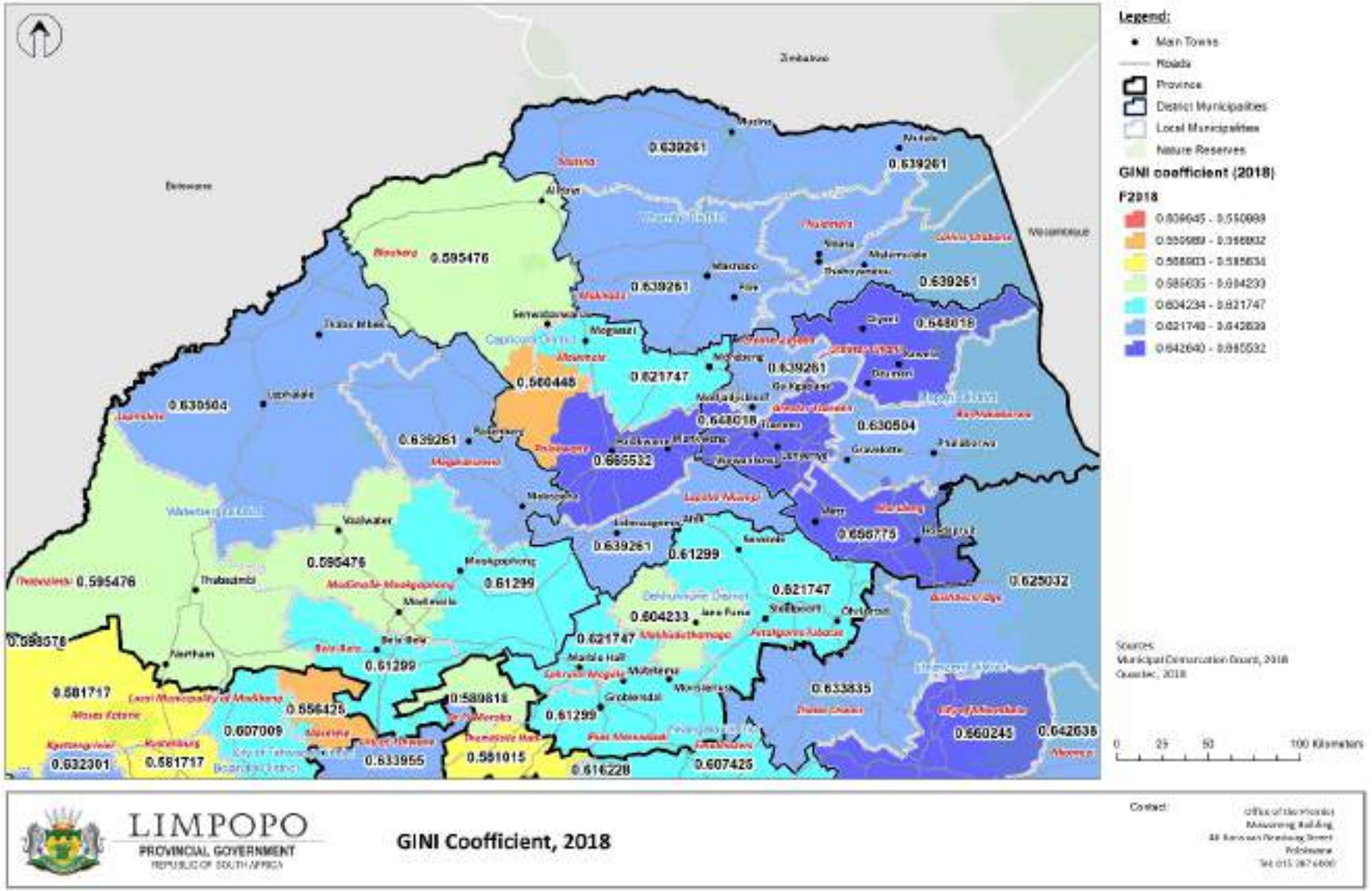


Figure 27: Limpopo: Gini coefficient, 2018

Sources: Municipal Demarcation Board 2018; Quantec 2018

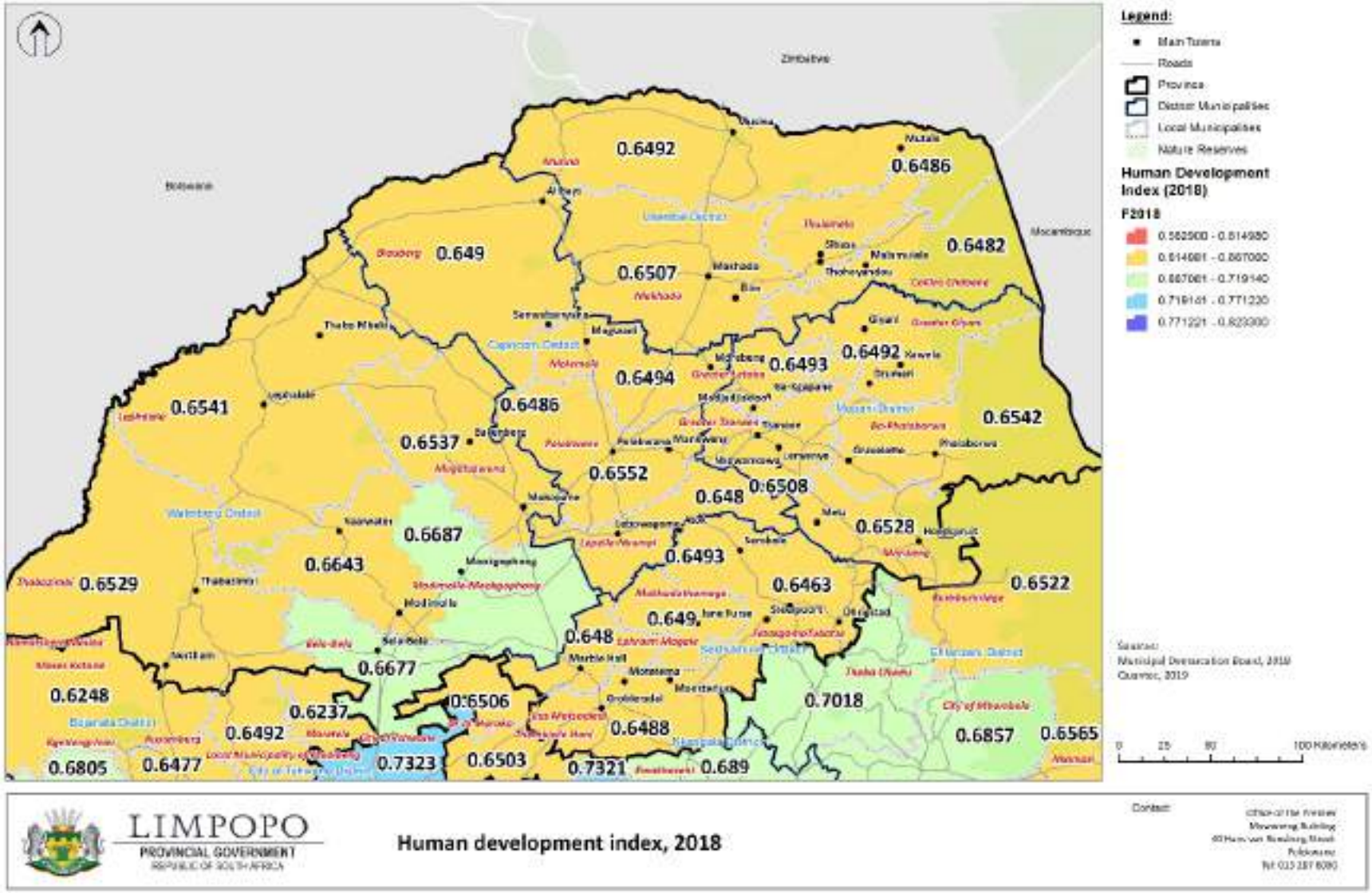


Figure 28: Limpopo: Human Development Index

Sources: Municipal Demarcation Board 2018; Quantec 2019

7 IMPACT OF CLIMATE CHANGE ON THE LIMPOPO PROVINCE

Climate change is projected to have a drastic impact in Southern Africa in the 21st century under low mitigation futures (Niang et al., 2014). The low mitigation scenario is the most likely to play out over the short to medium term. African temperatures are projected to rise rapidly, at 1.5 to 2 times the global rate of temperature increase (Engelbrecht et al., 2015; James and Washington, 2013). Moreover, the Southern African region is projected to become generally drier under enhanced anthropogenic forcing (Christensen et al., 2007; Engelbrecht et al., 2009; James and Washington, 2013; Maure et al., 2018; Niang et al., 2014).

These changes in the annual and seasonal rainfall patterns will plausibly have a range of impact in South Africa, including impact on energy demand (in terms of achieving human comfort in buildings and factories), agriculture (e.g. reductions of yield in the maize crop under higher temperatures and reduced soil moisture), livestock production (e.g. higher cattle mortality as a result of oppressive temperatures) and water security (through reduced rainfall and enhanced evapotranspiration) (Engelbrecht et al., 2015; Maure et al., 2018).

In the case of the Limpopo Province, climate change impact is more likely to be felt not only in terms of changes in average temperatures and rainfall patterns, but also through changes in extreme events, for example tropical landfall and cut-off low flooding are likely to be less frequent in Limpopo due to the displacement of the westerly wind regime (Engelbrecht et al., 2013; Muthige 2018). In addition, tropical cyclones are projected to be more intense, resulting in more destructive flooding events in parts of Limpopo (Malherbe et al., 2013; Muthige et al., 2018). Moreover, more frequent dry spells, very hot days, drought events, and high fire-danger days are projected to occur in Limpopo (Maure et al., 2018).

All provinces in the country would be affected by climate change. In short, Limpopo will, in all likelihood, become hotter and drier, with more extreme rainfall events in the summer. Agriculture and food production are perhaps the sectors that are most vulnerable to climate risk. The prospect of achieving Sustainable Development Goal No. 2, and ensuring food security in South Africa, is increasingly challenged by the adverse effects of climate change and variability on agriculture (Nilsson et al., 2016), the decreasing involvement of the youthful population in agriculture (Gandure et al., 2013) and the increasing cost of agricultural inputs (Ncube et al., 2018). Additional adverse external factors include livestock mortality and decreasing water security.

It is estimated that a growing number of people in South African cities and towns will be exposed to the impact of weather-induced natural hazards, such as flooding, heatwaves, droughts, coastal flooding, wildfires and storms, which threaten livelihoods, increase vulnerability and undermine hard-earned development gains *(CSIR. 2019.* Green Book: Adapting South African settlements to climate change. *Available at: www.greenbook.co.za)* (referred to henceforth as the CSIR Green Book).

The CSIR Green Book project was designed to look at the components that increase risk and provide scientific evidence and information that can be used by local government and other role-players to better understand local risks and vulnerabilities, and to respond to these challenges through climate change adaptation actions. The CSIR Green Book seeks to facilitate the integration of climate change adaptation into local government planning instruments and processes in support of the development of climate-resilient cities and settlements.

The following spatial items are drawn from the risk calculations developed for South Africa. All items are representative of the projected 2050 climate change, relative to the present, under an RCP 8.5 (50th percentile) scenario. RCP 8.5 represents a “business as usual” scenario, a “high emissions” scenario, or a “worst-case” scenario. The following items (maps) are reflected for the Limpopo Province:

- Change in extreme rainfall days by 2050 (number of days)
- Change in annual rainfall by 2050 (mm)
- Change in very hot days by 2050 (number of days)
- Change in maximum temperature by 2050 (°C)
- Flood risk index

Although there is an overall increase in extreme rainfall days in the Province, there are three areas with more significant predicted increases, namely the Southern Waterberg, Sekhukhune and Thohoyandou regions. Increases in extreme rainfall days may be associated with increases in localised flooding events (refer to Figure 29). This will affect infrastructure provision such as drainage systems. It could also affect agricultural practice and infrastructure such as the use of netting.

It is predicted that annual rainfall is to increase by up to 100mm by 2050 in the central, northern and south-western parts of the Province (refer to Figure 30). Considering that temperatures are also predicted to increase, increased rainfall could assist, considering a likely need to increase irrigation. Other measures such as new cultivars capable to deal with higher temperature conditions, should be explored.



Figure 29: Limpopo: change in extreme rainfall days by 2050

Source: CSIR Green Book 2019

Due to the nature of climate modelling, this aspect needs to be revisited periodically considering more up-to-date information or adjustment to climate models.

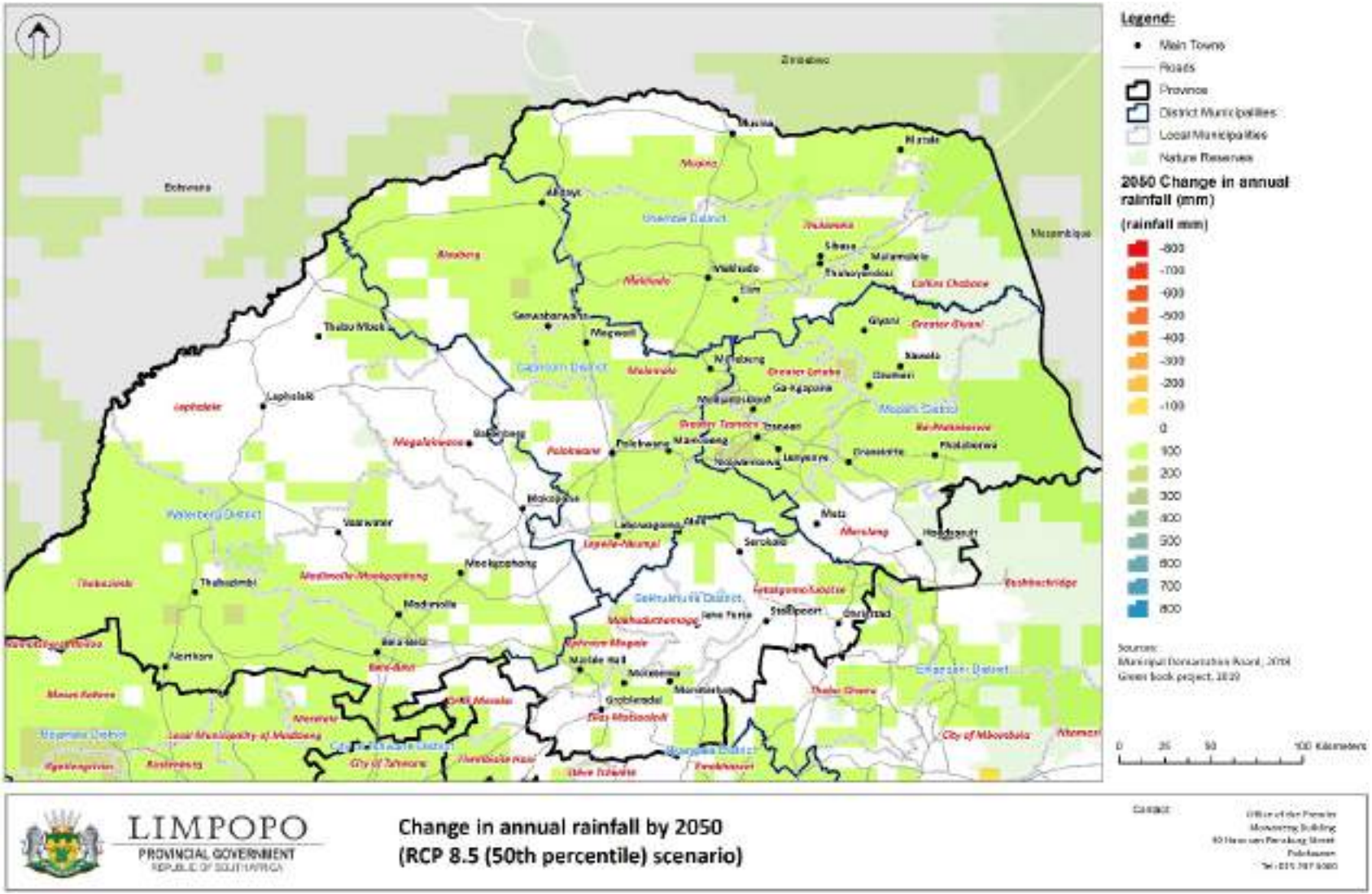


Figure 30: Limpopo: change in annual rainfall by 2050

Source: CSIR Green Book 2019

Due to the nature of climate modelling, this aspect needs to be revisited periodically considering more up-to-date information or adjustment to climate models.

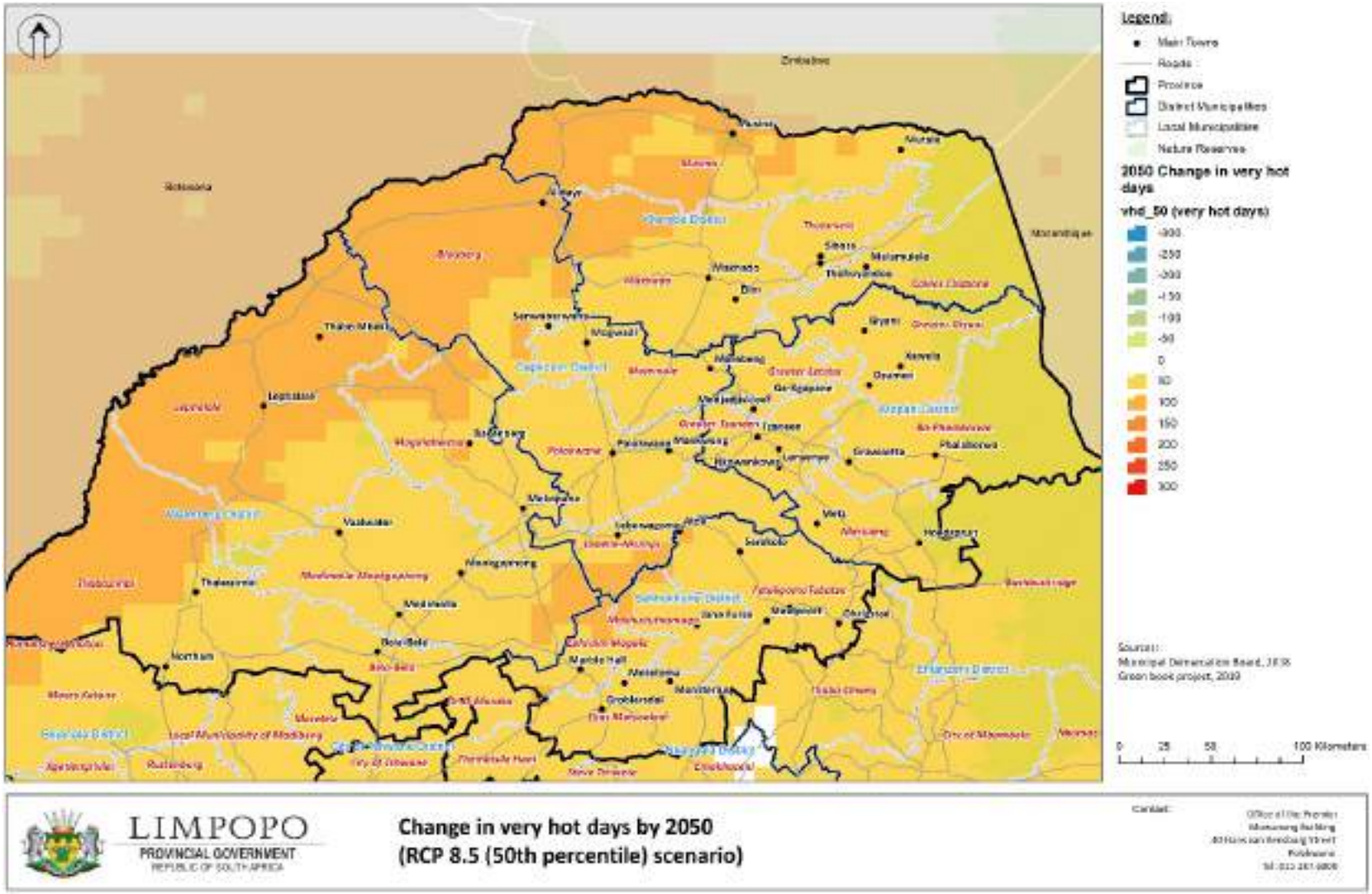


Figure 31: Limpopo: change in very hot days by 2050

Source: CSIR Green Book 2019

Due to the nature of climate modelling, this aspect needs to be revisited periodically considering more up-to-date information or adjustment to climate models.

The number of very hot days is predicted to increase in most of the Province, with the higher increased >50 days predicted for the western parts of the Province (refer Figure 31). These are also primarily game farming areas. Increases in very hot days could affect agriculture, and plant and animal life, and place more pressure on scarce water sources.

Figure 32 indicates that maximum temperature change will affect the whole Province. Climate modelling predicts that most of the Waterberg District will experience an increase of approximately 3.5°C in annual maximum temperatures. Central parts of the Province will increase by approximately 2.5°C. This could affect the extent and type of agriculture that is practised in this region. Similarly, higher temperatures could affect settlements, including an increase in heat stress and a reduction in resources such as water.

Like many other countries, South Africa has a history of floods, ranging from minor, local events, through to national disasters with widespread flooding generated by extreme events such as cut-off lows and cyclones. Flood risk can be disaggregated into two main components, namely flood hazard and flood vulnerability. Flood hazard focuses on the nature of the flood events and includes the likelihood and the severity of flood events. Flood vulnerability focuses on the effects of flood events on people, their livelihoods and infrastructure. The flood hazard index focuses on floods generated by surface water (fluvial or river-related floods). The Flood Hazard Index (FHI), which is based on the catchment characteristics and design rainfall, was averaged at the quinary catchment level, and the classes were defined using the standard deviations as the distribution of the FHI values followed a normal distribution. This FHI is an initial assessment aimed at providing an overview of the relative flood hazards and risks for a wide range of settlements across the country. It needs to be supplemented with a more detailed local authority and settlement-level assessment of the hazards and risk, incorporating local knowledge and consultation with affected communities.

A medium, to very high, flood hazard was identified at several areas in the Province (refer Figure 33). The Province should initiate and conduct such assessments in a participatory and consultative fashion, particularly where settlements (including traditional settlements) are exposed to flood risks. The most effective means of reducing the flood risk, is to recognise the fact that floods occur, that their severity is likely to increase, and that being adequately prepared is the best protective measure that can be taken. In some cases, settlements and other infrastructure may have to be moved out of flood-prone areas because prevention is better than attempting to repair the damage every time. Of concern, are the traditional settlement areas, where access roads are not always in good condition, and where flooding could result in worsening access routes that are critical to these communities.

Figure 34 indicates that, for two regions within the Province, a decrease in drought tendency can be expected (areas in blue), while in the central part of the Province, it is likely that the drought tendency will increase. This will impact both intensive agriculture as well as animal husbandry (including game farming). The Province needs to ensure that its development programmes, such as establishing emerging farmers, also incorporate the risk of drought (as supportive programmes are often not long term).

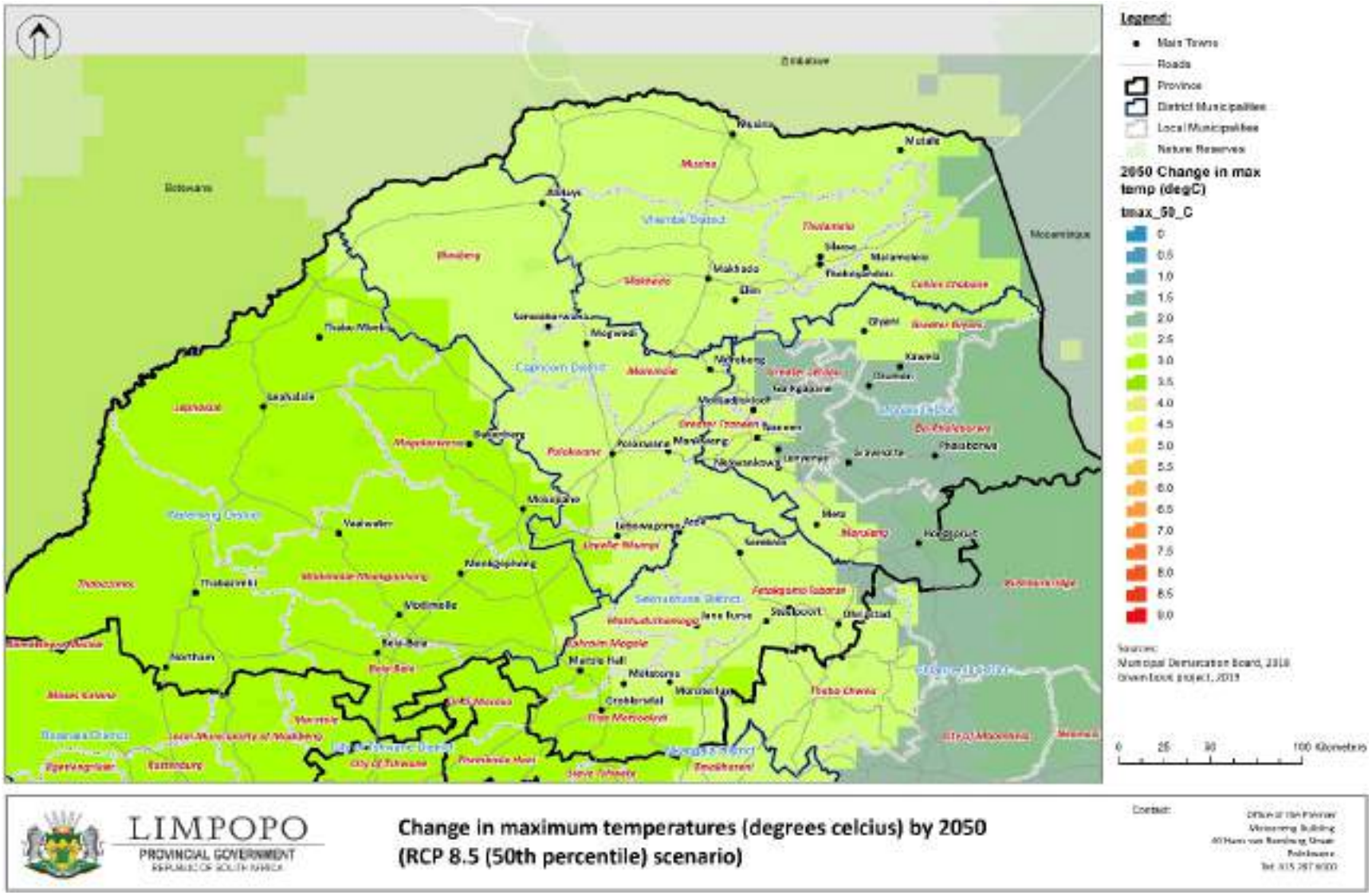


Figure 32: Limpopo: change in maximum temperatures by 2050

Source: CSIR Green Book 2019

Due to the nature of climate modelling, this aspect needs to be revisited periodically considering more up-to-date information or adjustment to climate models.

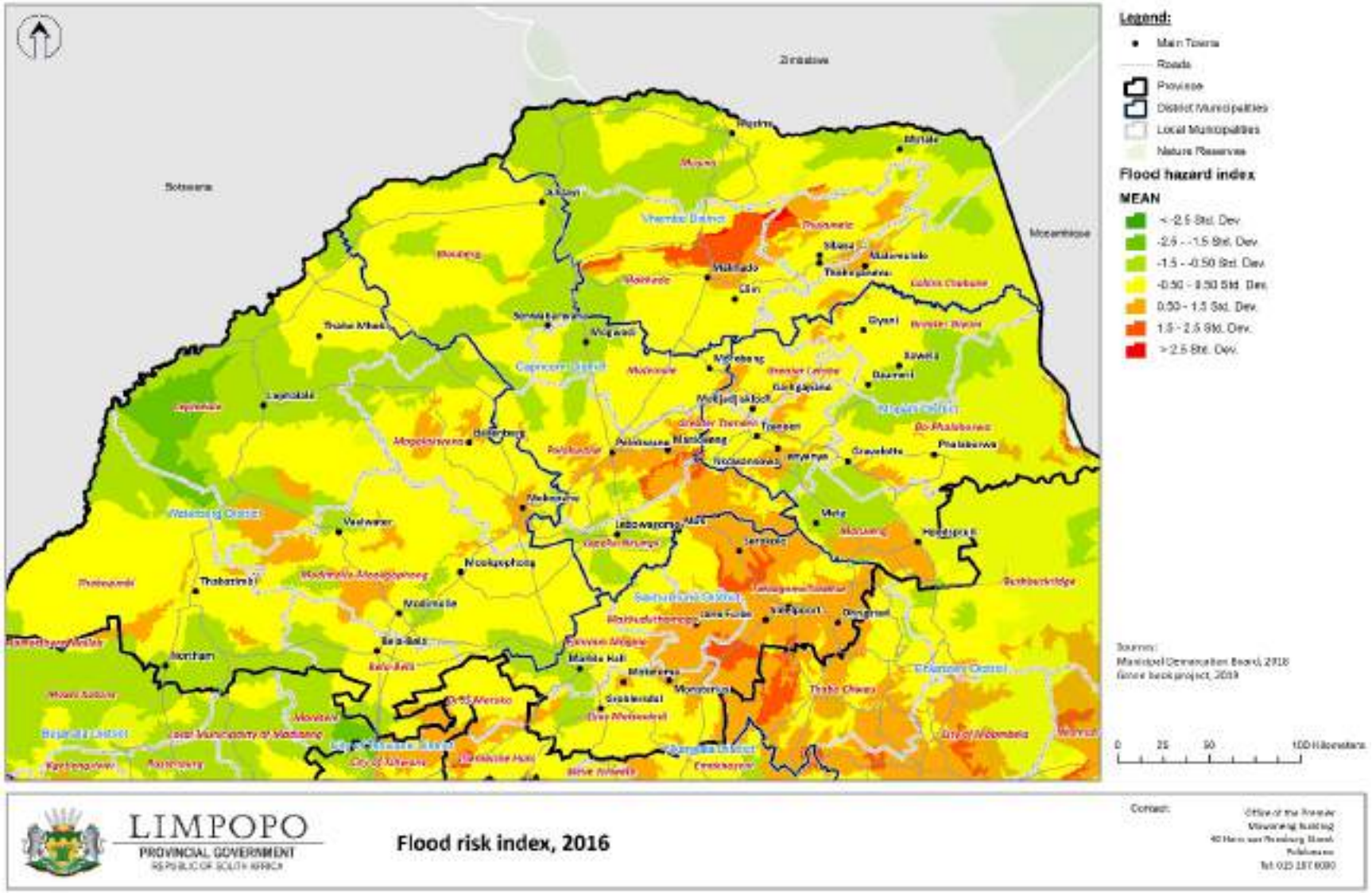


Figure 33: Limpopo: flood risk index 2016

Source: CSIR Green Book 2019

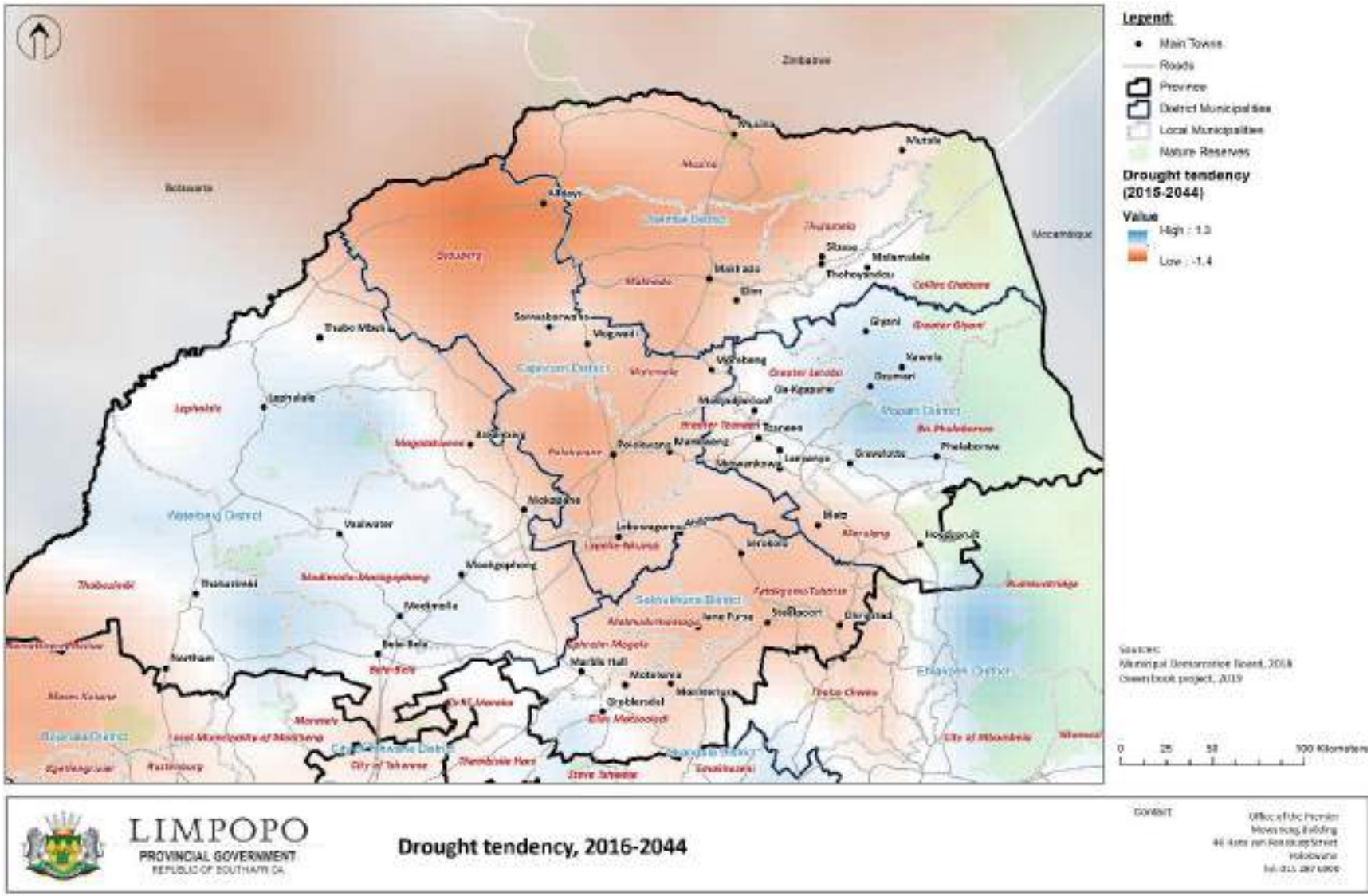


Figure 34: Limpopo: drought tendency 2015-2044

Source: CSIR Green Book 2019

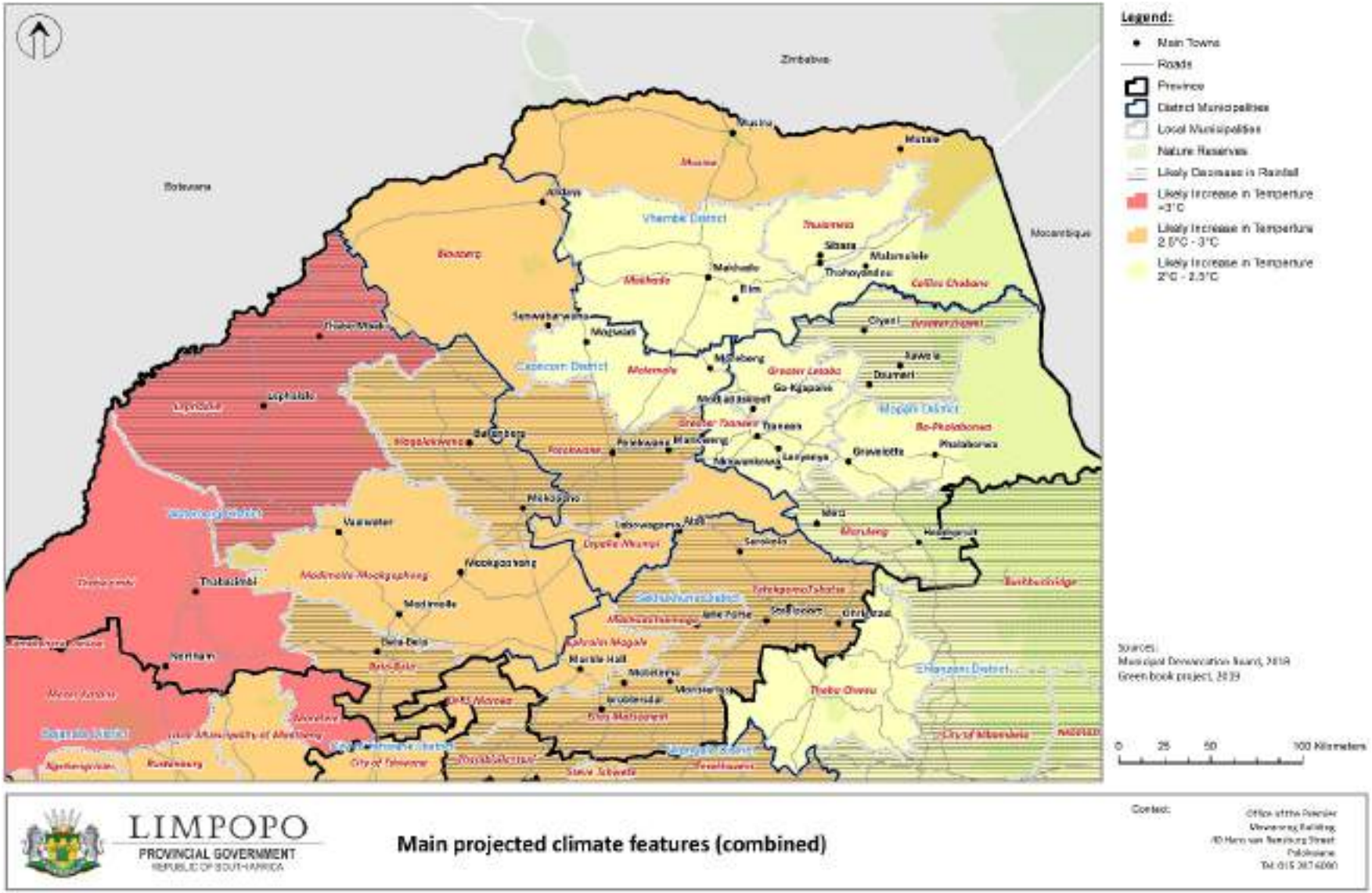


Figure 35: Limpopo: primary projected climate features

Source: CSIR Green Book 2019

In summary, Figure 35 reflects combined rainfall and climate information. The highest temperature increases of >3°C are predicted to occur in the western parts of the Province, with the affected municipalities being Thabazimbi and Lephalale. The central and northern parts of the Province are likely to experience temperature increases between >2.5 to 3°C and include the municipalities of Musina, Blouberg, Polokwane, Mogalakwena, Modimolle-Mookgopong, Bela Bela, Lepelle-Nkumpi, and the Sekhukhune District.

The areas that will likely experience a decrease in rainfall, are primarily the central and western parts of the Province. There are a few municipalities that are projected to experience a high increase in temperature and lower rainfall. These municipalities are mostly affected by climate change, namely:

- Lephalale Municipality
- Mogalakwena Municipality
- Bela Bela Municipality
- Polokwane Municipality
- Makhuduthamaga Municipality
- FetakgomoTubatse Municipality
- Elias Motsoaledi Municipality

These climate changes will result in harsher conditions for agriculture and animal husbandry. Adaptation options should be investigated in the agricultural sector to accommodate this predicted change.

In conclusion, the Limpopo Province has been identified as the most vulnerable province in terms of climate change impact on agriculture, mainly due to the high percentage of small-scale farmers (DEA, 2015). As the 'agricultural engine' of South Africa, accounting for nearly 60% of all fruit, vegetables, maize, wheat and cotton production, in addition to livestock farming, strategies to adapt to the changing climate in this Province are crucial to the agricultural sector in terms of food security, contribution to exports, and as an economic multiplier for the people of Limpopo through income and employment. The strategies recommended are presented in paragraph 10.5 Priority 3: Transformation and modernisation of the provincial economy.

Since the majority of livelihoods in the Province are closely tied to agriculture, recommended options for agriculture are beneficial to livelihoods. In urban areas, increased temperatures in built areas can impact both settlements and livelihoods. Informal settlements and shacks in peri-urban areas are particularly vulnerable due to limited resources and the need for people to travel longer distances in the heat. Measures to adapt to increasing temperatures, which can be considered in urban areas of the Province, specifically in commercial and government buildings, include elements of green design and green roofs. However, there is currently limited documented evidence of these measures being implemented in the Province.

Adaptation options recommended for livelihoods and settlements in the Province include (LPG, 2016):

- Devote resources to identifying and providing training on alternate sources of livelihoods for different regions and communities
- Create and strengthen support business-development mechanisms for smallholder farmers
- Redouble efforts to improve overall socio-economic security and well-being
- Enhance efforts to reduce flood risk to rural and urban communities

8 CURRENT SECTORAL CONTEXT

8.1 Economy

8.1.1 Introduction

The last five years of the LDP can be characterised as a planning period, during which the provincial government developed industrialisation plans and programmes. The next five years (2020-2025) will see the implementation of both mega-industrialisation projects and sector plans. However, it is also acknowledged that most NDP targets have been missed, due to a lower-than-anticipated growth rate and an increase in the unemployment rate, especially among the youth, leading to deepening poverty.

Furthermore, the current economic outlook is underscored by the devastating implications of COVID-19, amongst others, seeing the country's economy descending into a technical recession during the fourth quarter of 2019, as well as a sovereign credit downgrade by three major credit rating agencies, and restricted fiscal conditions.

The vestiges of the 2008 global recession reverberated during the implementation of the LDP 2014-2019. This created a new normal of low economic growth in both developed and emerging economies such as South Africa. Weak global demand had a dampening effect on commodity prices, such as platinum and coal, which are the biggest export earners for the Limpopo Province.

Consistently, agriculture endured strain, caused by factors such as climate change, debilitating drought in almost all districts, a lack of appropriate agricultural infrastructure, a shortage of farming skills, high levels of soil degradation and tough economic conditions. In addition, the Province is not performing well in terms of value addition to primary products. All these detrimental factors saw agriculture making a negligible contribution towards the provincial GDP.

On the other hand, StatsSA figures show that tourism flourished in Limpopo during the period between 2015 and 2018. Effectively, the tourism sector in Limpopo held poll position country-wide in domestic travels, with approximately 22.2 million arrivals. In international arrivals, Limpopo sustained second position throughout the period under review and, by implication, the tourism sector created more jobs than utilities and mining combined.

Humble strides made in manufacturing, and the implementation of the Industrialisation Agenda, highlighted by efforts to develop the Musina-Makhado Corridor Special Economic Zone (SEZ), require a focused approach towards water and energy security, together with an improved transport network system.

The sections that follow provide a brief summary of the current state of, and opportunities in, the economy of the Limpopo Province.

8.1.2 Economic production

8.1.2.1 Total economic production and growth trends

Gross Domestic Product (GDP) is a production measure obtained through the sum of the gross values added of all resident institutional units, in their capacity as producers, plus the values of any taxes less subsidies, on production or imports not already included in the values of the outputs and values added by resident producers. In 2018, the Limpopo GDP totalled R359,885 million at current prices, contributing 7.4% to the total economy of South Africa.

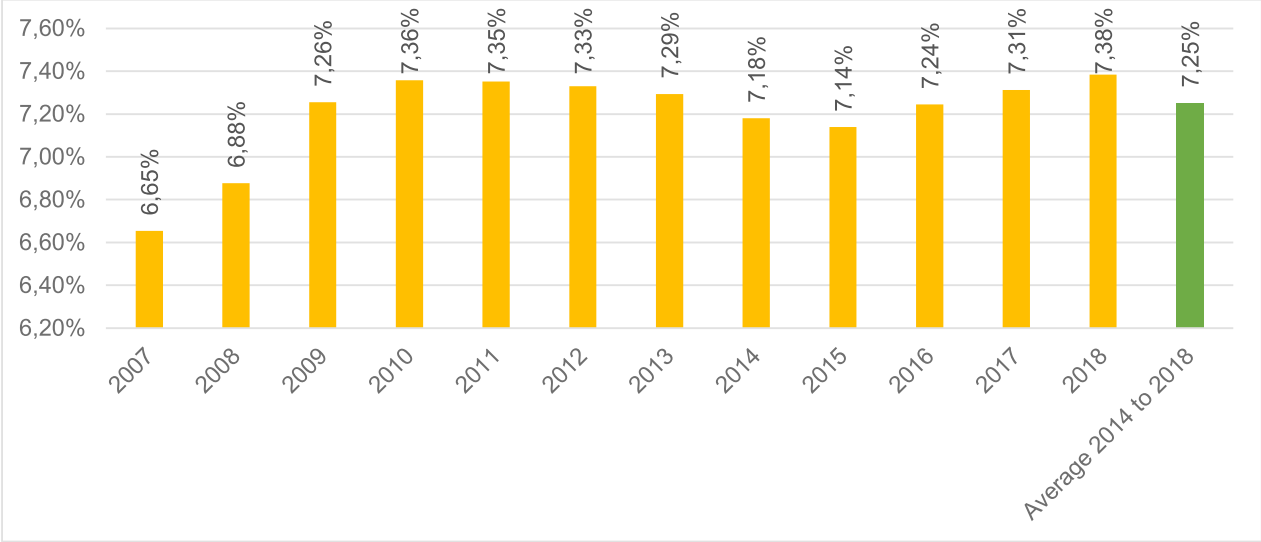


Figure 36: Limpopo Province's contribution to the National GDP per annum (current prices), 2007 - 2018

Source: StatsSA, 2019



Limpopo Province's contribution to the national economy has slowly increased over the years since 2014, from 7.2% to 7.4% in 2018. The Province had set a target to achieve a 9% contribution to the national economy by 2020. Given the annual average contribution rate of 0.02% to the national output, the Province has fallen short of achieving the set LDP target.

Over the last five years (2014/2015 to 2017/2018), the average provincial growth rate was 1.0%, ranging from 1.8% to 0.6%. The provincial economy's growth rate declined from 2.1% in 2016/2017, to 0.6% in 2017/2018, which can be attributed to a decline in primary industries (mining and agriculture), and which contributed immensely to the growth rate in 2017. Over this period, agriculture decreased by 1.7%, whilst mining decreased by 0.2%. The manufacturing sector, on the other hand, grew by a meagre 0.3%, dimming the hope of this sector being the engine of growth.

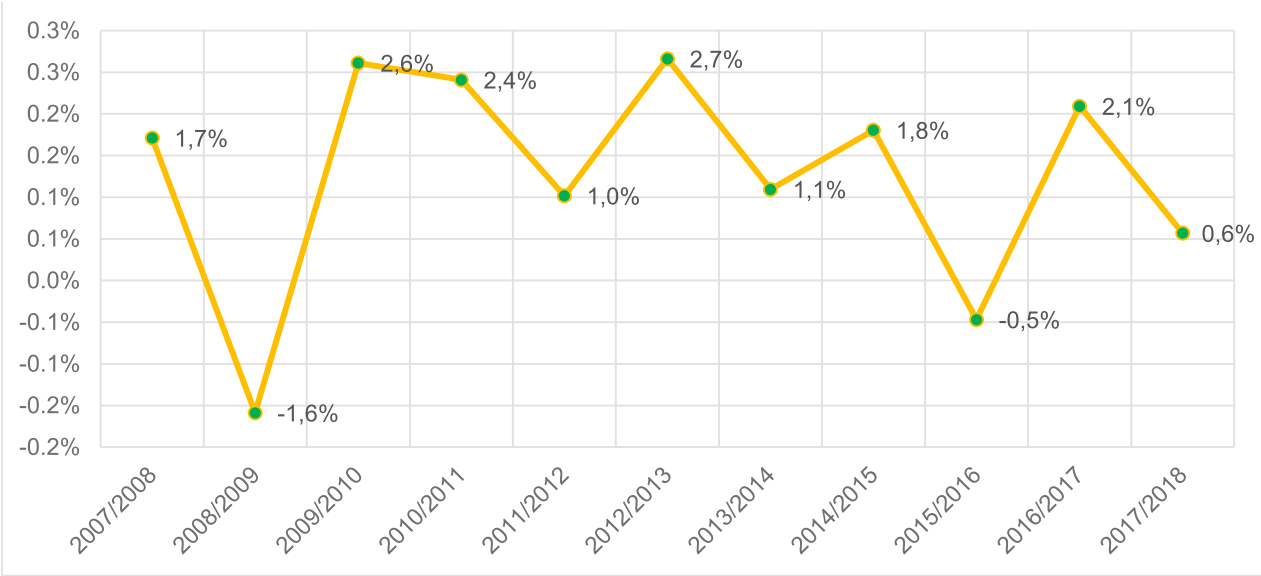


Figure 37: Limpopo growth rate (constant 2010 prices), 2007 - 2018

Source: StatsSA 2019

The Province's economic growth rate plunged from 1.7% in 2007/2008, to 0.6% in 2017/2018. The decline is mostly attributed to the agricultural and construction sectors. The provincial economy is still struggling to grow to its potential since the global financial crisis in 2008/09, which adversely affected the global economy. In the period 2007-2018, the provincial economy was growing at an average growth rate of 1.3%. The low economic growth rate is insufficient to sustain the growing population and the creation of much-needed jobs.

8.1.2.2 Industry/Sectoral economic contribution

The provincial economy remains dominated by the tertiary sector, contributing to almost 60% of the Province's total GDP in 2018. In terms of industries, mining (27.8%), general government services (19.9%), and trade, catering and accommodation (15.2%), were the highest contributors to the Province's economy. This is indicative of a concentrated economy which requires diversification and contribution from secondary sectors, particularly manufacturing and agro-processing. The manufacturing sector is a critical sector, with a higher multiplier effect and employment propensity. Its income elasticity makes it sustainable in the long run. This sector experienced a negative growth rate of 1.2% in 2015. However, it showed a slight improvement of 0.8% in 2016, and further declined to 0.3% in 2017 and 2018. It is envisaged that, when the mega-industrial projects such as the Special Economic Zones are fully implemented, the manufacturing capacity of the Province will improve, thus increasing its share of the total provincial output.

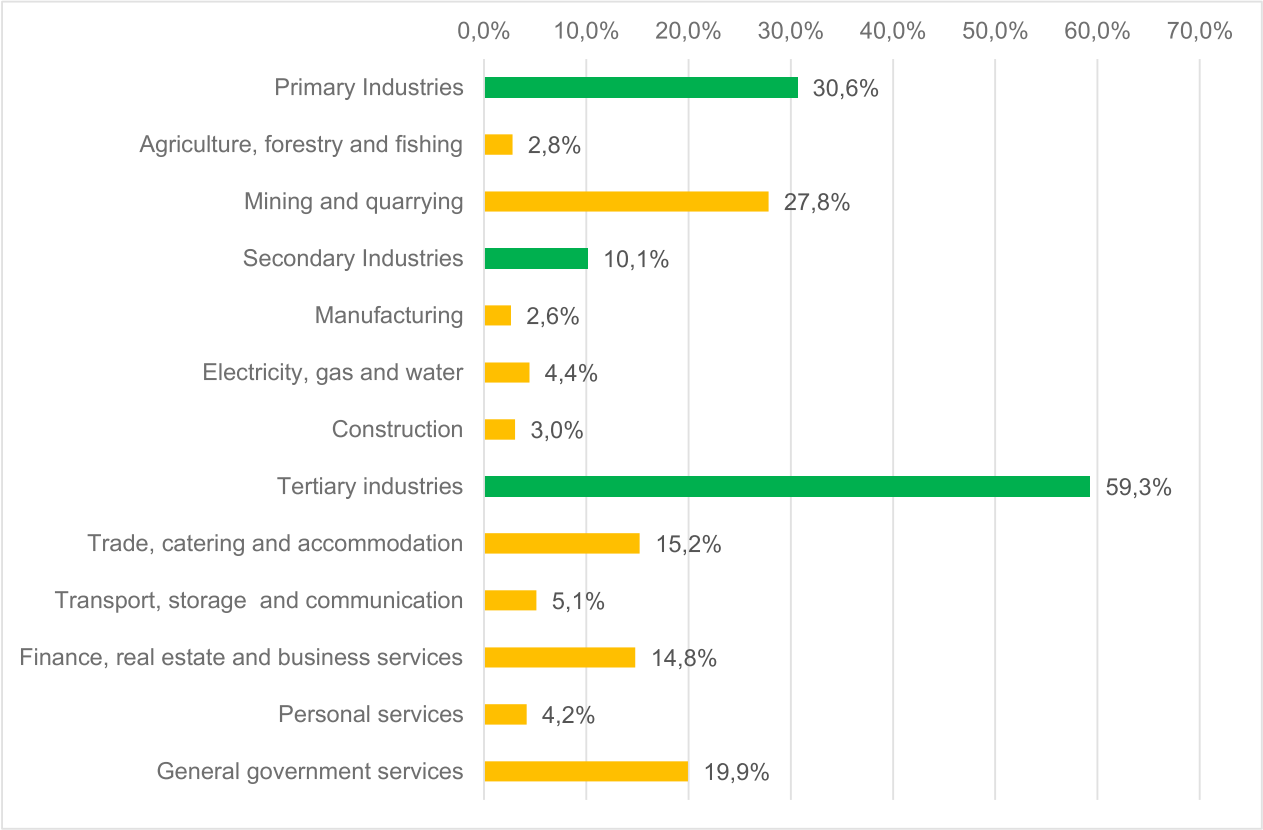


Figure 38: Industry contribution to Limpopo's total GDP (current prices), 2018
Source: StatsSA, 2019

It is evident that the mining sector is the most significant contributor towards the Province's economy. However, the performance of the mining and quarrying sector has been erratic since 2007, due to volatile commodity prices. Mining experienced a negative growth rate of 0.8 in 2014 due to the fall in demand for platinum, increase in production costs and low commodity prices. The situation has improved, as the sector grew from -0.8% in 2014, to 4.7% in 2015. However, in 2016, the sector recorded the second-biggest decline of -3.9%, but improved by 5.3% (the second-biggest increase after the agriculture sector) in 2017. The sharp increases are

mainly due to new entrants in the sector. The unrests in mining communities and mechanisation led to the drop to 0.2% in the year 2018.

8.1.2.3 Labour productivity

Labour productivity, or GDP per person employed, is an important economic indicator that is closely linked to economic growth, competitiveness and living standards. Labour productivity represents the total volume of output (measured in terms of GDP) produced per unit of labour (measured in terms of the number of employed persons) during a given time period. The indicator allows data users to assess GDP-to-labour input levels and growth rates over time, thus providing general information about the efficiency and quality of human capital in the production process for a given economic and social context.

Given its usefulness in conveying valuable information on a country's labour market situation, labour productivity growth was one of the indicators selected to measure progress towards the achievement of the Millennium Development Goals (MDGs), under Goal 1 (Eradicate poverty and hunger), and it is included as one of the indicators to measure progress towards the achievement of the Sustainable Development Goals (SDGs), under Goal 8 (Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all).

The economic growth in a country can be ascribed either to increased employment, or to more effective work by those who are employed. The latter effect can be described through statistics on labour productivity. Labour productivity is therefore a key measure of economic performance. The understanding of the driving forces behind it, in particular the accumulation of machinery and equipment, improvements in organisation, as well as physical and institutional infrastructure, improved health and skills of workers ("human capital") and the generation and adoption of new technologies, is important for formulating policies to support economic growth. Such policies may focus on regulations on industries and trade, institutional innovations, government investment programmes in infrastructure, as well as human capital and technology, or any combination of these.

Labour productivity estimates can support the formulation of labour market policies and monitor their effects. For example, high labour productivity is often associated with high levels of particular types of human capital, indicating priorities for specific education and training policies. Likewise, productivity trends can be used to understand the effects of wage settlements on rates of inflation, or to ensure that such settlements will compensate workers for productivity improvements. Finally, productivity measures can contribute to the understanding of how labour market performance affects living standards.

Limitations

- Estimates of employment correspond, as much as possible, to the average number of persons with one or more paid jobs during the year. In many countries, statistics on the number of self-employed and family workers in agricultural and informal manufacturing activities are less reliable than those for employees. As in the case of output estimates, the employment estimates are sensitive to under-reporting of informal or underground activities.
- Annual labour statistics that are available from StatsSA's Quarterly Labour Force Survey (QLFS) rounds the total number of individuals employed per sector off per thousand (the precise values are not available).

Table 11: Limpopo Province labour productivity, 2014 - 2018

Sector	2014	2015	2016	2017	2018
Agriculture, forestry and fishing	8,319	7,098	8,371	10,131	10,576
Mining and quarrying	159,827	151,730	179,760	200,252	212,355
Manufacturing	4,358	4,700	4,870	5,258	4,775
Electricity, gas and water	95,598	88,247	104,099	88,965	95,911
Construction	6,344	6,285	6,444	6,418	6,591
Trade, catering and accommodation	11,652	12,743	13,271	14,202	14,855
Transport, storage and communication	14,176	15,399	15,397	15,451	16,645
Finance, real estate and business services	16,464	16,922	17,858	18,420	19,086
Community and social services	12,519	12,933	13,906	14,611	15,432
Total	**16,118**	**16,396**	**17,823**	**18,833**	**19,508**

Source: StatsSA, Labour Market Dynamics in South Africa, 2018 (Report 02-11-02 (2018)), Gross Domestic Product (GDP), 4th Quarter 2019

From Table 11 it is evident that the mining sector, followed by the utilities sector (electricity, gas and water), are the most labour-productive sectors in the Province. Indications are that the overall labour productivity of the Province experienced a steady annual increase between 2014 and 2018.

8.1.3 Informal vs Formal economy

South Africa's informal sector accounted for approximately 18% (2.95 million jobs) of total employment in 2018, declining from 27% in 2000. The sector has not grown significantly over this period. In comparative terms, the size of South Africa's informal sector is less than half of that of the global developing country average, and less than one-third of the African average (ILO, 2018). Despite this, the informal sector is a critical part of the economy and has the potential to provide a space for those currently unemployed or unable to find work.

The informal sector is constantly changing, with significant movement in and out of employment, people working in a variety of jobs and sectors across the country, as well as high rates of establishment, and demise, of enterprises every year.

By sector, there has been a contraction in agriculture, and the most growth is observed in services, construction and transport. In 2018, wholesale and retail trade accounted for 38% of the informal sector, down from 44% in 2008 (UCT, Development Policy Unit, Feb 2019).

Wages in the sector remain lower than in the formal sector, but differ significantly for employers, employees and own-account workers. As in the formal sector, there is also substantial wage variation across industries in the informal sector. Approximately 80% of firms in the sector are one-person enterprises, but multi-person enterprises have been growing slowly at an average of 2.3% in the last ten years. Furthermore, over the last ten years, the informal sector has changed demographically as follows: more men, fewer young people and fewer people with very low levels of education. This shift is also borne out by an increase in people occupying more highly-skilled occupational categories in the sector (own-account workers) (UCT, Development Policy Unit, Feb 2019).

Some of the main characteristics linked to firms attaining employment growth and higher profits in the sector include: having access to finance, keeping accounts for the business, having been exposed to financial literacy education, access to suitable business location, the education of the firm owner, and having received advice on running the business (UCT, Development Policy Unit, Feb 2019).

Lack of finance, excessive competition and lack of adequate premises and equipment, are major challenges facing informal businesses (DSBD, 2019). Financial and non-financial support are critical to the health of informal enterprises, and existing support mechanisms should be made more accessible.

Important issues thwarting growth are legal and regulatory matters, including: treatment of informal traders in cities; licensing procedures, permits, and zoning laws (particularly in townships); lack of co-ordination across government departments and tiers dealing with the informal sector; and municipal and provincial legislative constraints due to the Business Act, Health and Safety regulations, building standards, and land use and management regulations (UCT, Development Policy Unit, Feb 2019).

Existing policy does not always make use of existing data sources to usefully inform its strategies, and there is no strict definition of the informal sector. Furthermore, the variation in size and growth across different industries, provinces, and demographic groups points to a need for more industry and geographically specific analyses, policies and initiatives. Particular sectors can be identified as key drivers of growth. This can facilitate an approach where policies are supported by data on specific trends observed in, and features associated with, these sectors, and these are then taken into account in the formulation of sector-specific interventions (UCT, Development Policy Unit, Feb 2019).

Important learnings can be derived by identifying promising developments within the sector and how different interventions have impacted growth and created opportunities – e.g. utilising a case study approach.

The historical lack of direct focus on the informal sector, both from a policy and a research perspective, has recently begun to change. National, provincial and local policy instruments, such as direct government support of a financial and non-financial nature, as well as of regulatory and legislative reforms, can be applied to create a more supportive environment for those in the sector, and to promote expansion. For example, the National Informal Business Upliftment Strategy (NIBUS) presents a more coherent approach to enable and support the informal sector across the three tiers of government. The challenges here appear to be take-up and implementation, rather than a lack of research and planning, as evidenced in the underspending on NIBUS in 2016/17. Additionally, NIBUS should provide opportunities for working with non-state and non-stakeholder intermediary organisations with greater access for the targeted beneficiaries at the local level (UCT, Development Policy Unit, Feb 2019).

Recommendations from the Department of Small Business Development's (DSBD) annual review 2018/19, aimed at the informal sector, include:

- Smart formalisation is recommended to encourage informal businesses to formalise
- Review and development of generic by-laws for municipalities to create a conducive business environment for SMMEs and informal traders (DSBD, 2019)

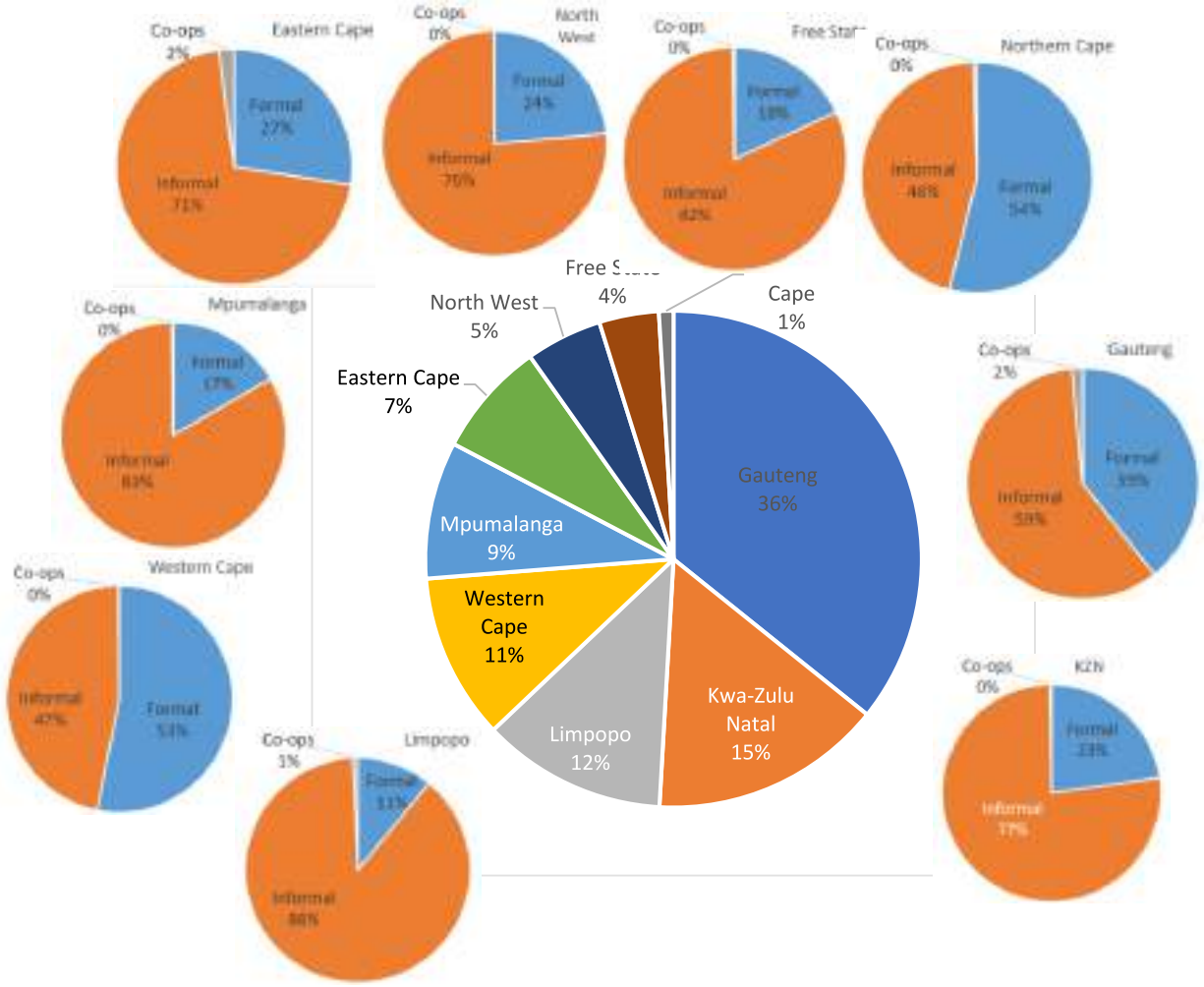


Figure 39: South African SMME distribution
Source: DSBD, 2019

Figure 39 presents South Africa's uneven geographical distribution of SMMEs among the nine provinces, with further decomposition in terms of formal, informal and co-operatives (DSBD, 2019). Commercial hubs like Gauteng naturally attract a higher frequency of business activity relative to the population, and stands at more than a third of the country's total. It is followed by KwaZulu-Natal, Limpopo and the Western Cape, which together account for a comparable percentage. In the Limpopo Province, the informal SMMEs account for 88% of the total SMMEs.

In 2019, the industry distribution of SMMEs in most provinces was somewhat similar, with the trade and accommodation sector being the largest throughout. Whereas this sector constitutes 41% of SMMEs in the country, it is smaller in the Western Cape and the Northern Cape (33% and 29% respectively). These two provinces have unique features: the Northern Cape is more involved in agriculture and the Western Cape in financial, business and community services. Gauteng has a large business sector. There was an increase of 96,000 SMME's in Western Cape from the preceding year, mainly in trade and accommodation, business and community services, although manufacturing and construction exhibited similar growth rates (SEDA, 2019).

8.1.4 Labour Market

8.1.4.1 Total labour force and growth trends

Unemployment in Limpopo has risen from 18% in 2013, to 18.7% in 2018, and 23.1% in 2020's first quarter (Q1). Although there has been an increase in the number of jobs created over the 5-year period in review, the jobs created were not sufficient to cover the number of people who are entering the labour force and those actively looking for employment. The expanded unemployment rate is above 36%, however, and is highest amongst the youth, at above 50% of the total number of unemployed people. The workforce has expanded from 1,375,000 in 2013, to 1,793,000 in 2018 according to the Quarterly Labour Force Survey (QLFS).

Table 12: South African labour force characteristics

Description	QLFS 2013	QLFS 2014	QLFS 2015	QLFS 2016	QLFS 2017	QLFS 2018
	'000	'000	'000	'000	'000	'000
Population 15-64 years	3,442	3,505	3,566	3,627	3,684	3,737
Labour force	1,375	1,435	1,602	1,701	1,761	1,793
Employed	1,128	1,198	1,291	1,360	1,404	1,458
Unemployed	247	237	311	341	357	335
Not economically active	2,067	2,070	1,964	1,926	1,923	1,944
Discouraged work-seekers	397	396	404	362	367	452
Other	1,670	1,674	1,560	1,564	1,556	1,492
Employment by sector						
Formal sector (non-agricultural)	592	658	681	751	751	762
Informal sector (non-agricultural)	320	327	359	363	395	429
Agriculture	114	106	135	129	139	143
Private households	101	107	116	118	118	123
Rates (%)						
Unemployment rate	18.0%	16.5%	19.4%	20.0%	20.3%	18.7%
Employed/ population ratio (Absorption)	32.8%	34.2%	36.2%	37.5%	38.1%	39.0%
Labour force participation rate	39.9%	40.9%	44.9%	46.9%	47.8%	48.0%

Source: StatsSA, Labour Market Dynamics in South Africa, 2018 (Report 02-11-02 (2018))

8.1.4.2 Industry/Sector employment contribution

Table 13 depicts employment per industry for the period 2013 to 2018.

Table 13: South African employment per industry ('000)

Industry	QLFS 2013	QLFS 2014	QLFS 2015	QLFS 2016	QLFS 2017	QLFS 2018
Agriculture	114	106	135	129	139	143
Mining	71	70	77	87	103	91
Manufacturing	76	85	72	76	91	85
Utilities	14	10	13	18	15	11
Construction	110	113	144	161	148	151
Trade	261	299	280	297	307	338
Transport	40	47	56	49	52	54
Finance	61	61	98	106	116	125
Community and social services	279	300	299	320	315	335
Private households	101	107	116	118	118	123

Source: StatsSA, Labour Market Dynamics in South Africa, 2018 (Report 02-11-02 (2018))

Figure 40 confirms that community and social services, trade, construction and agriculture are the biggest employers in the Province. Considering the sector performance, especially during the COVID-19 lockdown, and the expected slow recovery of certain sectors, the risk of employment in the trade, catering and accommodation, transport and construction sectors, is highlighted. Furthermore, the constraints of the fiscus also placed employment in the community and social services, and the construction sector in particular, at risk.

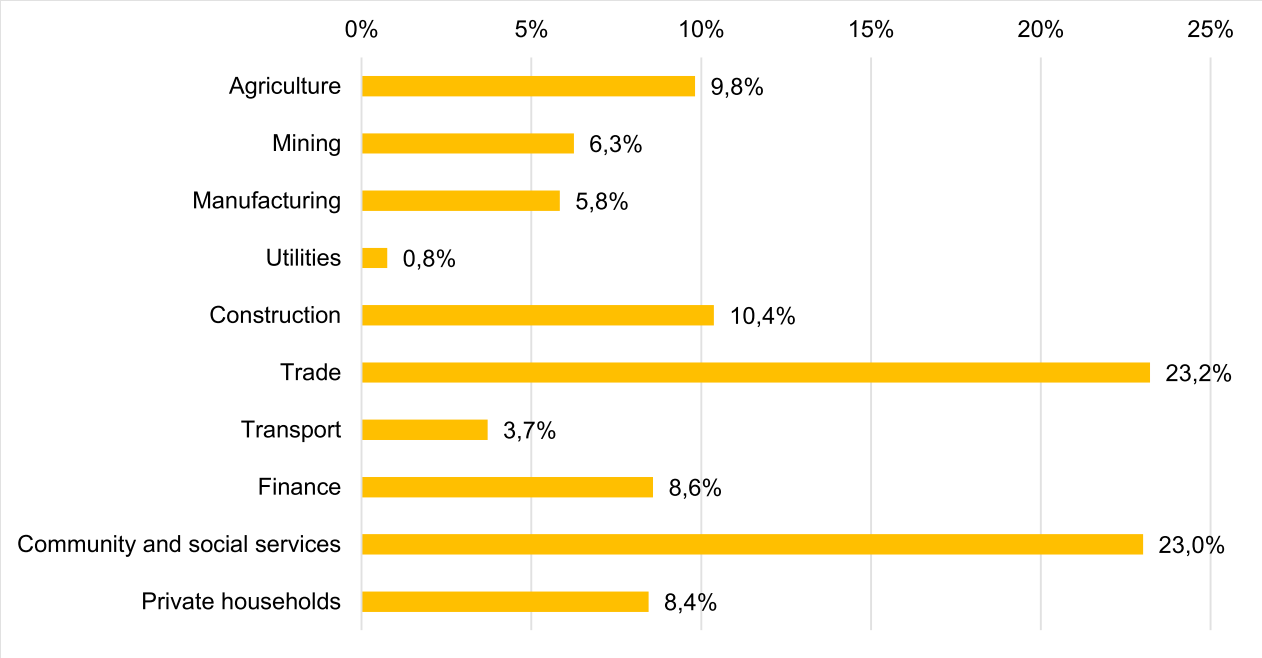


Figure 40: South African employment per sector, 2018

Source: StatsSA, Labour Market Dynamics in South Africa, 2018 (Report 02-11-02 (2018))

8.1.5 Economic comparative advantage and diversification

8.1.5.1 Location quotient

The comparative advantage of a region indicates relatively more competitive production function for a product or service in that specific economy, than in the aggregate economy. This economy therefore produces the product, or renders the service, more efficiently. An indication of the comparative advantage of an economy is its location quotient (LQ). The LQ is a calculated ratio between two economies, in this case the Limpopo Province and South Africa. This ratio is calculated for all sectors, to determine whether the provincial economy has a greater share or advantage of that sector, based on production (GDP) and employment. A sector with a LQ larger than 1 indicates a comparative advantage. However, the sectors with values higher than 1 should not be regarded as the only sectors worth developing, as latent potential in other sectors is not addressed by this technique. Table 14 depicts the provincial LQ based on production (GDP) and employment. It is evident that the Limpopo Province has a significant comparative advantage in the mining sector and to a lesser extent in the agricultural, trade, catering and accommodation and community and social services sectors.

Table 14: Limpopo: provincial location quotient

Sector	LQ GDP	LQ Employment
Agriculture, forestry and fishing	1.1	1.9
Mining and quarrying	3.4	2.4
Manufacturing	0.2	0.5
Electricity, gas and water	1.2	0.8
Construction	0.8	1.2

Sector	LQ GDP	LQ Employment
Trade, catering and accommodation	1.0	1.2
Transport, storage and communication	0.5	0.6
Finance, real estate and business services	0.8	0.6
Community and social services	1.0	1.0

Source: StatsSA, 2019

8.1.5.2 TRESS index

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 TRESS index. A TRESS index of 0 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 and commodity price fluctuations. The diversity of the manufacturing sector, however, prevents an increase in the vulnerability. Figure 41 depicts the provincial TRESS index from 2014 to 2018. It is evident that the Limpopo Province's TRESS index is slightly below 50, indicating that the Province is not very diversified, as reflected in Figure 38, and discussed in paragraph 8.1.2.2.

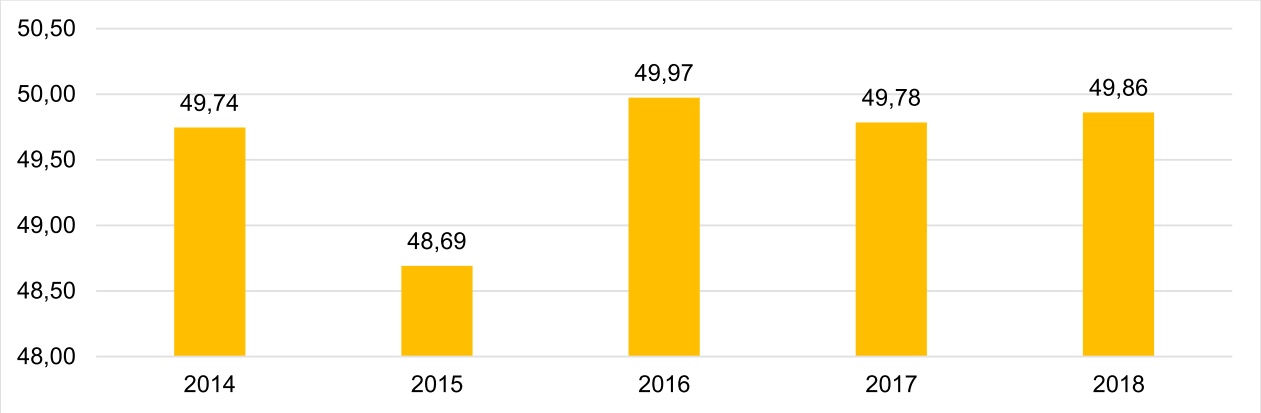


Figure 41: Limpopo: provincial TRESS Index, 2014 to 2018
Source: StatsSA, 2019

Figure 42 reflects the TRESS values for the Limpopo Province, comparing 22 economic (sub-SIC2 level) sectors.

Several municipalities reflect concentrated economies, including Thabazimbi, FetakgomoTubatse and Ba-Phalaborwa, which could be attributable to the dominance of resource-based activities such as mining. These areas are more dependent on one or two economic sectors.

Rural settlement areas do not contain a range of productive economic sectors and are often reliant on a strong government sector, combined with a grants economy.

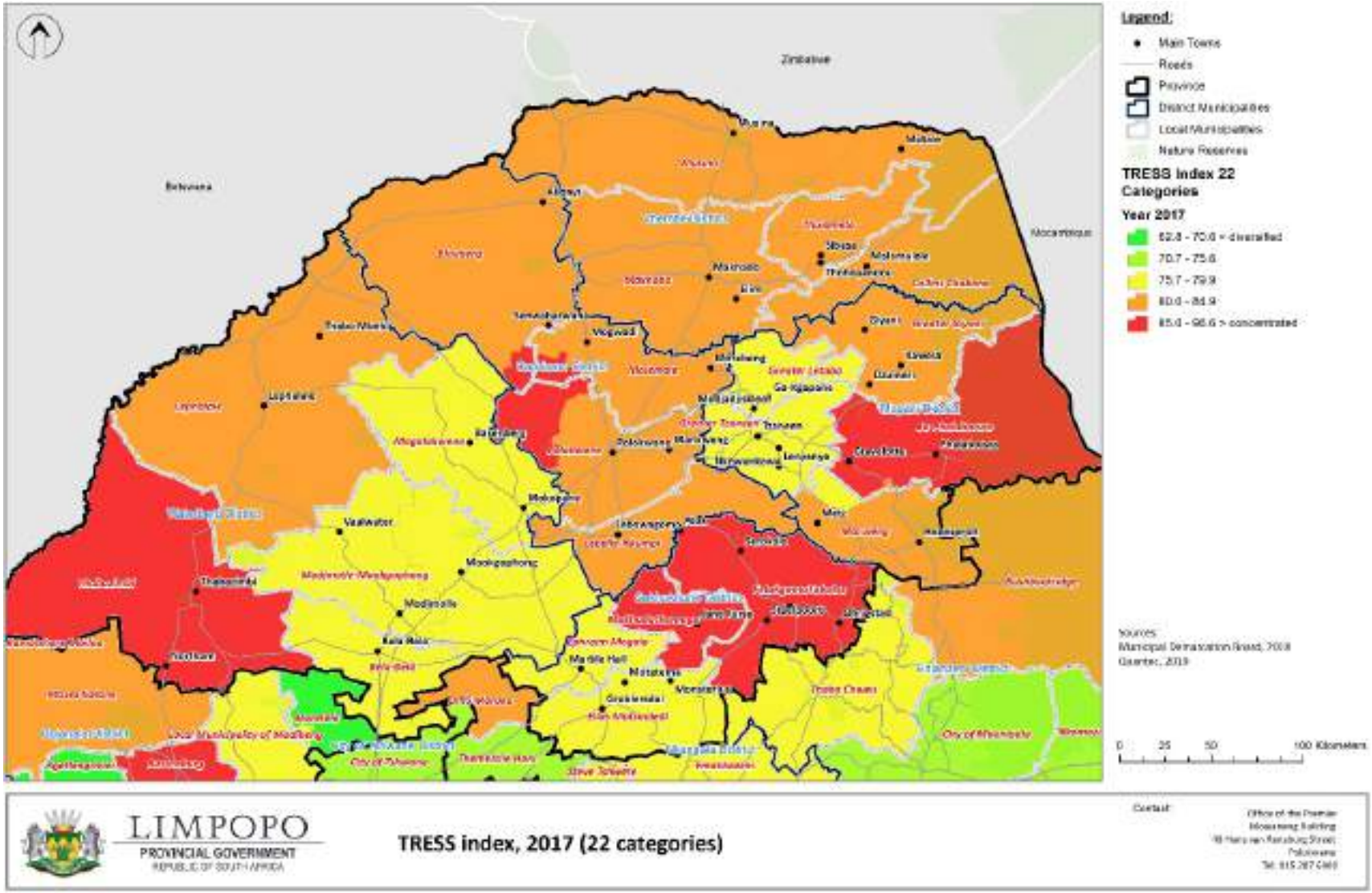


Figure 42: Limpopo TRESS index, 2017

Sources: Municipal Demarcation Board 2018; Quantec 2019

8.1.6 Agriculture

In 2018, the Limpopo Province's agricultural sectors' GDP totalled R8,936 million at current prices, contributing 2.8% to the total provincial economy. At a provincial level, Limpopo contributed 8.4% to the national agricultural sectors' GDP in 2018, lagging behind KwaZulu-Natal and the Western Cape, that respectively contributed 24.8% and 22% to the national agricultural sectors' GDP in 2018. As seen in Figure 43, the contribution of the provincial agricultural sector to the national agricultural sector, showed a steady increase between 2014 and 2018, with an average overall contribution of 7.64% between 2014 and 2018. The annual sector contribution reached a 10-year high in 2018, with an annual contribution of 8.43% to the national agricultural sector.

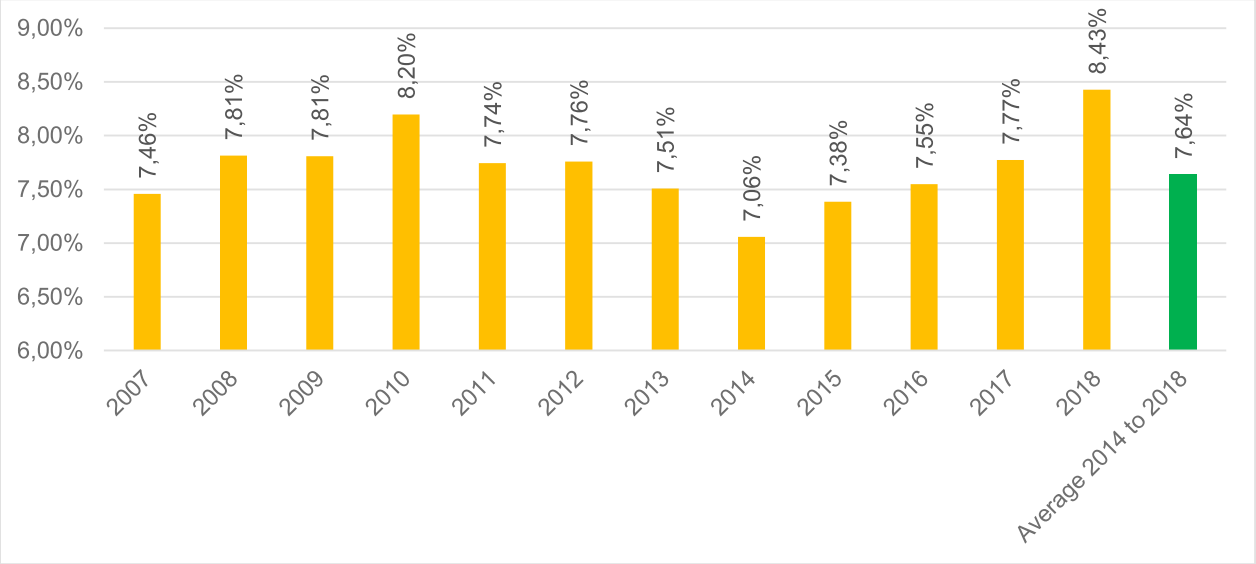


Figure 43: Limpopo's contribution to the national agricultural sector per annum (current prices), 2007 - 2018

Source: StatsSA, 2019

The contribution of the agricultural sector to the total GDP of the Limpopo Province declined steadily between 2008 and 2014 (refer to Figure 44), after which it showed a gradual increase. The sectoral contribution increased from 2.39% in 2014, to 2.79% in 2018, and the average annual contribution of the agricultural sector to Limpopo's total GDP was 2.6% between 2014 and 2018.

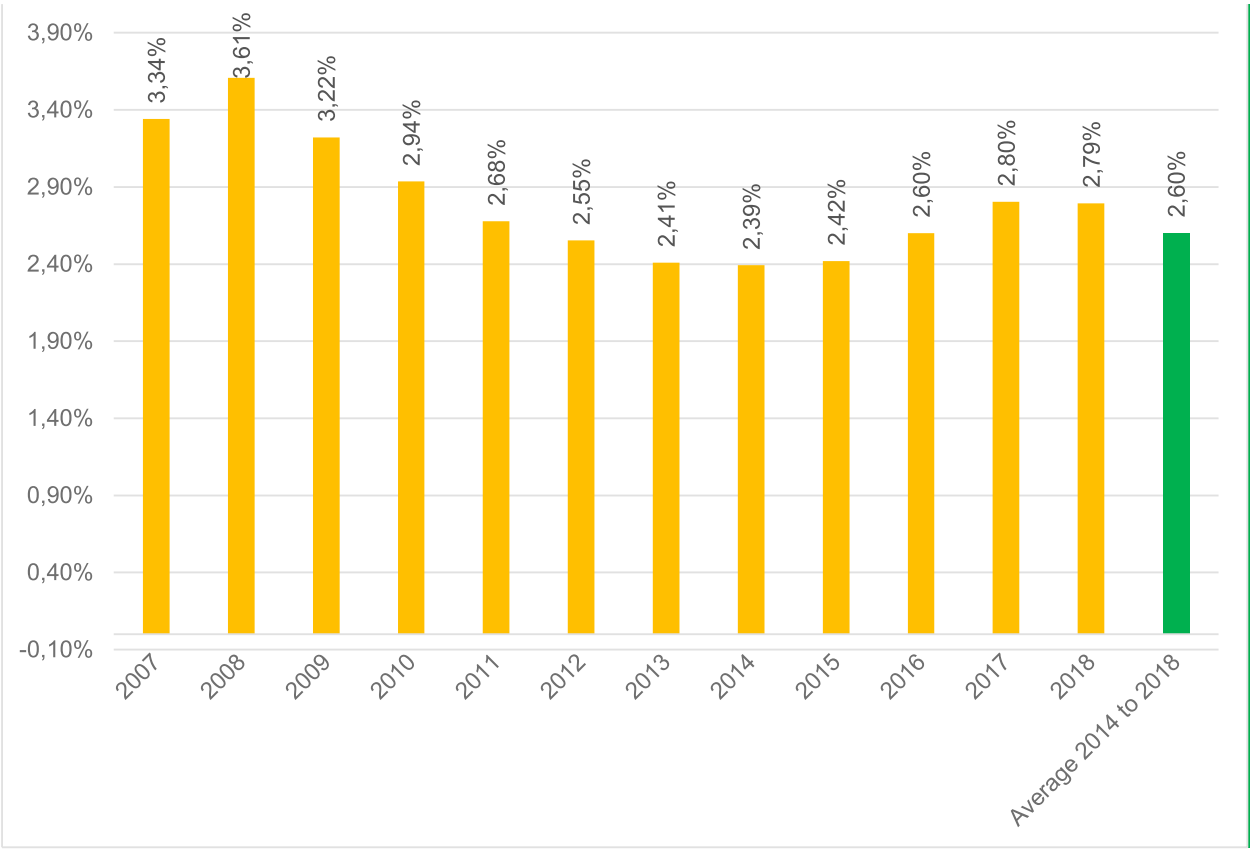


Figure 44: Agricultural sector contribution to Limpopo's total GDP (current prices) per annum, 2007- 2018

Source: StatsSA, 2019

The annual growth rate of the agricultural sector in Limpopo declined from 6.5% in 2013/2014, to -8.2% in 2015/2016, after which it grew very rapidly to 20.3% in 2016/2017. The sector showed a very sharp decline between 2016/2017 and 2017/2018, when the sector's annual growth rate dipped to -1.7% in 2017/2018. According to the Quarterly Labour Force Survey (QLFS) 2018, the agricultural sector employed 9.8% (approximately 143,000 individuals) of the provincial labour force in 2018, which is consistent with the average annual employment rate for the industry between 2013 and 2018.

The agricultural sector is a key contributor to the South African economy (IPAP, 2016). This sector is complex and diverse, consisting of multiple value chains that span rural, urban and industrial areas, and is impacted by a range of factors. The projected adverse impact of climate change on the agricultural sector in Limpopo are discussed in Section 7. Other factors include a decline in the availability of arable land, significant inefficiencies in primary production, rapid urbanisation and population growth, and high water requirements, together with unpredictable weather conditions, drought and water scarcity.

The Limpopo Province is an agricultural production hub for high-value agricultural commodities. The agricultural sector therefore also has the potential to play a vital role in, for example, expanding the manufacturing sector through its forward and backward linkages within the value chain. The potential for agro-processing has been identified as part of the LDP 2014-2019. However, agro-processing remains at a low level in the Province. The Musina-Makhado SEZ is planned to provide agro-processing opportunities.

The agricultural sector contributes approximately 2.3% of the GDP of the Limpopo Province. A variety of agricultural commodities are produced in the Province, including sub-tropical fruits and citrus, nuts (e.g. macadamia), vegetables and grains.

Agricultural production is more prominent in certain parts of the Province, such as the western parts of the Mopani District, with Tzaneen and Modjadjiskloof as central to the fruit basket of the Province, the south-

western part of Sekhukhune around Groblersdal and Marble Hall, and the central parts of the Vhembe District, especially the Levhubu region. Some economic production occurs in traditional authority areas. The availability of water is critical to the agricultural regions, and the future climate change implication could affect production (refer to Chapter 7). The regions that are likely to be impacted by climate change are the following:

- The Sekhukhune areas, Bela Bela, Mogalakwena and Polokwane areas, are expected to experience a decrease in rainfall, coupled with a likely increase in temperature of between 2ºC to 2.50˚C
- The northern part of the Vhembe District is expected to experience temperature increases of up to 30˚C
- The agricultural regions in the central part of Vhembe and the western part of the Mopani District are likely to experience an increase in temperature of between 2˚C and 2.5˚C

The United Nations 2030 agenda for sustainable development is very explicit about ending hunger, achieving food security, improving nutrition and promoting sustainable agriculture under Sustainable Development Goal (SDG) No. 2. According to the agricultural land capability, 50% of Limpopo is moderately to highly suitable for agricultural land uses. However, only about 9% is actually under cultivation.

Two notable agricultural investments in the Province are discussed below.

Marula industrial industry

Among the many indigenous drought-tolerant trees, the Marula, *Sclerocarya birrea subsp caffra*, stands out. It grows abundantly in the wild in certain regions of South Africa. In Limpopo, Marula trees grow in the following municipalities: Greater Letaba, Greater Tzaneen, FetakgomoTubatse, Maruleng, Mogalakwena, Musina, Lephalale, Makhado and Thabazimbi.

Marula is an under-utilised indigenous crop that has significant export potential. The past few decades have seen Marula and its products gaining popularity in the international market due to demand for its many by-products. These include products such as Marula oil and the well-known Amarula cream liqueur.

The intervention by the Limpopo government to develop the sector includes the establishment of a Marula industrial industry, with Phalaborwa as the centre of the industry, and inter-district linkages with smaller Marula hubs. This is aimed at stimulating Marula economic activities in the region and thus creating jobs for local communities. The establishment of the facility will also help to strengthen and further develop the Marula value chain in Limpopo, as well as in the rest of the country.

Limpopo Medicinal Plants and Essential Oils Cultivation and Processing Hub

The Limpopo Province has a wide range of indigenous plant species and a rich heritage of indigenous knowledge on the use of plants as traditional medicines. These natural resources include Baobab, Marula, Aloe, *Artemesia afra*, African ginger, *Lippia javanica*, Cancer bush, Sweet wormwood, Imphepho and Devil's Claw. Historically, various provincial and national institutions have undertaken research, development, innovation and implementation work within this domain in the Limpopo Province. The establishment of the Limpopo Medicinal Plants and Essential Oils Cultivation and Processing Hub will capitalise and expand on this work to develop this sector in a strategic and co-ordinated manner.

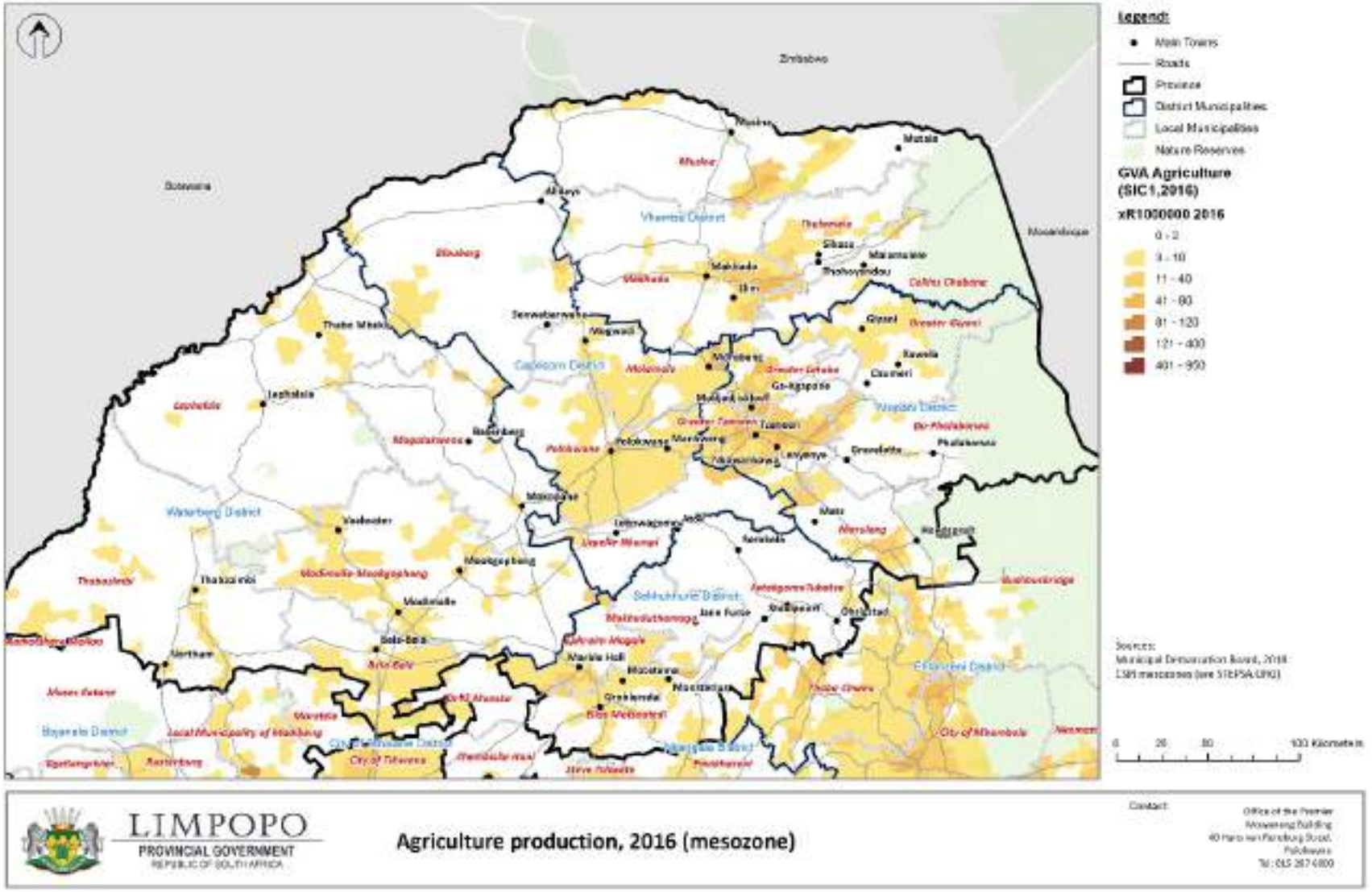


Figure 45: Limpopo: agricultural sector economic production, 2016

Sources: Municipal Demarcation Board 2018; CSIR mesozones (stepSA) 2019

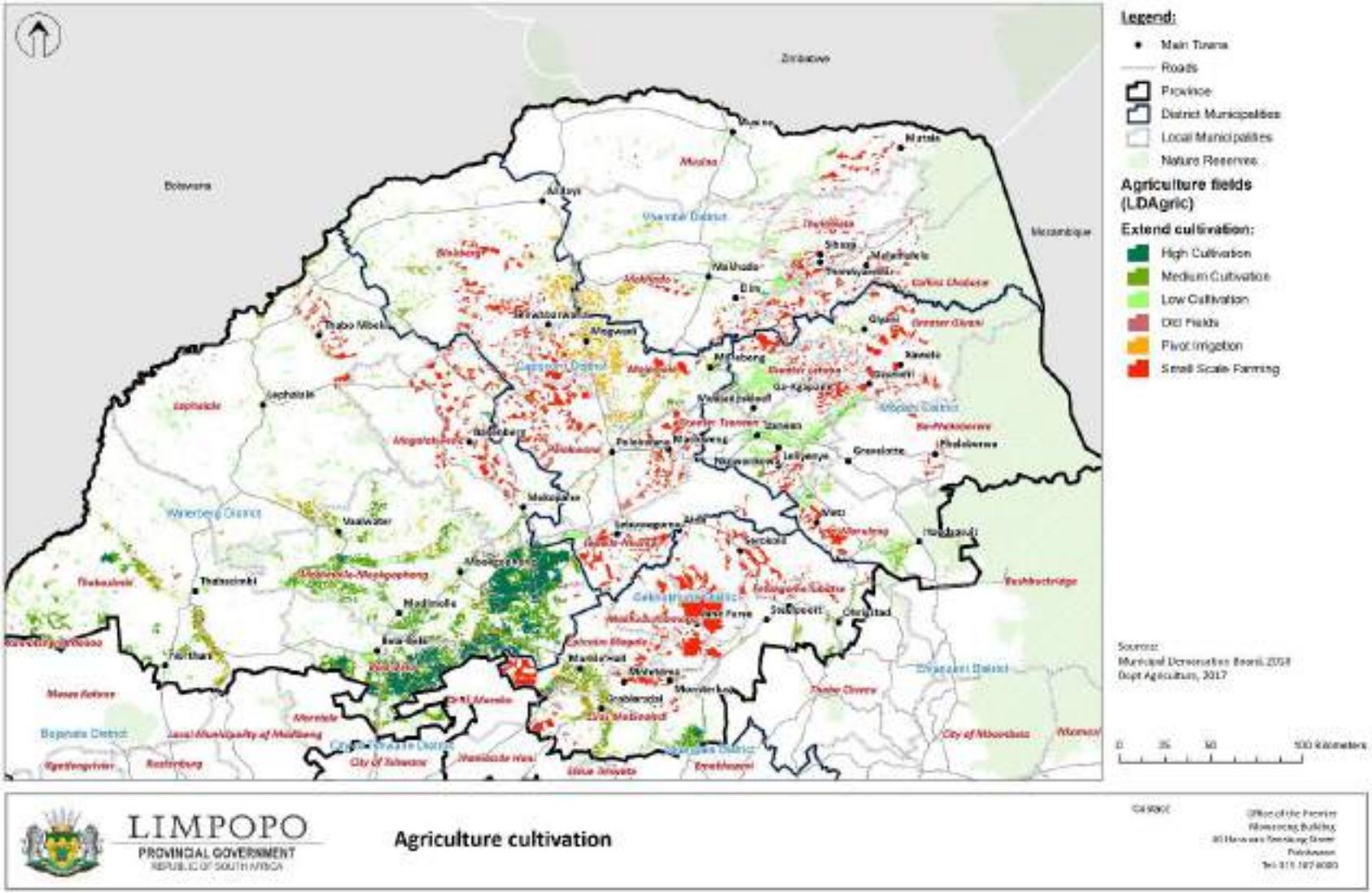


Figure 46: Limpopo: agricultural cultivation

Sources: Municipal Demarcation Board 2018; Department of Agriculture 2017

8.1.6.1 Opportunities

The following opportunities were identified in the agricultural sector:

- The Fourth Industrial Revolution (4IR) is set to significantly impact agriculture and agro-processing, with technologies such as smart information and communication technology (ICT)-based agriculture, and robots already emerging in agriculture in developed countries. The agricultural sector is one of the primary economic activities that can benefit from the adoption of 4IR technologies.
- Smart agriculture has the potential to attract the youthful population
- There is much potential to support and empower small, micro and medium-sized enterprises, or even subsistence farmers
- There is much potential for beneficiation/manufacturing and the development of value chains
- The sector is a major job creator
- Large tracts of land in the Province have high agricultural potential and, as such, must be protected from development by competing land uses such as mining, manufacturing and human settlements
- Sustainable agricultural practices are key to producing more food in a more efficient manner, whilst minimising the impact on the environment and maintaining economic stability
- A Sustainable Farming Systems Programme, focusing on vertical agriculture, aquafeed, aquaculture and aquaponics
- The production of aquafeed (such as mealworms) from agricultural waste
- Developing a precision geospatial information system (GIS) in support of agricultural activity, training and optimization
- Youth training by professional game hunters in partnership with government
- Donation of excess animals by SANPARKS for small emerging farmers

8.1.7 Mining

In 2018, the GDP of the Limpopo Province's mining sectors totalled R88 billion at current prices, contributing 27.8% to the total provincial economy. At a provincial level, after the North West (26.6%), Limpopo was the second-largest contributor towards the national mining sectors' GDP in 2018, contributing 25.4%. As seen in Figure 47, the contribution of the provincial mining sector to the national mining sector grew steadily between 2013 and 2018, with an average overall contribution of 24.82% between 2014 and 2018. The annual sector contribution peaked in 2018, with an annual contribution of 25.36% to the national mining sector.

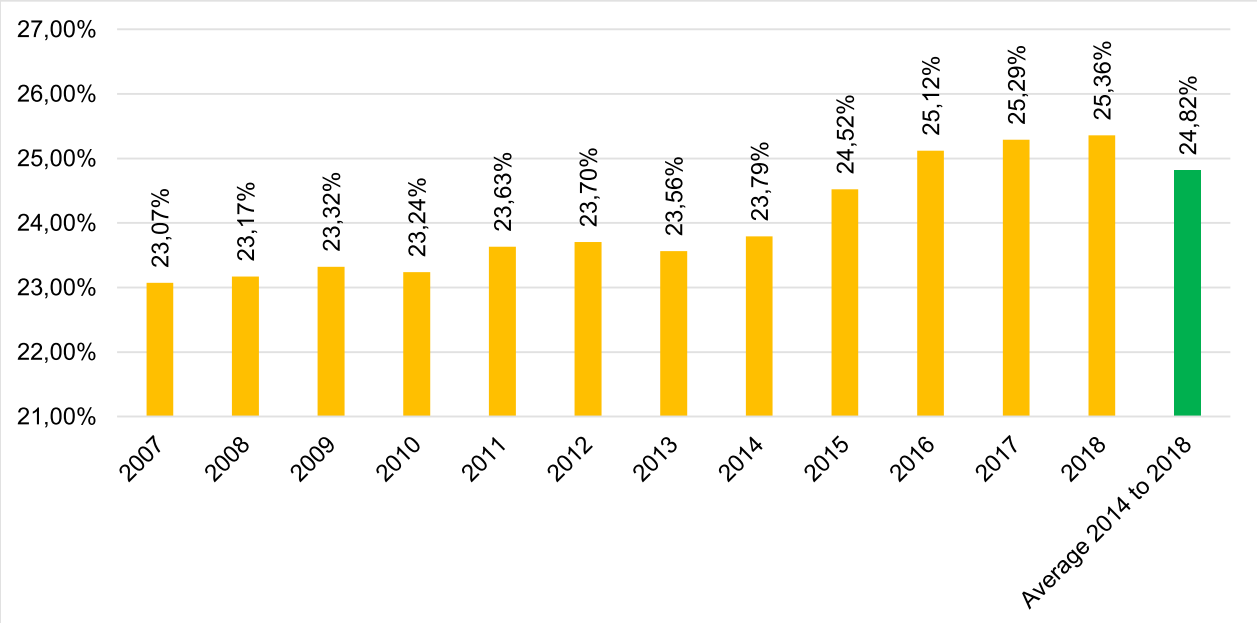


Figure 47: Limpopo's contribution to the national mining sector per annum (current prices), 2007 - 2018
Source: StatsSA 2019

The contribution of the mining sector to the total GDP of Limpopo varied over time (refer to Figure 48), dipping to 26.75% in 2015. The sectoral contribution rose somewhat to 28.38% in 2016, after which it dipped again to 27.83% in 2018. The average annual contribution of the mining sector to Limpopo's total GDP, was 27.90% between 2014 and 2018.

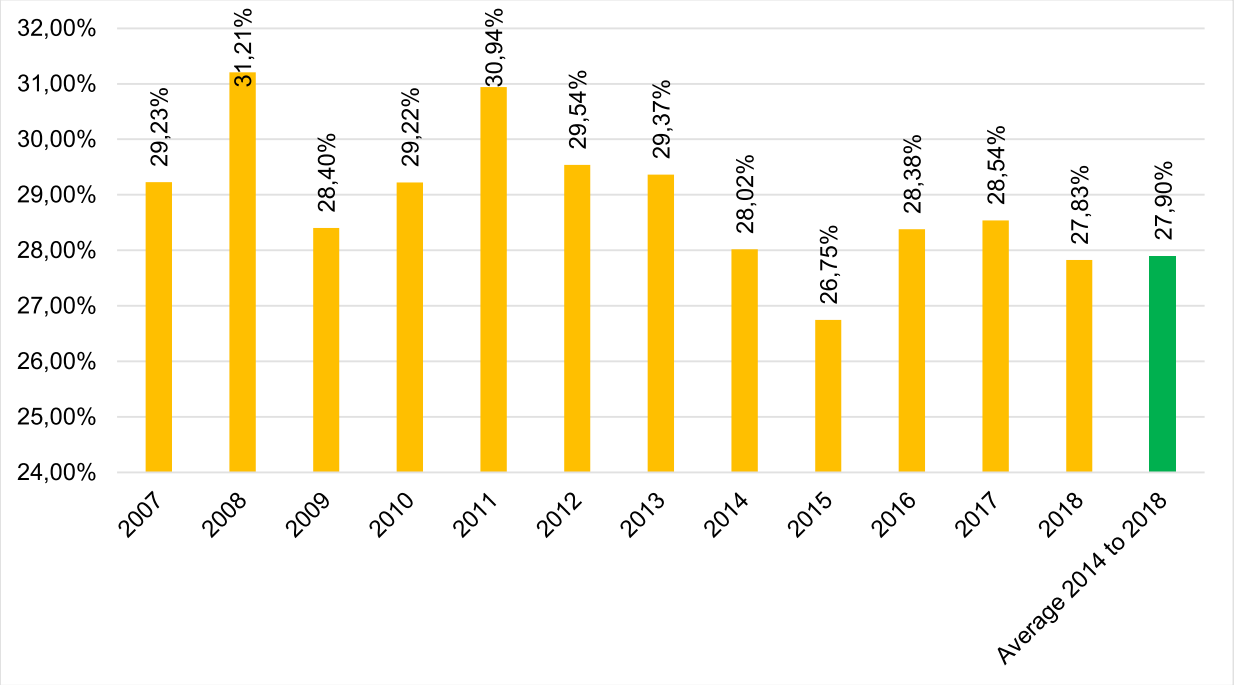


Figure 48: Mining sector contribution to Limpopo's total GDP (current prices) per annum, 2007 - 2018
Source: StatsSA 2019

The annual growth rate of the mining sector in Limpopo plunged from 3.9% in 2014/2015, to -3% in 2015/2016, after which it recovered again to 4.9% in 2016/2017 (refer to Figure 49). The sector's annual growth rate remained very low, at 0.2% in 2017/2018. The mining sector is not seen as one of the largest employers in the Province and, according to the QLFS 2018, the sector employed 6.3% (approximately 91,000 individuals) of the labour force in 2018. This is a decline of 1% from 2017, when the sector employed 7.3% (approximately 103,000 individuals) of the provincial labour force.

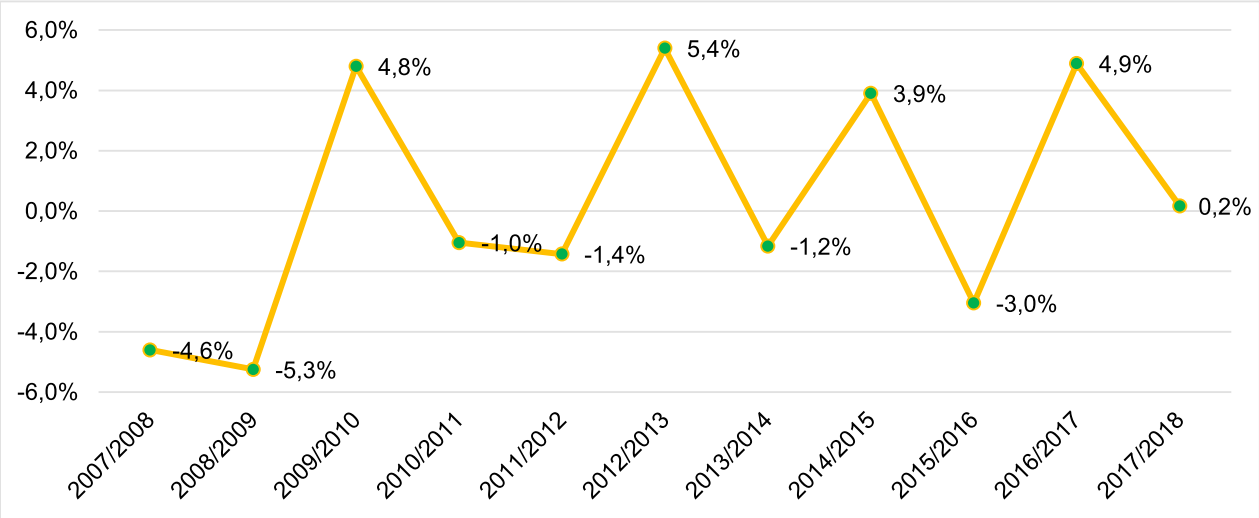


Figure 49: Limpopo's mining sector annual growth rate (constant 2010 prices), 2007 - 2018
Source: StatsSA 2019

Large-scale mining production is dominant in some areas of the Province. Parts of the western limb of the platinum mining belt extend from Bojanala into the Thabazimbi region, while the eastern limb is found in the Burgersfort area. Phosphates are mined at Phalaborwa, while the Lephalale area has coal deposits supplying the new Medupi power station. Diamond mining is located in Vhembe, at the Venetia mine.

Of concern, related to a strong mining presence, is the dependence of some towns on local mining activity. The Limpopo Province hosts substantial reserves of a number of mineral commodities such as coal, platinum group metals (PGMs), chromium, uranium, nickel, cobalt, vanadium, limestone, iron ore, copper, tin, diamonds, gold, semi-precious stones and aggregates. Notable mining-related assets in the Province, as reported by Young (2020) and the Prospectors and Developers Association of Canada (PDAC) (2015), include:

- The largest diamond mine in South Africa (Venetia Mine)
- The largest copper mine in South Africa (Phalaborwa Mining Company)
- The largest vermiculite mine in the world
- The largest vanadium resources in the world
- The largest open-pit platinum mine in South Africa (Mogalakwena Mine)
- 41% of South Africa's platinum group metals (PGMs) resources
- 90% of South Africa's red-granite resources
- 50% of South Africa's coal resources
- Substantial deposits of antimony (A lead-antimony alloy is used in batteries. Other uses of antimony alloys include type metal (in printing presses), bullets and cable sheathing. Antimony compounds are used to make flame-retardant materials, paints, enamels, glass and pottery.)

According to the website of the Department of Mineral Resources and Energy (DMRE), the Limpopo Province currently has 147 operating mines.

Although the provincial economy remains dominated by primary sectors, the relative economic contribution of the mining and quarrying sectors in the Province has declined over recent years. The declining trend in Limpopo's mining production is due to a number of challenges facing the mining sector, such as increasing mining depths, increasing overland distances to working areas, ageing infrastructure, fluctuating commodity prices, and crises such as the financial crisis of 2008 and the current COVID-19 pandemic. Additional factors include labour unrest, strikes and mechanisation. During the 2020 State of the Province Address (SOPA), Premier Mathabatha noted that employment in the mining sector had decreased. However, with the approval of new mining projects, it is envisaged that more jobs will be created in the coming years.

Figure 51 illustrates the municipalities with a high dependence (dominance) on mining activity. The most affected municipalities are Thabazimbi, FetakgomoTubatse, Ba-Phalaborwa and Lephalale. When adding the dependence of local towns, the same picture repeats itself – an emphasis on the dominant role of mining in towns such as Thabazimbi, Burgerfort and Lephalale.

Considering the market uncertainties of commodities and the end-of-life reality of mines, alternative economic industries should be pursued for these towns where possible.

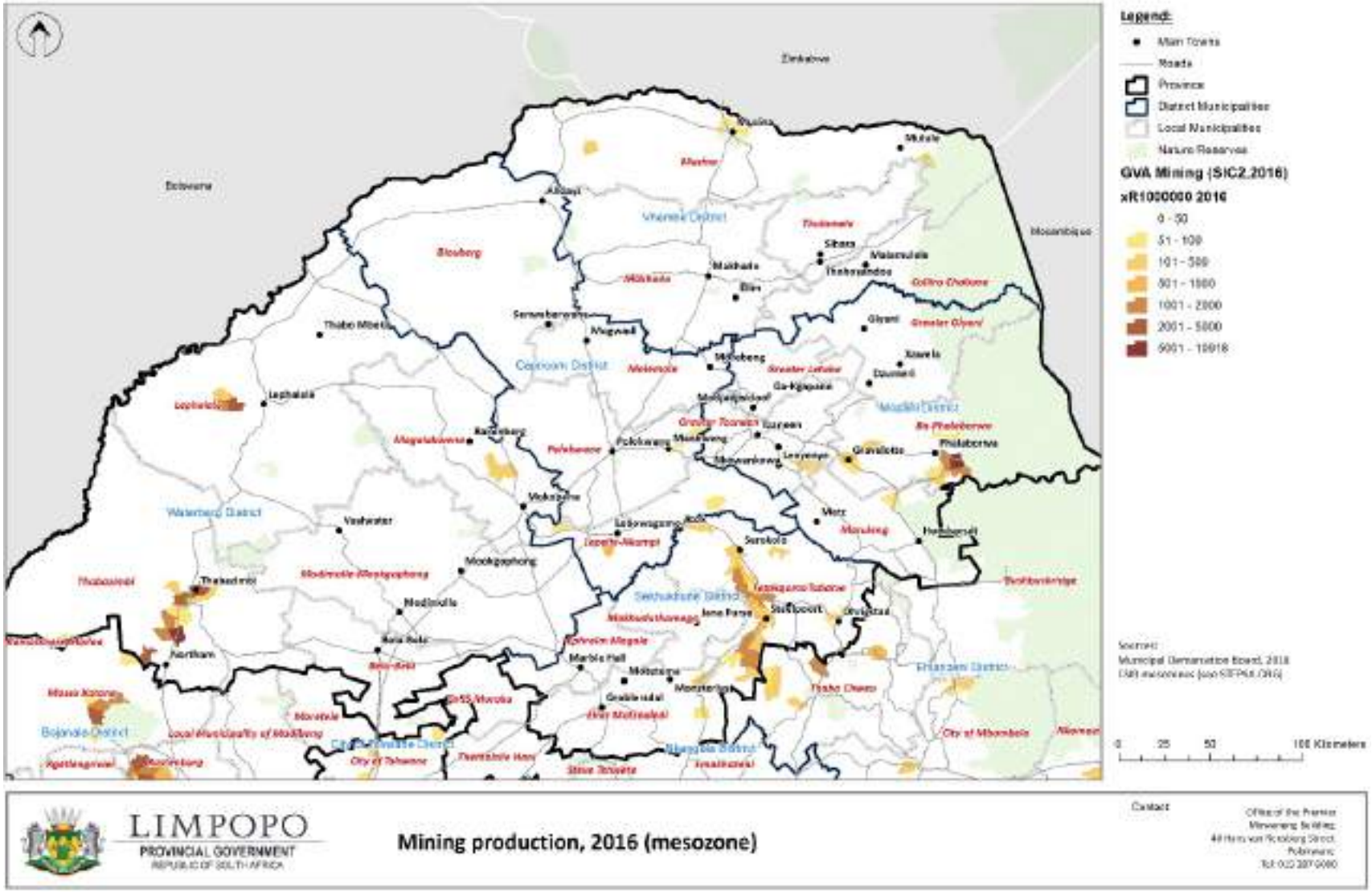


Figure 50: Limpopo Province's mining sector economic production, 2016

Sources: Municipal Demarcation Board 2018; CSIR mesozones (stepSA) 2019

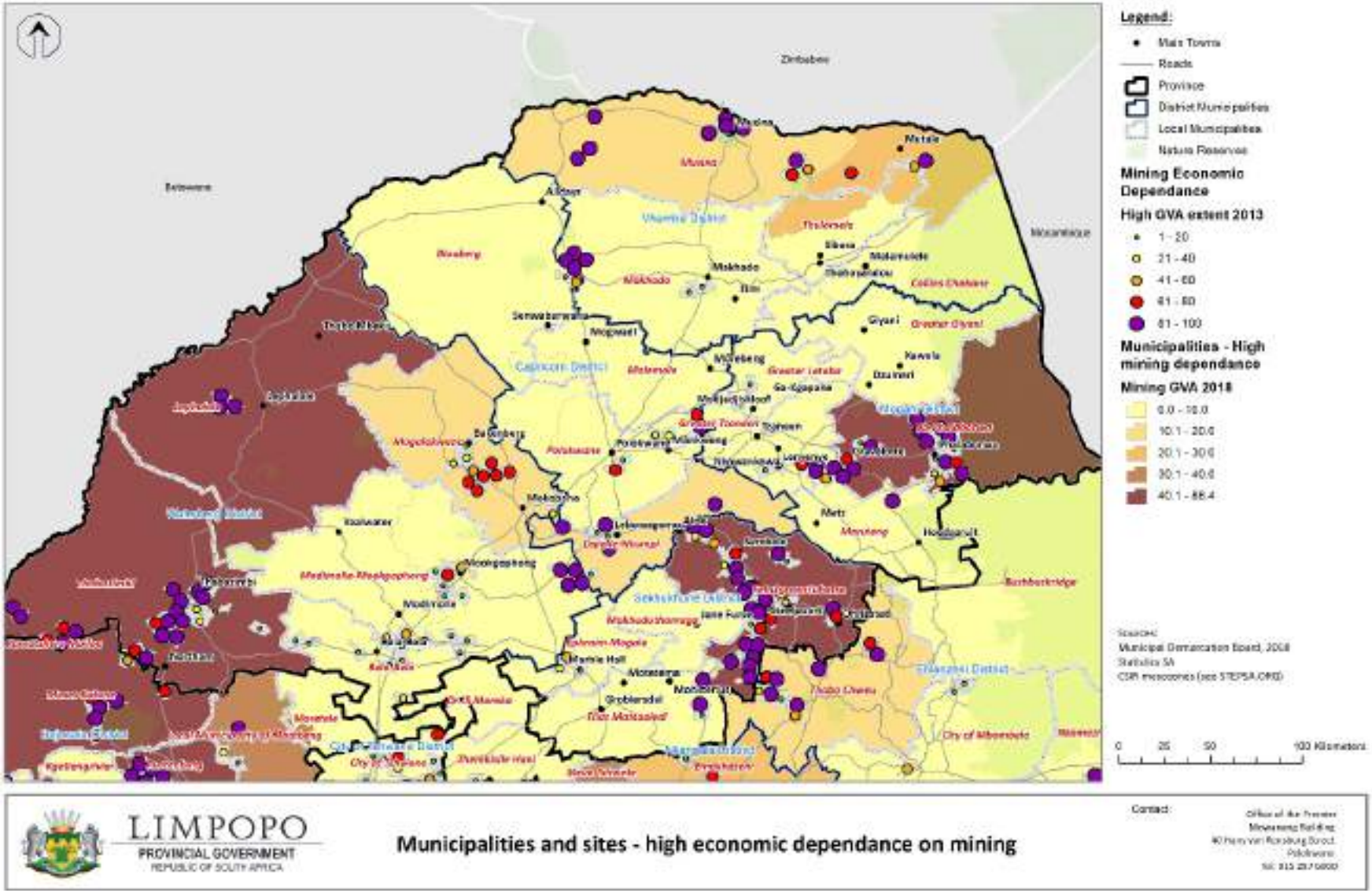


Figure 51: Limpopo municipalities with high dependence on mining, 2013

Sources: Municipal Demarcation Board 2018; StatsSA; mesozones (stepSA) 2019

Apart from the noteworthy impact of the sector on economic growth and job creation, mining also leads to land degradation, destruction of biodiversity, pollution (noise, water, air, land, etc.) and severe impact on other sectors such as agriculture, heritage and tourism. There is a need to moderate the impact of mining in the Limpopo Province in order to ensure that the economy continues diversifying, and that the potential of other sectors are not adversely affected.

During the 2020 SOPA, Premier Mathabatha highlighted that the mining sector in Limpopo envisages receiving a total investment of more than R36 billion over the next five years. Table 15 shows some of the major investment projects in Limpopo that are envisaged for the period between 2020 and 2025 (Young, 2020).

Table 15: Limpopo Province: major mining investment projects for the period 2020 to 2025

Project name	Commodity	Project value	District
Modikwa Mine	PGMs	R1,6 billion	Sekhukhune
Booysendal South Mine	PGMs	R4,2 billion	Sekhukhune
Waterberg PGM Project	PGMs	$617 million	Waterberg
Lesogo Mine Project	PGMs	R5,4 billion	Waterberg
Platreef Mine	PGMs	R20 billion	Waterberg
Lejaja Mine	Coal	R4,2 billion	Waterberg
Grootgeluk and Thabametsi Mines	Coal	R5,1 billion	Waterberg
Venetia Underground Project	Diamond	R2 billion	Vhembe

Source: (Young, 2020)

8.1.7.1 Opportunities

A multitude of additional opportunities exist in the mining sector:

- The promotion of mineral beneficiation remains a critical focus area for the Musina-Makhado Special Economic Zones (SEZs) and Tubatse Platinum Industrial Hub
- The implementation of Fourth Industrial Revolution (4IR) technologies could enhance the viability of the mining sector, through improved operational efficiencies, reduced operational costs, improved competitiveness and improved occupational health and safety (OHS) and skills
- The exploration and mining of rare earth minerals, and the subsequent beneficiation and manufacturing of 4IR-related products such as cell phones and electric vehicles

Table 16: Interventions to enhance the contribution of mining to sustainable development in Limpopo Province

Stakeholder grouping	Opportunities
Government (including local authorities)	*Research and development* • Public sector funding and incentives for research and development focused on sustainability of the local mining community beyond the life-of-mine of operations. Research could include water and pollution management, mining process technology and innovation, recycling, green energy and mining social studies *Education* • Ensure that there is alignment between the education and training curriculum (putting more emphasis on data science, data analysis, computer science, robotics, etc.) with the mining modernisation trends to ensure the availability of the required skills • Provide functional education and training facilities for local mining communities with a focus on modernised mining *Mining value chain* • Develop and implement policies and monitor the progress of promoting upstream, downstream and interlinked mining value chain activities such as exploration, feasibility studies, the supply chain, local beneficiation and manufacturing • Develop and implement policies, and monitor the progress of the creation of alternative economies to current mining operations, such as agriculture, agro-processing, local

Stakeholder grouping	Opportunities
	manufacturing/beneficiation and supply industry development, forestry, game ranching, fishery, tourism, waste recycling and transport in anticipation of future mining employment challenges. *Small-scale mining* • Facilitate the formalisation of small-scale mining operations to build a self-sustaining community
Mining companies	*Economic Resilience Model* • The Economic Resilience Model (ERM) is intended for use during and after the life-cycle of the initiatives being undertaken by Impact Catalyst. It is aimed at determining the degree of shift away from economic dependence on the mining sector, towards a more diversified economic landscape, which will allow mining-dependent communities to survive economically once a mining operation is terminated. *Community engagement* • Collaborate with communities, focusing on issues such as meaningful engagement, timeous and accurate communication, regular feedback, conflict management, establishment of trust, timeous response to community concerns, efficient utilisation of social funds, employment creation, the creation of alternative economies, and strengthening the participation of communities in the mining sector supply chain processes *Research and development* • Conduct Social Impact Assessments to enable a holistic understanding of envisaged technological and modernisation trends and associated impact on employment patterns, skills demand and community needs and expectations • Fund research in, and develop, mining technology locally, considering the wealth of knowledge from current and former mining employees; promote the involvement of the low-level workers (operators) in the research and development of equipment *Human capital development* • Up-to-date skills development programmes that are in line with national and global trends of 4IR, innovation and technology • Creation of accessible adult and continuing education systems could encourage lifelong learning; proactive reskilling, retraining and upskilling of the current workforce could also mitigate potential job losses and skills shortages *Procurement and supply chain* • Implement the Mining Charter requirements by involving the local communities in the mining supply chain, for instance, the local communities could supply personal protective equipment, cleaning accessories and other easy-to-manufacture mining input resources
Organised labour	*Human capital development* • In collaboration with other stakeholders, promote proactive reskilling, retraining and upskilling of current union members, to mitigate potential job losses and skills shortages
Mining communities	• Participate actively, in collaborating with mining companies, and governmental local authorities in the drafting of social and labour plans and other policies that affect the local mining communities; these plans should align with overall municipal planning and delivery • Promote entrepreneurship within local communities to meaningfully participate in the mining value chain • Empowering members from mining communities to start their own businesses such as salons, car washes, mechanics and tyre fitment centres
Financial institutions	• Development of sustainable and customised funding models for different categories of mining companies • Funding the research and development of solutions that can drive sustainable development of the mining sector
Educational and training institutions	*Research and development* • Conduct research on the effects of economic and technological changes on the quantity and quality of jobs loss • Investigate how job losses in the mining operation can be absorbed by other mining value chain sectors such as manufacturing • Investigate where and how additional jobs can be created along the mining value chain, and associated linkages *Human capital development*

Stakeholder grouping	Opportunities
	• Ensure that skills development curricula are up to date and in line with future trends such as the 4IR, which requires education and exposure to science, technology, engineering and mathematics (STEM) subjects at early stages of education • Improve career guidance and awareness campaigns • Creation of accessible adult and continuing education systems could encourage lifelong learning • Skilled workforce recruited outside the mining communities should contribute to capacity building in their areas of expertise
Mining suppliers (including equipment manufacturers)	*Inclusive innovation* • Promote the involvement of low-level workers (operators) and former mining employees in the research and development of equipment

8.1.8 Manufacturing

In 2018, the GDP of the Limpopo Province's manufacturing sectors totalled R8,448 million at current prices, contributing 2.6% to the total provincial economy. At a provincial level, Limpopo made a very small contribution (1.5%) to the national manufacturing sectors' GDP in 2018. As seen in Figure 52, the contribution of the provincial manufacturing sector to the national manufacturing sector varied slightly over time between 2007 and 2018, with the lowest contribution being 1.29% in 2007, and the highest contribution being 1.7% in 2015. The manufacturing sector had an average overall contribution of 1.62% between 2014 and 2018.

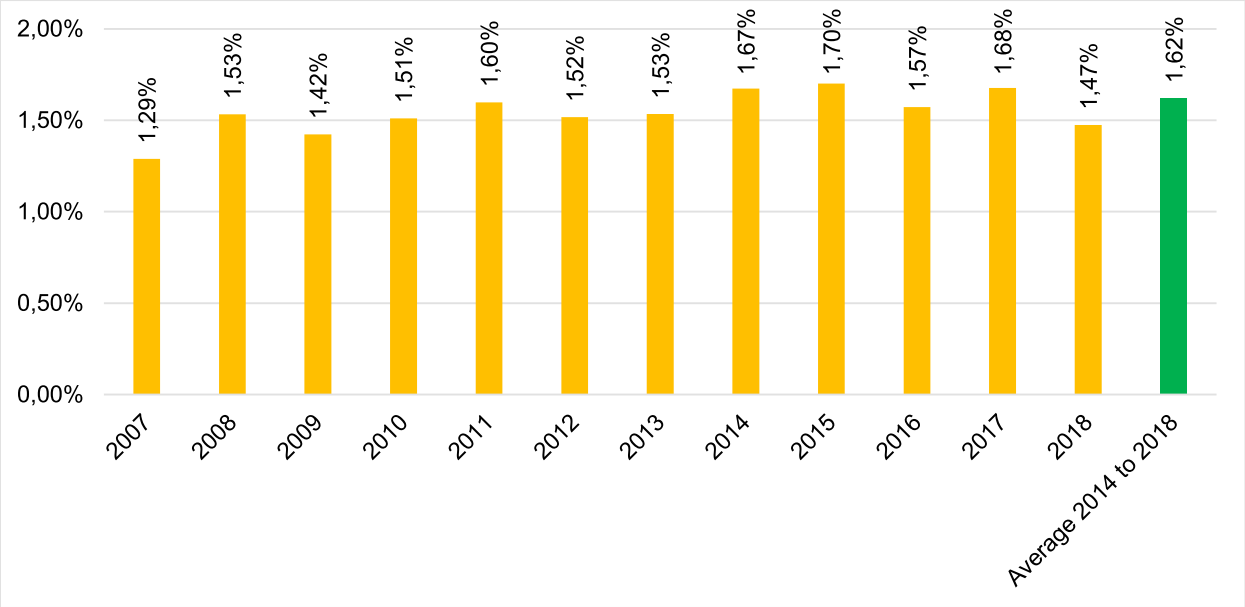


Figure 52: Limpopo's contribution to the national manufacturing sector per annum (current prices), 2007 - 2018

Source: StatsSA, 2019

The contribution of the manufacturing sector to the total GDP of Limpopo varied over time (refer to Figure 53), showing slight peaks in 2008 (3.57%), 2015 (3.21%) and 2017 (3.08%). The average annual contribution of the manufacturing sector to Limpopo's total GDP was 3.0% between 2014 and 2018.

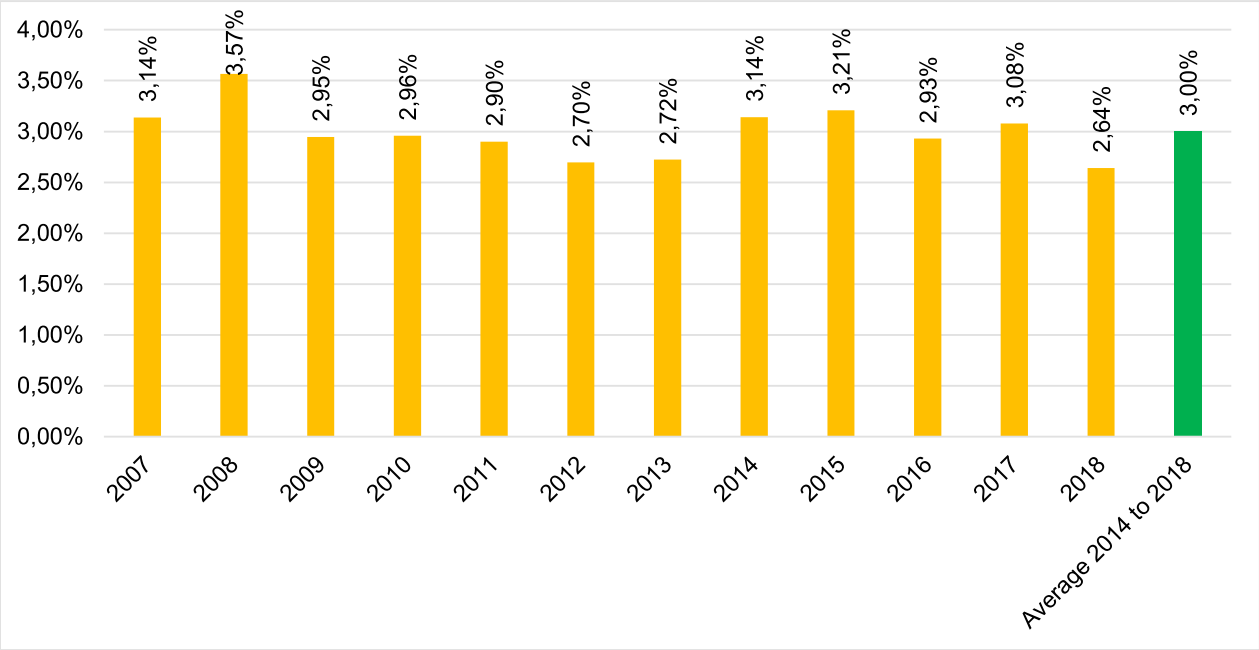


Figure 53: Manufacturing sector contribution to Limpopo's total GDP (current prices) per annum, 2007 - 2018

Source: StatsSA 2019

The annual growth rate of the manufacturing sector in Limpopo declined from 3.1% in 2007/2008, to -11.2% in 2008/2009, after which it grew very rapidly to 6.2% in 2009/2010 (refer to Figure 54). The sector declined again after 2009/2010 and remained low up to 2017/2018, reaching a low of -1.2% in 2014/2015, and a high of 2.3% in 2013/2014. According to the QLFS 2018, the manufacturing sector employed 5.8% (approximately 85,000 individuals) of the provincial labour force in 2018, which is a decline of 0.6% from 2017, when the sector employed 6.5% (approximately 91,000 individuals) of the provincial labour force.

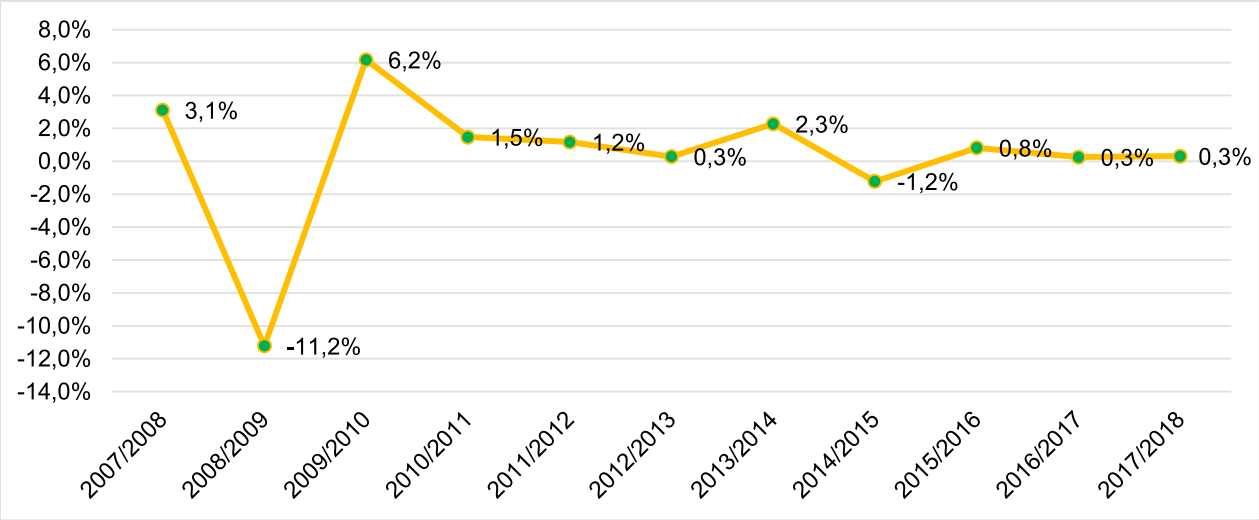


Figure 54: Limpopo's manufacturing sector annual growth rate (constant 2010 prices), 2007 - 2018

Source: StatsSA 2019

Manufacturing currently contributes 3.9% of Limpopo's economic output and employs 6.3% of the labour force. Recently, ~90% of the manufacturing sector had a reduced turnover as a result of the COVID-19 pandemic, compared to normal operations, with more than 80% of manufacturers experiencing reduced trading capacity or completely closing down.

The manufacturing sector in Limpopo is driven by three primary sub-sectors, namely the food, beverages and tobacco sub-sector (contributing 26.0% of manufacturing in the Province); the metal, metal products,

machinery and equipment sub-sector (18.9%); and the petroleum products, chemicals, rubber and plastic sub-sector (14.6%). It is recommended that this base be consolidated and expanded to assist with the post-COVID-19 economic recovery in the Province.

It is noticeable that the manufacturing sector is limited to a number of towns in the Province (refer to Figure 55) with insignificant sector activities at import/export areas such as Musina. The Musina-Makhado SEZ therefore has the potential to create opportunities for the import and export market within this sector.

The Limpopo Province has made strides in developing the manufacturing sector through the implementation of Special Economic Zones (SEZs) and industrialisation hubs such as Musina-Makhado and Fetakgomo Tubatse, respectively. The SEZs are investment focus areas and are of particular relevance to the manufacturing sector and infrastructure provision, and connectivity are key success factors for the SEZs.

8.1.8.1 Limpopo industrialisation path

The last five years of the LDP can be characterised as a planning period, in which the provincial government developed industrialisation plans and programmes, and the next five years (2020-2025) will see the implementation of both mega-industrialisation projects and sector plans. The following are the provincial plans for industrialisation which, if implemented in the 2020 to 2025 period, will lead to a higher growth trajectory and achievements of the LDP macro-economic and social outcomes.

Mega-industrialisation projects

The mega-industrialisation projects prioritised by government, detailing the value addition to the economy and the possible number of jobs to be created, are indicated in the table below.

Table 17: Mega-industrialisation projects

Programmes/ Project	Value add	Job creation/ saving	Size and location
Musina-Makhado SEZ	R150 billion	21,700	28^{2}km between Musina and Makhado (Vhembe)
Tubatse Platinum Industry	R25 billion	8,000	1,220Ha in FetakgomoTubatse (Sekhukhune)
Industrial Parks (Nkowankowa	R40 million	3,737	Nkowankowa, Mopani
Industrial Parks (Seshego)	R35 million	1,262	Seshego Township, Capricorn
Industrial Parks (Thohoyandou)	R139,5 million	1,000	Shayandima, Vhembe
Limpopo Science and Technology Parks	R4 billion	TBC	Weltevreden, Polokwane, 242ha
Limpopo High Speed Train	TBC after feasibility	TBC after feasibility	Jhb to Musina (523.6km)
Commercialisation of provincial nature reserves	R1,3 billion	To be determined after completion of the feasibility studies	Masebe, Lekgalameetse and Rust De Winter
Waste Management and Green Economy: Establishment of District Recycling Centres and Industrial Symbiosis	TBC after feasibility	TBC after Feasibility	All districts

Source: Revised Limpopo Industrial Master Plan 2020-2025

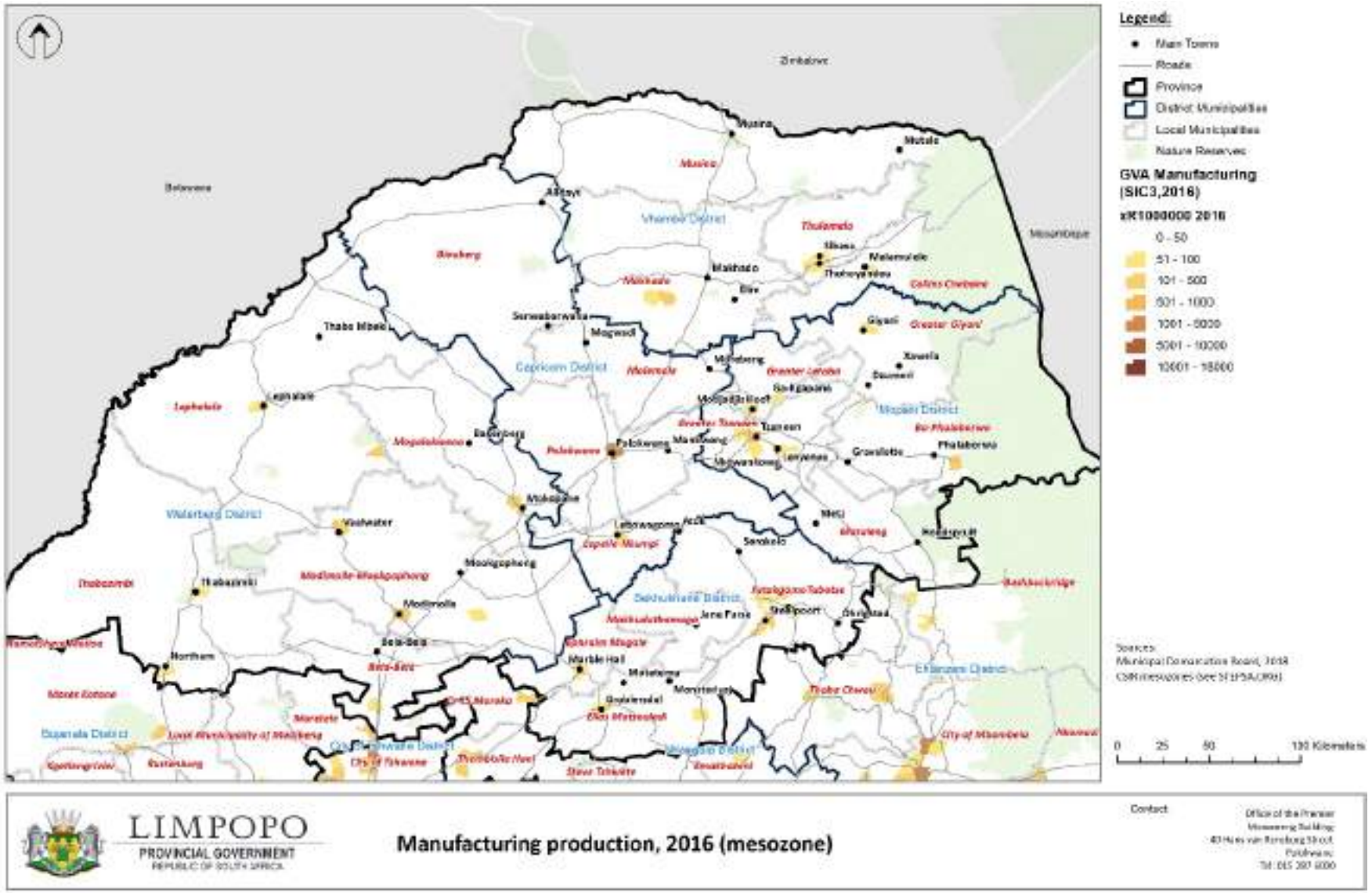


Figure 55: Limpopo: manufacturing sector economic production, 2016

Sources: Municipal Demarcation Board 2015; CSIR mesozones (stepSA) 2019

Mega-projects towards agro-industrialisation

A number of agricultural projects and agro-processing projects were identified to be planned and implemented by government through industry and private sector partnership. The projects entail primary production linked with processing, domestic and export markets as part of agro-industrialisation.

Table 18: High-growth catalytic projects

Project name	Project scope	Estimated total project cost	Estimated Jobs	Implementation time frame years	District
Fruit industry					
Venmac	Development of a greenfield of 1,500ha macadamia orchard in Vhembe and pack house	R200 million	300	2020/21-2024/25	Vhembe
Makgoba Fruits	Development of greenfield of 100ha in Mopani	R80 million	TBC	2020/21-2024/25	Mopani
Zebediela Citrus	Refurbishment of irrigation and electrical infrastructure	R200 million	TBC	2020/21-2024/25	Capricorn
Limburg citrus	Planning and development of 500 citrus orchards and pack house	R150 million	TBC	2020/21-2024/25	Waterberg
Tshakuma CPA	Planning and expansion of Macadamia orchards by 200ha	R80 million	TBC	2020/21-2024/25	Vhembe
Tshivhase Macadamia	Establishment of macadamia orchards on 500ha	R100 million	TBC	2020/21-2024/25	Vhembe
Afrupro	Development of a greenfield for the establishment of 400ha of avocadoes on community land	R80 million	600	2020/21-2024/25	Mopani
Boskop	Re-development of the defunct restituted farm to re-establish 350ha planted with a combination of high-value citrus fruits, with a pack house	R160 million	800	2020/21-2024/25	
Morebene	Development of a greenfield for the establishment of 300ha of avocadoes on community land, with community taking 51%	R70 million	1000	2020/21-2024/25	Capricorn
Vegetables					
Potato belt development	500ha potato development linked with Tala Foods	TBC	TBC	2020/21-2024/25	Capricorn
Production of tomato for Norjax Canning	2,500ha tomato production linked to Norjax Canning	TBC	TBC	2020/21-2024/25	All districts
Field crops					
Cotton production	1,000ha cotton production to broaden black producer participation	TBC	TBC	2020/21-2024/25	Sekhukhune and Vhembe
Soybean production	1,500ha soybean production through grower partnership	TBC	TBC	2020/21-2024/25	Sekhukhune and Waterberg

Source: Revised Limpopo Industrial Master Plan 2020-2025

Table 19: Agro-processing projects

Programmes/Project	Value add	Job Creation/Saving	Size and Location
Tala Food - LEDA Potato Processing	R100 million	TBC	Capricorn
Operationalisation of Norjax Canning for Tomato Processing	TBC	TBC	Mopani
Operationalisation of Lebowakgomo Poultry Abattoir	TBC	TBC	Capricorn

Source: Revised Limpopo Industrial Master Plan 2020-2025

In addition, a feasibility study was commissioned to recommend immediate interventions in agro-processing which investigated the possibility of the implementation of a multipurpose agro-processing facility in the area of Mogalakwena Municipality. This will be a multi-purpose facility designed to process Moringa, guar and other crops, into value-added products, such as oil, biodiesel, guar gum and other industrial-related products. It is envisaged that such a facility could contribute towards the creation of much needed jobs within the communities around mining operations in Mogalakwena.

Public-private partnership projects

Each district will be allocated mega local economic development projects that are initiated and led by the private sector, and government's role will be that of support, particularly during the project preparation and development phase.

Table 20: Limpopo mega local economic development projects

Project	Value add	Job Creation/Saving	District
Lephalale Logistics Hub in Lephalale	Projected R25 billion when complete	Projected 8,500 when complete	Waterberg (Steenbokpan 25km away from Medupi power station)
Agro-processing Pharmaceutical Hub	TBC after the feasibility study	TBC after the feasibility study	Mopani
Transport and Logistics Hub in Polokwane	TBC after the feasibility study	TBC after the feasibility study	Capricorn

Source: Revised Limpopo Industrial Master Plan 2020-2025

Sector-led growth path

Sector development in the Limpopo Province is guided by the Revised Limpopo Industrial Master Plan (2020 – 2025). According to the plan, government will develop a sector support plan for the eight sectors that are considered the dominant and sunrise sectors, to ensure that they increase the manufacturing sector share to provincial output, and create employment, new entrepreneurs and black industrialists. Furthermore, the sector strategies and sector support programmes will be developed together with critical stakeholders, such as industries and academia, and consultation will be undertaken with industry and labour bodies, and with communities.

The sector strategies will focus on new industries, capital goods, wage goods and modern industries, along with radical programmes for inclusivity, focused on the previously-excluded society (Black people, township SMMEs, co-operatives, etc).

Table 21: Industrial sector support programmes

Sector/Sub-sector	Sector support programmes	Activities (2020-2025)	Strategic partners
Mining and beneficiation	• The development of battery economy • Catalytic converters	• Offtake from PGM mining • Research and development (skills development) • Smeltering • Production facilities • Market access	• DMR, DST, IDC, commercial funders, CSIR and the dti, Mining Council, mining houses, communities and OEMS (Tesla, etc)
Agro-industrialisation	• Increase primary agriculture yield by increasing high-value production such as citrus • Establish agri-parks	• Establish a stronger linkage between primary agriculture and agro-processing • Increase farmers support: machinery, land, production and market access • Develop production infrastructure linked to retail and export	• Land Bank, National Department of Agriculture and Rural Development, ARC, commercial farmers, emerging farmers, traditional leaders, IDC, retailers
Construction and building materials	• Expand construction and building material incubators	• Link construction and building material incubator to government infrastructure programmes (housing, roads)	• Department of Public Works, Roads and Infrastructure, IDC, retail, TVETs, the dti, SEDA
Furniture	• Expand furniture incubation programmes	• Develop skills programme • Develop a sourcing strategy including take-off with government and retail sector • Develop a shared production facility • Develop a market emporium	• The dti, Education and Health Departments, SAFCOL, SEDA, retail, TVETs
Knowledge-driven economy and ICT	• Develop science and technology park • Mainstream 4IR mechanism • Implement a 4IR blueprint • Increase connectivity • Local innovation (science and technology park)	Establish partnership to deliver on 4IR with the following key focus areas: • Skills-foundation (coding), technical and academic (hardware and programming) • Manufacturing of interfaces	• CSIR, TIA, DST, education, software development companies, hardware development companies, USASA, Broadband Infraco, DoC, SITA, TVETs, Academia, Sentech

Sector/Sub-sector	Sector support programmes	Activities (2020-2025)	Strategic partners
Green economy	• Establishment of district-based waste management (recycling through buy-back) centres • Establishment of production facilities through industrial symbiosis programme • Waste management • Alternative energy production	• Develop offtake agreements with municipalities on the usage of landfills • Intensify the skills development programmes • Establish the district recycling buy-back centre • Develop district shared production facilities	• Municipalities, commercial funders, investors
	• Implement wildlife economy programmes	• Wildlife Economy Co-ordinating Sub-Committee initiated • Donate herds of game to previously disadvantaged individuals (PDIs) • Culling for venison in nature reserves by communities around protected areas and neighbouring communities • Hunting packages sold to communities, particularly PDIs • Community hunting quota allocations to the benefit of co-managed reserves • Communities benefitting from community levy in co-managed nature reserves	• Wildlife industry • Community property associations • SANDF • SANPARKS • DEFF
	• Implement biotrade or bioprospecting programme	• Identify hectares of land for cultivation of identified indigenous species by communities • PDIs (youth, women and disabled) participate in the bioprospecting/ trade value chain • Plant-based value chain developed through the Council for Scientific and Industrial Research (CSIR) • Hi-hanyile medicinal and essential oil project funded from Environmental Protection and Infrastructure Programmes (EPIP), supported by the LEDET • Dloziliyakhala medicinal and essential oil project funded from the EPIP, supported by LEDET • Makonde multi-purpose project, farming African Ginger, funded from the EPIP, supported by LEDET • 100% participation in Bioprospecting Access and Benefit Sharing (BABS) permit applications (assessed and reviewed) for the Limpopo Province	• Wildlife industry • Community property associations • Private sector • Co-operatives • Non-governmental organisations • Traditional healers • Civil society

Sector/Sub-sector	Sector support programmes	Activities (2020-2025)	Strategic partners
Tourism	• Transformation of the industry • Enhancing Limpopo status as a tourism mecca • Support tourism product owners	• Implementation of tourism strategy • Production of tourism-related products e.g. textiles • Implement community PPP models of tourism products • Heritage	
Creative industry	• Film Sector • Arts (including music) and crafts • Fashion • Culture	• Implement sector support programmes	• Heritage Council • Department of Arts and Culture • Department of Sports • Music Industry bodies • Films and Publications Boards • Limpopo Film Commission

Source: Revised Limpopo Industrial Master Plan 2020-2025

Enabling the environment for industrialisation

The implementation of the industrialisation agenda is dependent on government as an enabler to achieve success. The following enablers have been identified as the critical success factors in this regard.

Table 22: Limpopo Province: enabling environment for industrialisation

Project	Challenges	Planned action
Water	Most industrial and mining investment cannot be effected because of the shortage of water	• Address the implementation backlog of water projects • Develop new water resources to unlock industrialisation
Energy	Most industrial and mining investment cannot be effected because of the shortage of water	• Develop new energy sources
Investment one-stop-shop	The cost of doing business	• Ensure that the investment one-stop-shop is functional
Investment incentives	The national incentive scheme is not adequate and there are new industrial incentives that are not incentivised	• Create a provincial incentive framework
Demand-driven skills for the economy/industry	Mismatch of skills	• Ensure that the Limpopo Skills Academy is established and functional
Project development fund	There is no dedicated funding to package the projects	• Set aside the project preparation and development fund and strengthen the project management unit
Roads and transport infrastructure (multi-modal transport)	Poor connectivity infrastructure	• Implement Limpopo Infrastructure Master Plan (dependent on the proportion of the R7 billion government annual expenditure on infrastructure)
Local procurement	Minimum participation of designated groups	• Implement a local procurement strategy
Enterprise and entrepreneurship programmes	Expand to the targeted group (women, youth and people with disabilities)	• Implement the Township and Rural Economy Development Strategy, the Informal Business Strategy, the Co-operative Strategy and SMME Strategy

8.1.8.2 Opportunities

The following opportunities were identified in the manufacturing sector in the Limpopo Province:

- Entrepreneurship, enterprise development, SMME support
- Mineral beneficiation (platinum, copper, diamonds and coal), including smelting, batteries and catalytic converters
- Agro-processing
- Independent power producing
- Waste collection and separation
- Waste recycling facilities
    - Waste tyre recycling was identified as an economic development opportunity during the Limpopo Impact Catalyst ESD Project and private sector partnership is explore. Tyre recycling is about considering the environment, the creation of economic activity through reprocessing tyres into constituent parts (rubber crumb, carbon black, steel and energy products) and value addition. Granulation method is the preferred option, from an environmental and economic development point of view.
- Waste reuse and repurposing
- Supply chains and agro-processing can be optimised using Artificial Intelligence (AI) systems

- Development and expansion of SEZs (Musina-Makhado (metallurgical processing) and Fetakgomo-Tubatse (mining input supplies, energy production) to other commodities
- Cross-border free trade, e.g. Mozambique, Botswana, Zimbabwe
- Facilitate linkages to global value chains
- Local maintenance of infrastructure
- Transport and communication infrastructure and industrial corridors to strengthen rural and urban linkages
- 3D printing
- Personal protective equipment: The Enterprise Creation for Development (ECD) program of the CSIR is contracted by Exxaro to investigate the viability of establishing an enterprise manufacturing PPE goods in Limpopo. The manufacturing of personal protective equipment (PPE) was identified by the DTI as one of the opportunities for local manufacturing. The use of PPE has become even more prevalent after the outbreak of the COVID-19 pandemic

8.1.9 Construction

The South African construction industry has been in decline since 2017, with the industry's output value in real terms contracting by 3.3% in 2019. This decline is attributed to an economic slowdown, coupled with weak consumer and investor confidence, affecting public and private sector investments in construction projects. The negative impact will persist as the industry continues to be hit hard by the impact of high national debt, labour shortages, and low infrastructure spending amid a depressed economy.

The construction industry will contract further in 2020 due to the COVID-19 outbreak and the strict nationwide lockdown imposed on 26 March 2020, coupled with a bleak economic outlook. According to Statistics South Africa (StatsSA), the industry's value-add at constant 2010 prices declined by 5.3% year-on-year in the first quarter of 2020. The industry will contract even further in the next quarter, as most of the construction activities were temporarily halted in April and May, before the industry was allowed to resume operations in June. The declining building permits for both residential and non-residential buildings will weigh on the industry's output over the short and medium terms.

The declining trend in public infrastructure spend is largely due to municipalities and state-owned companies substantially reducing their spending over the past few years. Transnet, Eskom and several major state-owned enterprises (SOEs) have struggled to access capital markets to finance capital projects and infrastructure programmes. Most municipalities have been consistently underspending on conditional infrastructure grants and are not collecting enough revenue to finance their capital budgets. The same trend is visible in infrastructure spending as a percentage of GDP.

The construction sector is the delivery mechanism by which fixed capital investment projects are delivered on the ground. It is also the sector within the total infrastructure and property industry that creates the most jobs and that can channel money to a wide spectrum of employees and labour creation, whilst supporting the material supply industry.

Typical impediments experienced by the sector include:

- Lack of “line of sight” of the project pipeline on both public and private sector projects due to cumbersome statutory and procurement processes
- High cost associated with entering the construction industry to qualify for large-scale projects
- Institutional capacity to support the construction sector and the slow speed of industry transformation and skills sharing
- Cost of construction materials, whether locally manufactured or imported, is linked to international supplier price-creep, leading to high costs to end users and a reduction in viable projects
- High risks associated with the industry make it difficult to obtain financing, both operational and development-related
- Challenges with the availability of state-owned land, which falls under various departments and SOEs, and which could be utilised for the Public Infrastructure Build

These impediments reflect on all sub-sectors that form part of the property and infrastructure development sector.

In 2018, the GDP of the Limpopo Province's construction sector totalled R9,703 million at current prices, contributing 3.0% to the total provincial economy. At a provincial level, Limpopo made a small contribution (5.7%) to the national construction sector's GDP in 2018. As seen in Figure 56, the construction sector peaked in 2009 and 2010, contributing 6.85% and 7.32% respectively to the national construction sector. The contribution of the provincial construction sector to the national construction sector varied slightly between 2011 and 2018, with the lowest contribution being 5.07% in 2011, and the highest contribution being 5.93% in 2016. The manufacturing sector made an average overall contribution of 5.75% between 2014 and 2018.

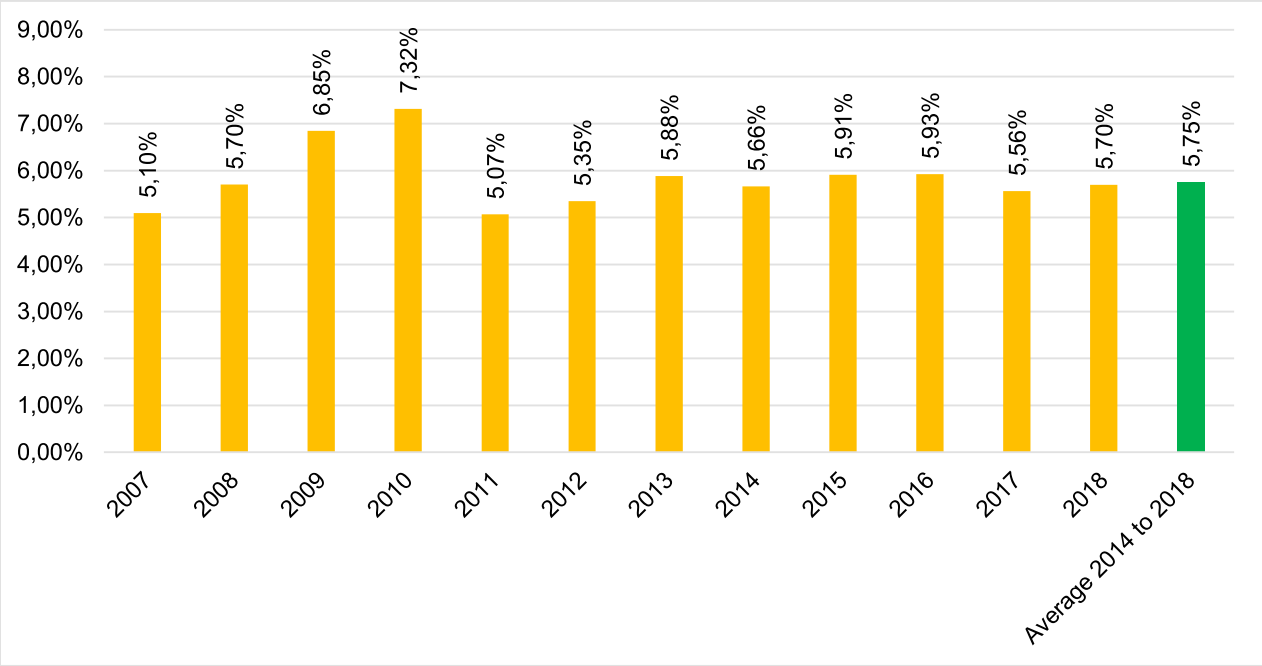


Figure 56: Limpopo's contribution to the national construction sector per annum (current prices), 2007 - 2018

Source: StatsSA 2019

The contribution of the construction sector to the total GDP of Limpopo varied over time (refer to Figure 57), peaking between 2008 and 2010, before dipping to 2.63% in 2011. The sectoral contribution rose somewhat in 2015, to 3.42%, after which it dipped again to 2.98% in 2017. The average annual contribution of the construction sector to Limpopo's total GDP was 3.19% between 2014 and 2018.

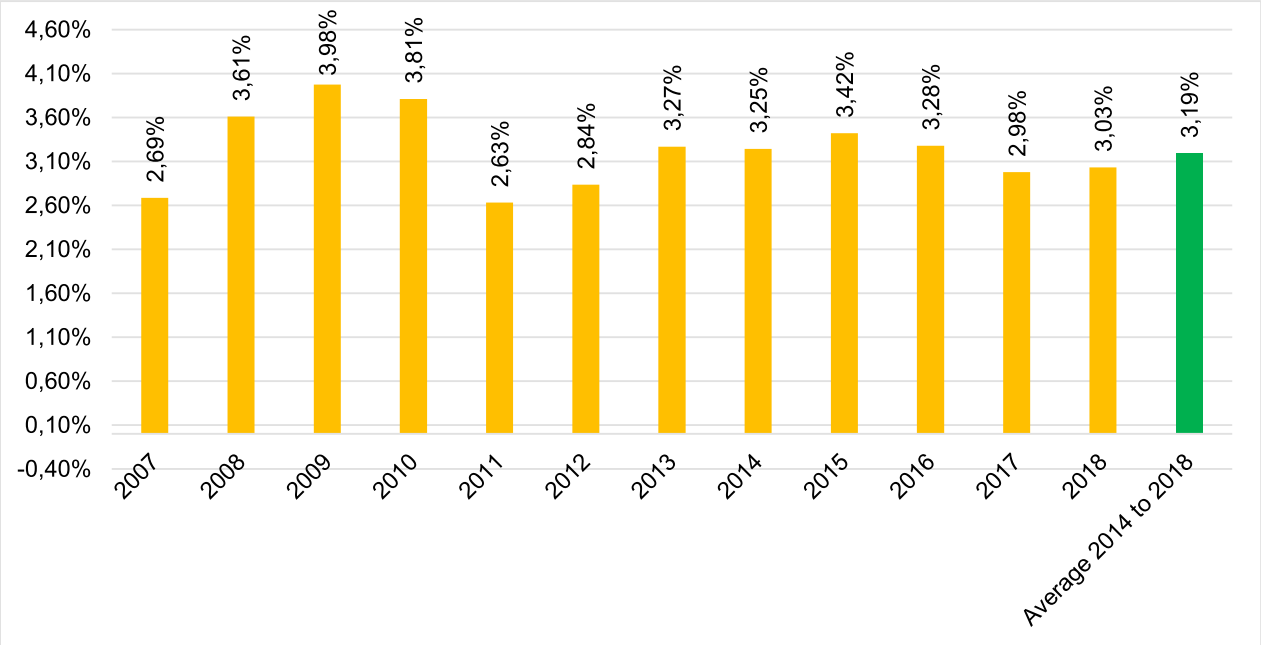


Figure 57: Construction sector contribution to Limpopo's total GDP (current prices) per annum, 2007 - 2018

Source: StatsSA 2019

The annual growth rate of the mining sector in Limpopo plunged from 13.3% in 2007/2008, to 0.6% in 2010/2011, after which it recovered again to 2.9% in 2011/2012 (refer to Figure 58). The sector's annual growth rate experienced a negative growth rate in 2016/2017 (-0.3%) and 2017/2018 (-0.6%). The construction sector is the third largest contributor to the Province's employment. According to the QLFS 2018, the sector employed 10.3% (approximately 151,000 individuals) of the labour force in 2018, which is an increase of approximately 3,000 individuals from 2017.

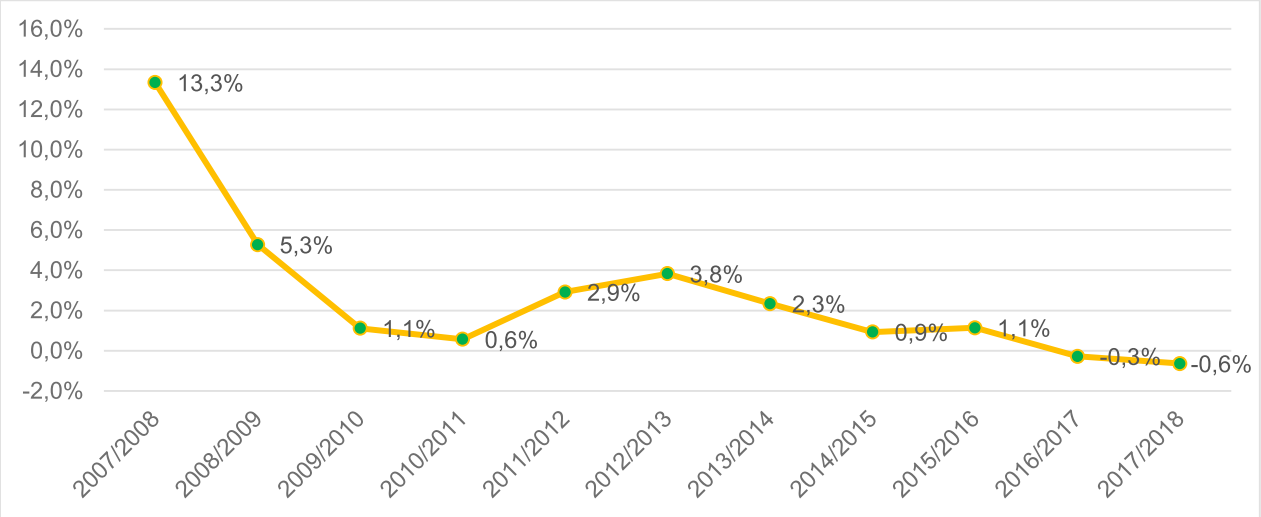


Figure 58: Limpopo's construction sector annual growth rate (constant 2010 prices), 2007 - 2018

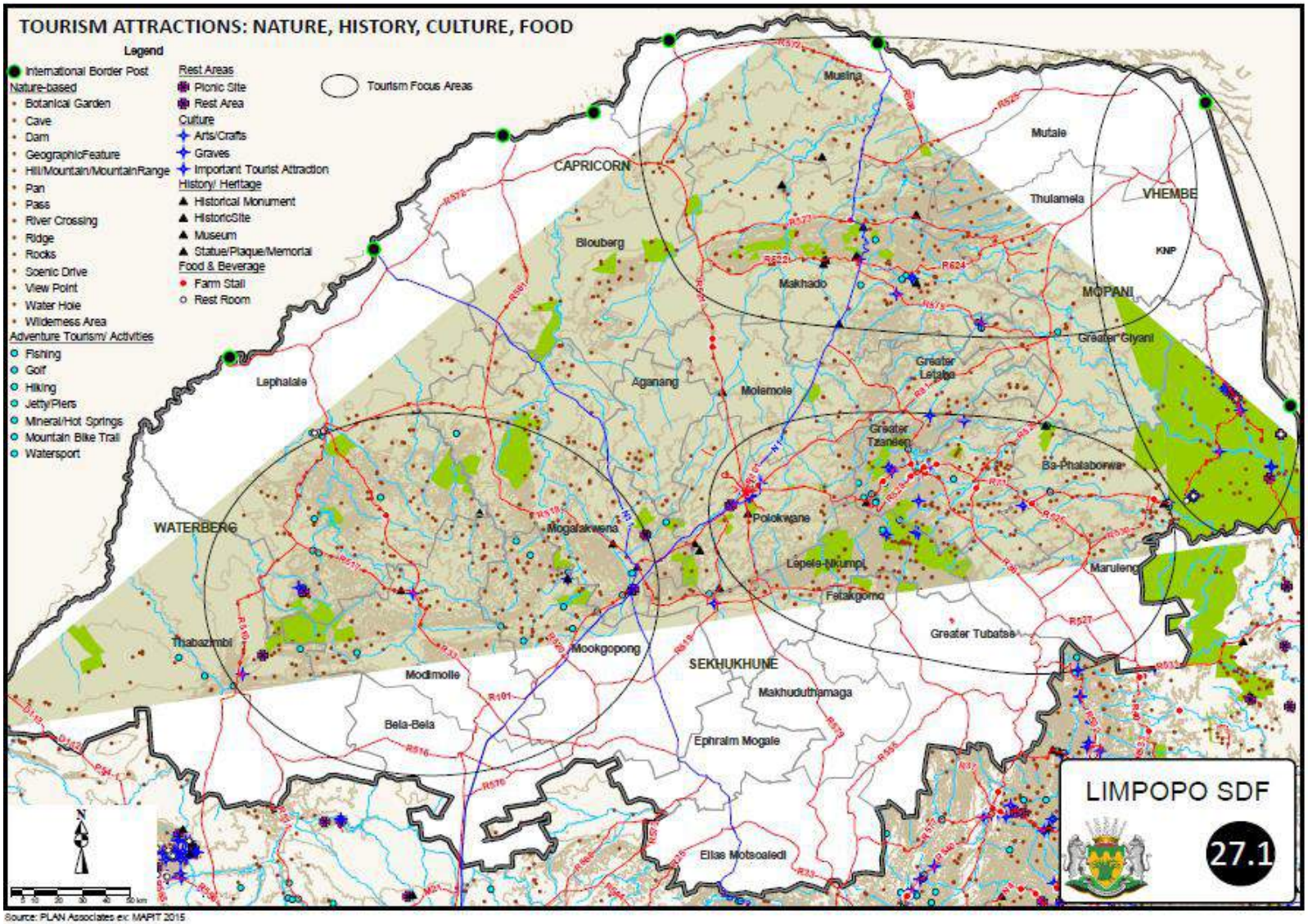
Source: StatsSA 2019

8.1.10 Tourism

With its scenic beauty, abundant wildlife and a plethora of nature-based opportunities, Limpopo is well-established as a destination for leisure and adventure travellers alike. The mountainous regions of the Drakensberg, Waterberg and Soutpansberg especially offer a comprehensive assortment of adventure-tourism activities, while the Kruger National Park and other game farms offer visitors a true wildlife experience.

The Province's rich cultural heritage includes the Mapungubwe World Heritage Site that forms part of the Mapungubwe Transfrontier Park, Ledingwe Cultural Village (Stellenboch Cultural Village), Lenao la Modimo (God's Foot Print) Makapan Valley World Heritage Site in Mogalakwena and the African Ivory Route.

There are a large number of accommodation establishments in the Province, including lodges and bed-and-breakfast enterprises. These, together with conference facilities in major towns and at game reserves, make up the business tourism component on offer. The wide variety of tourism-related attractions on offer in the Province are outlined in the figures below.



Source: PLAN Associates ex: MAPIT 2015

Figure 59: Tourism attractions in Limpopo: nature, history, culture and food

Source: Limpopo Spatial Development Framework (LSDF) (Limpopo Rural and Land Development, 2016)

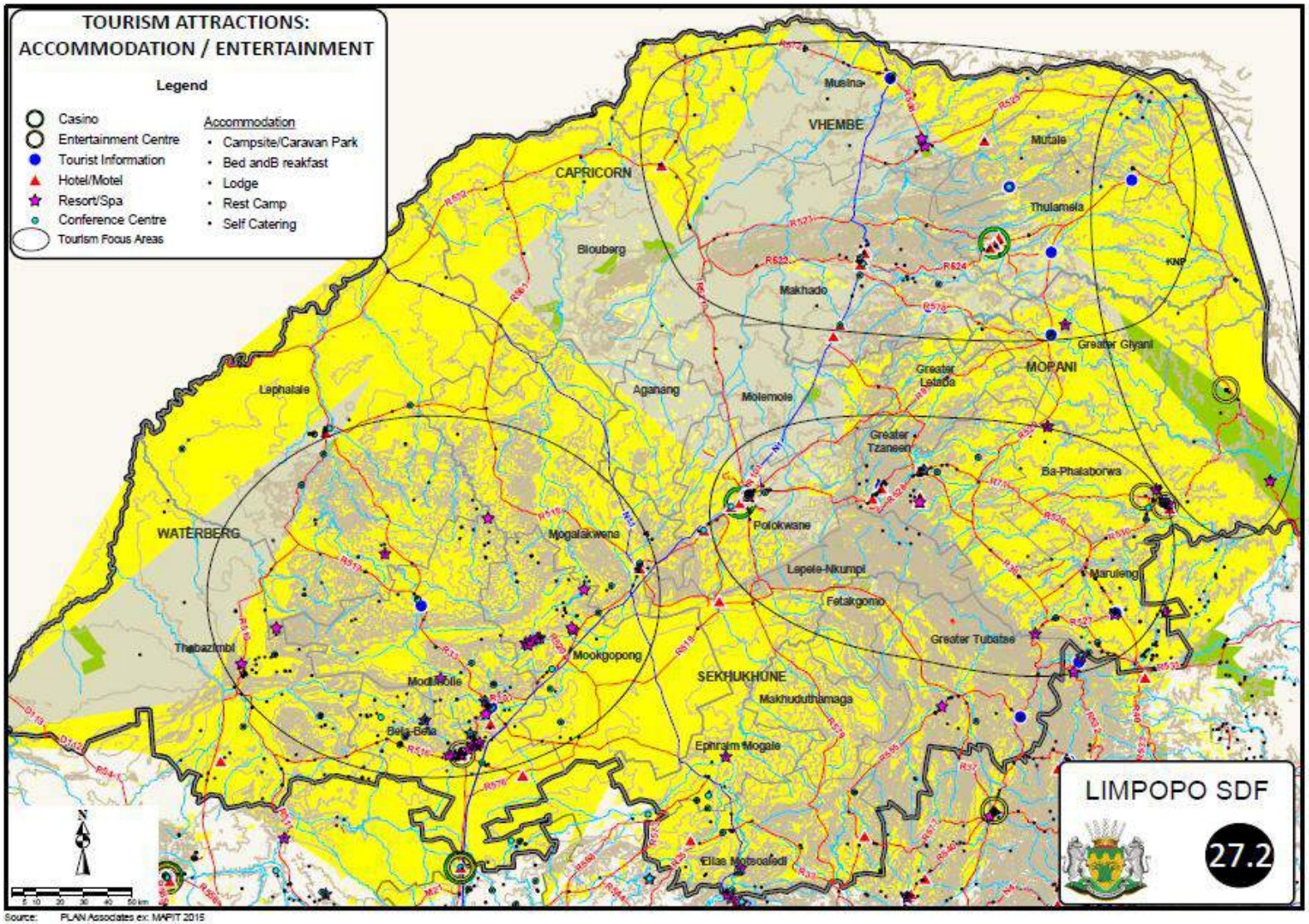


Figure 60: Tourism attractions in Limpopo: tourism focus areas

Source: Limpopo Spatial Development Framework (LSDF) (Limpopo Rural and Land Development, 2016)

From the above figures it is evident that tourism activity in the Province is concentrated in the following four primary areas:

- Waterberg Tourism Cluster between Bela Bela, Thabazimbi, Lephalale and Mogalakwena (popular as a weekend destination to Gauteng residents)
- Polokwane-Modjadjiskloof-Ba Phalaborwa-Hoedspruit/Maruleng Cluster between the N1 and the Kruger National Park in the central parts of Limpopo (weekend/longer duration destination)
- Soutpansberg-Vhembe Cluster in the far-northern parts of Limpopo (longer duration destination)
- Kruger National Park which is an internationally acclaimed tourism destination

Tourism plays a critical role in the provincial economy, which finds its competetive advantage in the rich biodiversity, wildlife offerings and cultural diversity of the Limpopo Province. As a tertiary sector, with strong linkages to transportation, other network industries, consumer retail and financial services, tourism's indirect economic contribution is substantial. Nationally, the sector accounts for 2.9% of GDP (8.6% indirect), supports over 725,000 jobs directly (1.49 million indirect) and accounts for 8.2% of total investment activity. Important to note is that inbound tourism generates some R82,5 billion in direct foreign spend (R126,7 billion total), contributing an equivalent of 9.2% of total national exports, while domestic tourist activity contributes a further R9,49 billion in direct expenditure (National Department Tourism Sector Recovery plan, 2020).

Over the last five years, Limpopo's tourist numbers increased, and it remains the leading province with regard to receiving the most domestic trips (3.3 million) in South Africa. The Province furthermore increased its international visitors on an annual basis, with a total of 2.2 million visitors recorded in 2018. The two tables below clearly reflect the growth in tourist numbers experienced.

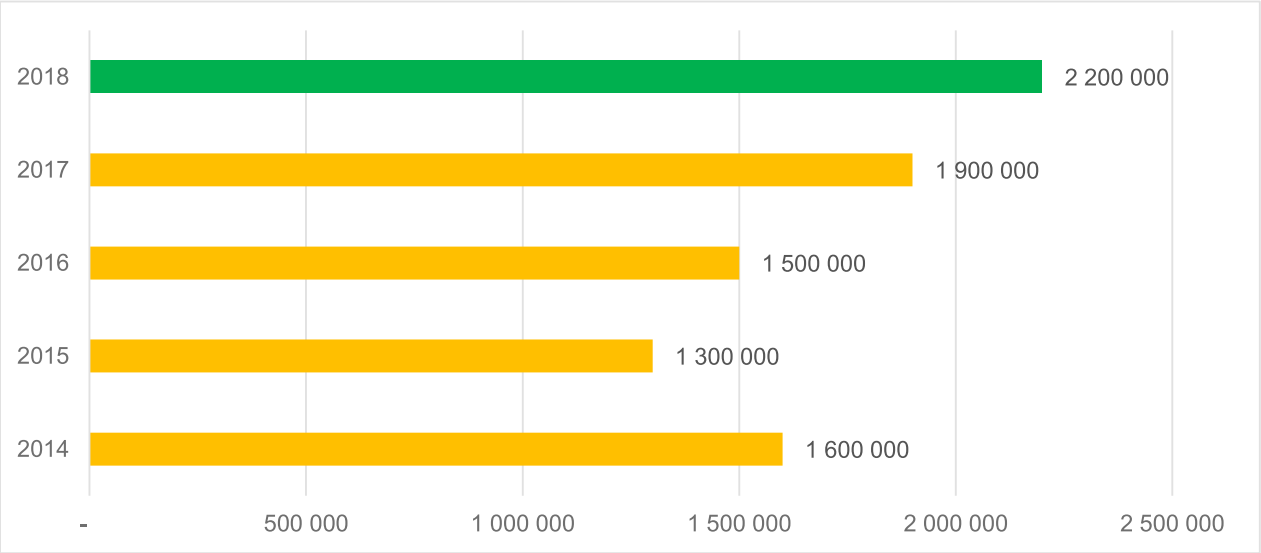


Figure 61: International tourist arrivals to Limpopo over 5 Years
Source: LEDET 2020

International visitors contributed R5,5 billion to the economy, and R7,9 million was earned from overnight stays (on average four nights per tourist) in 2018. Domestic trips contributed R4,7 billion to the economy.

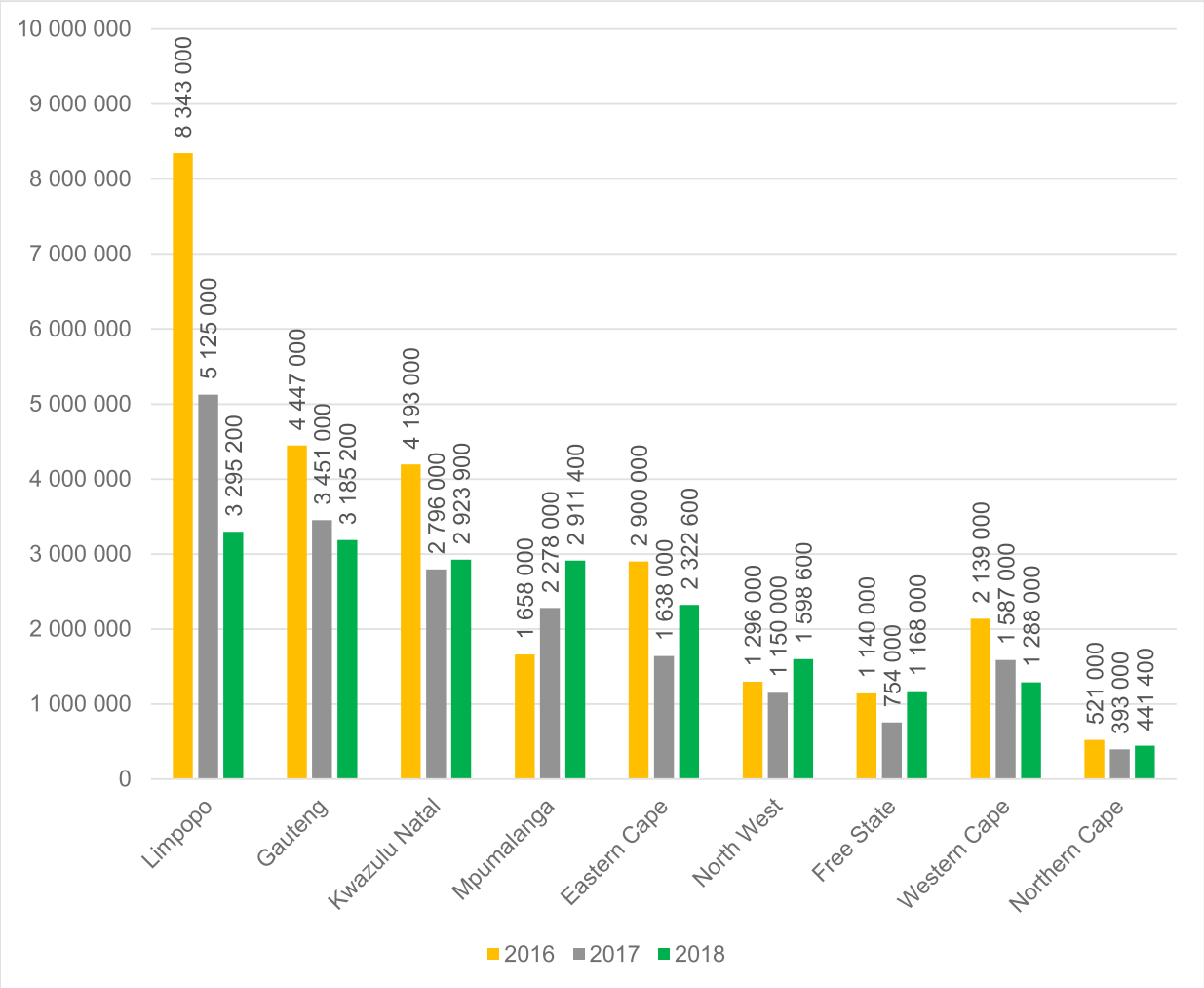


Figure 62: Domestic tourist arrivals, three-year comparison
Source: LEDET 2020

To accelerate growth in the tourism sector, the following five strategic pillars formed the building blocks of the revised National Tourism Sector Strategy (NTSS) 2020. These are:

- Effective marketing through implementing the 5-in-5 marketing strategy (five million tourists in five years)
- Facilitating ease of access through effective and efficient infrastructure
- Enhance the visitor experience
- Improve destination management practices
- Ensure broad-based benefits in the tourism sector

The Limpopo tourism value chain shows how all elements related to tourism work together to make the tourism sector possible within Limpopo. It indicates that Limpopo has a vast amount of attractions and activities which all fall into the different categories mentioned at the start of this section. The various types of accommodation offerings attract different kinds of tourists who also align with varying purposes for visiting Limpopo. The value chain thus clearly supports the main purposes for tourists travelling to Limpopo. The figure on the next page depicts a detailed value chain for Limpopo's tourism sector.

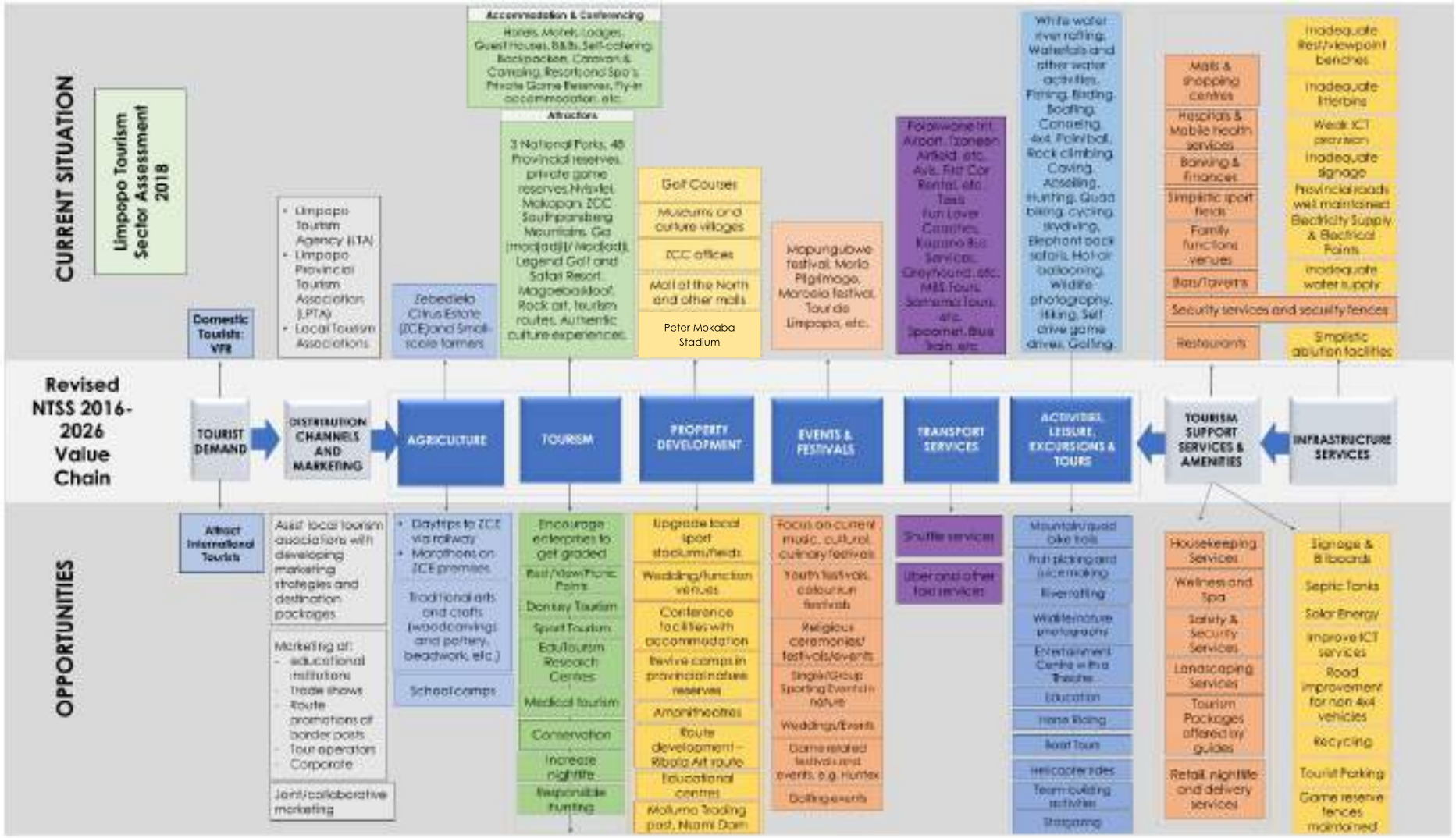


Figure 63: Limpopo tourism value chain

Source: Revised Limpopo Tourism Growth Strategy 2018, Urban-Econ 2018

The Limpopo Province is known for offering unique cultural and historical experiences that are celebrated through a number of cultural festivals and heritage celebrations. With the discovery of sediments, fossils, bones and artefacts, Limpopo has also become a popular destination for palaeontology, archaeology and San rock art found throughout the Province. Limpopo is furthermore known as a welcoming province, with its people playing an important part in the tourism industry. It is therefore not surprising that social tourism opportunities such as culture, culinary, educational and family gatherings provide opportunities for tourists to not only interact with one another, but also with the local cultures.

A noteworthy area is the continuous growth in hunting, and the Limpopo Province therefore acknowledges the hunting industry as one of the economic drivers that contributes to tourism growth. It is estimated that about 51% of Limpopo's wildlife ranching industry participates in ecotourism activities. The relationship between these activities should therefore be well managed and regulated to ensure that responsible practices and sustainable resource utilisation remains a priority to sustain Limpopo's competitive edge in the wildlife industry.

Sport tourism is growing and accelerating rapidly across the globe. To leverage on this trend, Limpopo started to position itself as a destination offering unique sporting opportunities that are closely linked with wildlife and wilderness settings. These include, amongst others, warrior races, trail running, mountain biking, cycling, etc. The utilisation of the Peter Mokaba Stadium for Premier Soccer League matches also positions the Province as an important sport host province for visitors.

Another sector with tremendous potential in Limpopo, is business tourism. Hosting meetings and conventions remains a strong segment in terms of contributing to the economy. The business and events cluster has further been identified to refocus the Limpopo Province as a business and events destination, catering primarily for medium to small conferences, meetings and exhibitions.

Incentive travel in particular, has been identified as a potential market that Limpopo can leverage. It also showcases the opportunity to expand the domestic market through offering short breakaways, for example to local food and wine festivals, and flower, fruit, music and cultural festivals, that are unique to Limpopo and provide a competitive advantage.

With the support of the private sector, community structures and local municipalities, the implementation of the Limpopo Tourism Growth Strategy can become a reality. To co-ordinate tourism in Limpopo, a Tourism Forum was established that comprises the Limpopo Department of Economic Development, Environment and Tourism (LEDET), the Limpopo Tourism Agency (LTA), SANPARKS, and other sectoral departments and agencies that are playing an important enabling role in support of tourism development in Limpopo. These departments and agencies are, for example, the Department of Sports, Arts and Culture, the Department of Transport and Community Safety, the South African National Roads Agency SOC Limited (SANRAL), the Roads Agency Limpopo (RAL), and district and local municpalities.

The private tourism sector is organised under the Limpopo Provincial Tourism Association that comprises representatives from the district and local tourism associations. Currently, Limpopo has 13 local tourism associations registered. An active Women in Tourism (WIT) chapter is also in place, with regular activities and meetings held to empower women-owned businesses in the Limpopo Province.

Ensuring that the provincial Tourism Growth Strategy remains aligned with the NTSS, the department revised the Limpopo Tourism Growth Strategy in 2018. This resulted in six tourism clusters imbedded in the mega-conservation cluster, which depicts the comparative advantage of Limpopo as a tourist destination. These tourism clusters are:

Table 23: Description of the six Limpopo tourism clusters

Tourism Cluster	Description
Family and Recreation cluster	This cluster caters for family groups seeking to break away for holidays, travelling to attend social gatherings e.g. weddings and funerals. Recreational offerings should therefore cater for all in the family group. Tourism leisure resorts and camping facilities that cater for large and small groups are utilised mainly by this market.
Business and Events cluster	The business and events cluster has been identified to refocus Limpopo as a business and events destination catering for mainly medium to small conferences, meetings and exhibitions. Incentive travel in particular has been identified as a potential market Limpopo can leverage from. This cluster furthermore showcases the opportunity to expand the domestic market through offering short breakaways to, for example, local food and wine festivals, and flower, fruit, music and cultural festivals unique to Limpopo.
Safari and Hunting cluster	The safari and hunting cluster was identified in acknowledgement that the hunting industry is one of the economic drivers in Limpopo that contributes to tourism growth. It furthermore plays an important role in the conservation and sustainable utilisation of wildlife, as well as providing a number of opportunities towards transforming the game industry. The expansion of this market towards other forms of tourism will be the main focus.
Sport and Wildlife cluster	Sport tourism is one of the growing tourism sectors, and to leverage from this trend, the sport and wildlife cluster will focus on unique sporting opportunities closely linked with wildlife and wilderness settings. This will include, for example, warrior races, trail running, mountain biking, cycling, etc.
Cultural and Heritage cluster	Limpopo's rural landscape presents unique opportunities to showcase its diverse cultural and heritage offerings. Tourist demand for authentic cultural experiences linked with wildlife offerings is growing. This cluster also provides an opportunity for Limpopo to leverage from its World Heritage Sites that were declared mainly due to its unique cultural landscapes, historical origins and linkages into southern Africa.
Special Interest cluster	The special interest cluster represents key product offerings that are growing e.g. birding tourism, adventure tourism, angling tourism, medical tourism, religious tourism and geo-tourism. This cluster assists in monitoring trends in certain niche markets and identifying potential gaps in the market that have potential for further development.

Source: Revised Limpopo Tourism Growth Strategy 2018

8.1.10.1 Critical enabling factors

Within the strategy, the following factors were identified as critical enabling factors required to further grow the tourism sector in the Limpopo Province:

The following factors were identified in the Revised Limpopo Tourism Growth Strategy 2018 and the Limpopo Tourism Sector Recovery Plan 2020 as critical enabling factors required to further grow the tourism sector in the Limpopo Province:

- **Conservation of natural and the cultural environment (mega conservation areas):** The impact of developments that has the potential to change the character of the mega conservation areas in Limpopo (national parks, biosphere reserves, provincial nature reserves, heritage sites and transfrontier conservation areas) should be controlled and managed. Proper land use and spatial plans that aim to sustain the environment in and around these mega conservation areas must be developed, applied and enforced on local, provincial and national level.
- **Marketing:** Applicable brand management, an updated database of tourism assets, products, services and resources, continued market research and responsible messaging and information management, are seen as critical marketing considerations.
- **Infrastructure and accessibility:** The provincial heritage icons and cultural settings are mainly found in the rural parts of Limpopo, as well as in the Mapungubwe National Park, Marakele National Park and the northern parts of the Kruger National Park. To unlock these areas and routes as tourist destinations, the current road network requires significant attention. LEDET also commenced with a rural tourism/ township tourism initiative that will focus on home stays and route development. Furthermore, efficient border control

and clear signage to tourism destinations/sites are necessary. Potential airlift opportunities should also be investigated to increase accessibility.

- **Service standards and compliance:** Emphasis needs to be placed on tourism skills development, the grading of tourism establishments, the implementation of responsible tourism practices and the achievement of transformation targets.
- **Destination planning, development and management:** Provincial institutional arrangements need to be put in place for tourism, integration needs to exist between tourism plans and other sectoral and local/municipal development plans, safety and security aspects impacting on tourism needs to be managed, research needs to be conducted that enables informed decision-making, and ethical and responsible practices need to be applied in the tourism industry.
- **Access to affordable and quality standard accommodation for the growing domestic market to increase the length of stay:** The commercialisation of state-owned properties to enhance tourism, especially in the nature reserves, should be prioritised.
- **Safety and security:** The safety of tourists travelling to Limpopo should serve as an important agenda point on the relevant forums. A large number of international tourists visiting Limpopo are self-drive tourists who are increasingly exploring the rural and cultural offerings of the Province. It is a growing market that Limpopo can benefit from. Effective safety measures and awareness programmes should be put in place. The Province commenced the establishment of a Limpopo Tourism Safety Forum, which will include all critical stakeholders, during 2019.
- **Technological revolution:** Marketing platforms require constant updates and wildlife destinations require internet/WIFI connectivity. This remains a serious challenge and has a tremendous impact on the growth of tourism. It is therefore critical that access to internet connectivity especially in remote destinations, is facilitated.

In addition to the above, the following critical success factors have been identified during the Industry Engagement Workshop for the tourism sector, which was convened on 26 October 2020, as part of the LDP formulation process:

- **Targeted government support:** Creation of collaboration and skills development opportunities and informed decision-making based on recent/updated data from the tourism sector
- **Sufficient resources to ensure successful implementation:** Sufficient financial resources need to be secured to ensure implementation, together with a robust implementation plan
- **Follow an asset-based approach:** Look at organisations that have already developed implementation models that have proven to be flexible, adaptable and scalable, and consider what already exists in the Province in terms of value chains, assets, etc., and move forward from there.

8.1.10.2 Opportunities and interventions

More than 8 million international tourists visited the province between 2014 and 2018. However, any hopes of maintaining the positive increase in visitor numbers recorded in recent years had to be put aside as a result of the COVID-19 pandemic which resulted in the declaration of a National State of Disaster in March 2020. The global pandemic has had, and still is having, far-reaching impacts on the national economy, but the tourism sector in particular has been severely impacted in terms of the generation of value, employment, domestic and international movements, sectoral linkages, cost servicing ability, ability to generate foreign reserves, as well as other variables in the global tourism value chain.

The Tourism Sector Recovery Plan Covid-19 Response dated August 2020 was formulated in response to the devastating impacts of COVID-19 on the tourism industry, and proposes a series of measures to protect and rejuvenate supply, re-ignite demand and strengthen enabling capability of the sector. These collective actions are projected to preserve some R189 billion of value, helping the sector to recover, and positioning the sector for long-term sustainable growth. Despite our significant tourism base and the fact that South Africa is one of the world's most popular long-haul destinations, there is widespread agreement that tourism in South Africa (and by implication Limpopo) has not reached its full potential and has the prospect of accelerating the economic recovery in the post COVID-19 environment.

The Province has reported the least COVID-19 cases in the country, which is a positive indicator that can assist in attracting tourists.

In terms of the plan, three strategic themes are central to South Africa's recovery: re-igniting demand, rejuvenating supply and strengthening enabling capability. Under these themes, ten strategic recommendations, as outlined in the figure below, have been proposed, along with specific actions, timeframes and accountabilities.

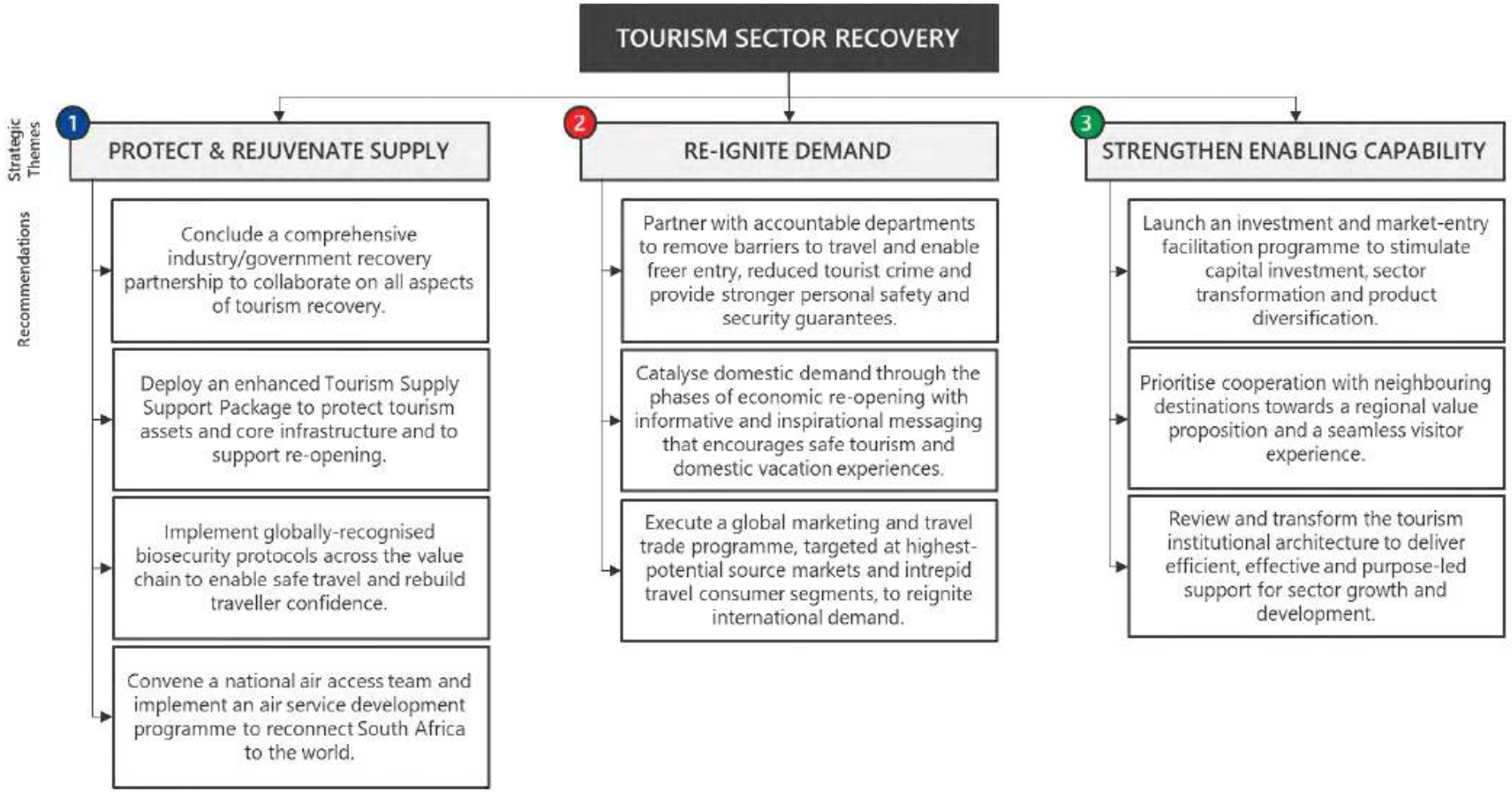


Figure 64: Strategic recommendations to facilitate tourism sector recovery

Source: Tourism Sector Recovery Plan Covid-19 Response, 2020

Based on the latest outbreak of the COVID-19 pandemic, and subsequent developments that impacted on the tourism sector, the United Nations World Tourism Organisation (UNWTO) estimates that the crisis could lead to an annual decline of between 60% and 80%, when compared to 2019 figures. This could be a USD80 billion loss in exports that will place millions of livelihoods at risk.

Within the South African context, the estimated impact has been confirmed, and studies have revealed that prolonged travel restrictions will have a devastating impact on the survival of tourism businesses. It is forecast that the loss of output for the sector, to the end of 2022, will be R411 billion. This includes the loss of 438,000 jobs in 2020 alone (SAT, 2020; SSA, 2020). Numerous contact sessions with the private sector confirmed that many, especially SMMEs, will not be able to survive beyond three months if government does not extend relief funding in some form. It is therefore anticipated that without further support, the pandemic crisis risks will become an infrastructure crisis (supply), while a slow re-entry will constrain South Africa's ability to outcompete in a hyper-competitive recovery market (demand).

Taking the lead from the national tourism sector recovery plan, South African Tourism (SAT) webinars, survey results and industry discussions amongst several government and private sector stakeholders in the tourism industry, a framework towards a tourism recovery plan for Limpopo has been drafted. From most deliberations it became clear that the reopening of the sector is critical to avoid further job losses. The industry is also most likely to be led by domestic travel, followed by regional, and lastly by international travel. It is furthermore recognised that estimating the time for a rebound cannot be predicted.

Following the framework of the National Recovery Plan presented above, the main focus areas that will drive the Limpopo Tourism Plan, is to **protect and maintain, refocus, and build and sustain and to protect and maintain the provincial market share and tourism infrastructure.**

This includes actions in direct control of the Province, as well as those enabling factors and policies directed by the Minister of Tourism and other external stakeholders, in support of recovering the sector.

Interventions critical for growth in the next five-year planning cycle, to ensure the protection and maintenance of tourism, are:

- Focusing on growing the domestic tourism market
- Safety and security aspects with specific reference to the implementation of COVID -19 health protocols
- Public infrastructure to be upgraded and maintained, e.g. the provincial road network that provides access to rural tourism destinations, products, services, as well as adequate signage
- Strengthening technological advancement, e.g. internet access across the Province
- Pricing and affordability of tourism products

Key actions as part of the Limpopo Tourism Sector Recovery Plan include:

- De-risking the tourism industry
- Provision and facilitation of tourism supply support packages (financial and non-financial support)
- Awareness on safety and other operational COVID protocols
- Maintain Limpopo Brand and market recovery messaging

Refocus the strategy

The playing field changed drastically as a result of the COVID-19 pandemic, and developmental and marketing actions require attention by all stakeholders on municipal, provincial and national level. Effective and continuous communication between the public and private sector is critical, as well as access to information and programmes, that will enable:

- Improved general tourism awareness
- Tourism skills development

- Tourism business support and marketing opportunities
- Access to funding
- Broad-based benefits
- Implementation of reprioritised projects and programmes under each tourism cluster

Key actions as part of the Limpopo Tourism Sector Recovery Plan include:

- Develop and maintain industry/government collaborative partnerships
- Awareness and informative inspirational messaging that encourages safe tourism
- Research and information
- Tourism supply and upskilling support and development programme
- Robust and re-focused Tourism Marketing strategy
- Tourism safety and operational protocols developed and rolled in all tourism establishments
- Develop a revised destination investment and market-entry plan
- Protecting and re-positioning of tourism developments in state owned nature reserves
- Re-focus on sustainable tourism product development and transformation in the sector

Build and sustain

The aim of this area is to build on an aggressive domestic marketing drive and destination development plan to sustain the Province's competitive advantage in the market. Furthermore, attention must be paid to sustainable community tourism projects, with an emphasis on long-term SMME and co-operative tourism product support. Further emphasis should also be given to compliance monitoring and adhering to tourism policy and regulatory requirements, to ensure that high quality tourism products and services are sustained.

Feedback from industry stakeholders during the Industry Engagement Workshop for the tourism sector which was convened on 26 October 2020 as part of the LDP formulation process confirmed the opportunities and recommendations put forward above. Stakeholders indicated that there needs to be a focus on small business support in tourism, specifically skills development and capacity building for business owners, and the implementation of initiatives aimed at easing doing business in the Province.

The role of innovation during the engagement was highlighted as paramount, and the general consensus was that the COVID-19 pandemic can be used as opportunity to implement innovative approaches to tourism development, mobilise small businesses to ensure economic recovery, and place a greater emphasis on strengthening regional and domestic tourism until international tourism is open again.

In addition to the above, it was remarked that the tourism sector has close linkages to many other sectors, specifically manufacturing and agriculture. It is therefore important to consider how the overall value chain can be strengthened and refined to ensure mutually beneficial impacts across all sectors. Stakeholders also identified the opportunities presented by the plight of women and the youth in the Province as far as secure livelihoods are concerned. An opportunity therefore exists to focus skills development initiatives on high-potential females and youth to ensure that creative talent is retained in the Province, and not lost to larger urban centres such as Gauteng.

Limpopo's strategic location as the gateway to Africa presents numerous opportunities linked to the regional tourism and the exporting of tourism goods, and an opportunity exists to further tap into markets and promote exports. The Musina-Makhado Special Economic Zone (SEZ) could potentially be used as manufacturing and skills hub for agriculture and tourism economic activities for the province.

The sustainability of the tourism sector is currently threatened by the instability in electricity provision, a challenge which affects the entire country. The mitigate the negative impacts of load shedding on the sector, an opportunity exists for alternative and renewable energy development. Lastly, it was raised that Limpopo needs to set itself apart from the other Provinces in South Africa (of which many have strong tourism sectors).

Potential differentiators could be unique local assets, high levels of entrepreneurial drive, innovative technologies and a strong tourism skills base.

Key actions as part of the Limpopo Tourism Sector Recovery Plan include:

- Compliance monitoring and enforcement (safety standard compliance monitoring within the tourism industry)
- Monitor pricing and affordability of tourism products and services
- Refocus on tourism business registration and quality assurance
- Long term SMME and co-operative tourism product support
- Adapt and refocus tourism skills development
- Continued market research
- Continued joint marketing to encourage travel
- Budget resort initiative and commercialisation of provincial-owned tourism products on nature reserves
- Enabling Infrastructure development e.g. road network.

Priority recovery interventions

The following priority recovery interventions have been identified for each of the six Limpopo tourism clusters:

Table 24: Priority recovery interventions for each of the six Limpopo tourism clusters

Tourism Cluster	Priority Intervention
Family and Recreation cluster	• Focus on the domestic market with strong and encouraging messaging to travel again to Limpopo • Safety awareness campaign • Respond to changes in the domestic consumer preferences • Execute educational marketing programmes • Support domestic trade packaging itineraries and experiences that are safe and inspirational • Affordability of products and services to receive attention • Improve access and signage to destinations
Business and Events cluster	• Open business travel to critical customers • Share relevant information on all media platforms and expand the digital marketing efforts e.g. focusing on virtual tours, interactive experiences, sharing information to current and new markets emerging in partnership with the industry. • Position Limpopo's short breakaway destinations and opportunities to attend small and local events e.g. for example, local food and wine festivals, and flower, fruit, music and cultural festivals unique to Limpopo • Develop virtual event experiences by showcasing previous events hosted in Limpopo
Safari and Hunting cluster	• Promote responsible hunting practices and wildlife interactions • Liaise with hunting associations to partner with, in respect of recovery strategies • Focus on domestic/local hunters • Expand the hunting market into other forms of tourism e.g. leisure, adventure and special interest travel
Sport and Wildlife cluster	• Create appetite for sport events in Limpopo • Leverage on wildlife element in sport tourism • Create new sport/wildlife opportunities and packages for new markets during recovery period
Cultural and Heritage cluster	• Create and market authentic experiences with low-density itineraries • Commence with local tourism, specifically day trips and weekend retreats • Develop virtual tours
Special Interest cluster	• Create and market authentic experiences with low-density itineraries • Commence with local tourism, specifically day trips and weekend retreats • Develop virtual tours

Source: Towards a Limpopo Tourism Sector Recovery Plan. Presentation: virtual local government peer learning network, 2 September 2020

8.1.11 Waste economy

According to the State of Waste Report (DEA, 2018), South Africa generated 23.1 million tonnes of municipal solid waste (MSW) in 2017. Limpopo contributed 8.4% or 1.94 million tonnes of MSW per annum. It is furthermore reported that only 22.9% of households in the Province have access to weekly waste collection services, primarily in urban areas (General Household Survey 2018), while 69.2% of households use their own refuse dump (primarily in rural areas) (StatsSA, 2019).

The state of waste management services in the Limpopo Province was therefore highlighted as an area that requires much improvement. However, it could be argued that the current situation presents economic opportunities, even as the public sector addresses service delivery challenges.

Waste separation at source recycling programmes have been initiated in Lephalale, which currently services 15% of residential, 95% of industrial and 90% of commercial premises, and in Polokwane, which currently services approximately 8% of residential, 15% of industrial and 6% of commercial premises (DEA, 2018).

Compliance is another area that requires intervention. The audit results of 2017 showed that 69% of licensed landfill sites in the Province are less than 50% compliant with the required national standards. Furthermore, less than 50% of facilities reported data into the South African Waste Information System (SAWIS) in 2016/17 (LEDET, 2016). The lack of adequate data presents a challenge for evidence-based development planning in the waste sector.

8.1.11.1 Opportunities

The following opportunities were identified in the waste economy in the Limpopo Province:

- SMME development to improve waste collection coverage
- Packa-ching entrepreneur development to support recycling (https://www.polyco.co.za/packa-ching/)
- Increasing the number of recycling facilities to support the development of a recycling economy
- Processing of waste tyres (feasibility study required to determine the best technology option)
- Slag generated at metallurgical smelters could be used in road surfacing and as aggregates in construction
- Organic waste could be composted (open-windrow or in-vessel systems) to be sold as compost or soil enhancers, and can also potentially be converted into biogas for local energy supply

8.1.12 Regional integration

Currently, there is no complementarity between the basket of goods produced by the Limpopo Province and that produced by African countries, such as those of the Southern African Development Community (SADC). Primary goods (agricultural and mineral products in particular) dominate the export basket. Limpopo's trade and investment linkage to the SADC and other African countries, or regional economic communities, is currently statistically insignificant.

However, this situation can be changed, but only when the Limpopo Province develops its value chain to manufacture finished goods. This will create the complementarity required, as Limpopo's production can also absorb African primary produce and this will subsequently develop regional value chains. Due to international trade posts and cross-border infrastructure, there is much potential. Furthermore, both SADC and the Africa Tripartite Free Trade Areas provide for a duty-free trade, which is a powerful advantage that Limpopo can tap into.

Limpopo should also take advantage of the African Continental Free Trade Agreement signed by African Union (AU) countries.

8.1.13 Progression towards unlocking opportunities of the Fourth Industrial Revolution

Knowledge is more important today than ever before, as the twin forces of globalisation and technological advances are spurring an ongoing knowledge revolution. This revolution manifests itself in many ways, such as closer links between science and technology (S&T), the greater importance of innovation for economic growth and competitiveness, the increased importance of education and lifelong learning, and more investment in intangibles such as research and development (R&D), software, and education. The latter is even greater than investment in fixed capital. At the same time, a revolution in information and communications technology (ICT) is increasing worldwide interdependency and connectivity.

Information Box: What is the Fourth Industrial Revolution (4IR)?

The Fourth Industrial Revolution blurs the boundaries between the physical, digital and biological worlds. The main drivers for change in the 4IR are high-speed mobile internet, artificial intelligence, big data analytics, cloud technologies, biotechnology, nanotechnology, the internet of things (IoT), robotics, machine learning, blockchain technology, virtual and augmented reality, additive manufacturing, and quantum computing, amongst many others.

All these elements are transforming business models, production processes, products, markets, services, trading systems, and even whole industries and entire economies.

Research has been conducted to determine whether South Africa, and the Limpopo Province in particular, are ready for the 4IR.

The following components are indicators of 4IR-readiness:

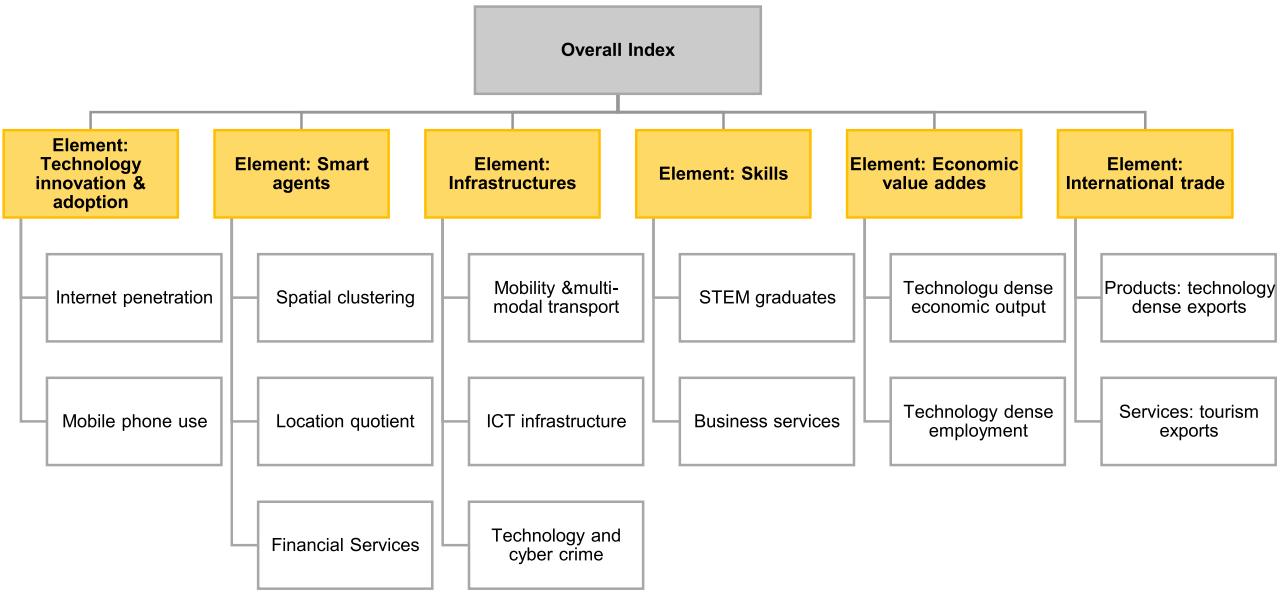


Figure 65: Metrics to measure 4IR-readiness
Source: Office of the Premier, The 4th Industrial Revolution Provincial Position Paper 2020

In short, it was found that neither the country, nor the Province, are ready for 4IR. There is room for improvement across all the indicators, but the lowest scores were obtained in the following categories: smart agents, skills, infrastructure, and economic value added.

In 2018, less than 2% of households in Limpopo reportedly had internet access at home (Office of the Premier, The 4th Industrial Revolution Provincial Position Paper 2020). A lack of access to network or affordable data, especially in rural communities, leads to a lack of access to information and digital services such as banking, healthcare, education, social services, as well as economic opportunities. A lack of ICT infrastructure to enable access to the digital world, and a lack of technical and managerial skills to operate, maintain and manage such infrastructure, are major weaknesses in the development of the sector.

The Province made good strides in achieving the ICT strategies that were set for the 5th Term of Administration. The implementation of broadband telecommunications infrastructure is under way. The map below provides an indication of the 50 sites that have been connected to broadband network to date. There are plans in place to expand the network in all districts in the Province, including fibre, microwave masts and broadband (to enable 5G). Partnership have also been created with the private sector, such as mining houses, for connectivity in villages and townships.

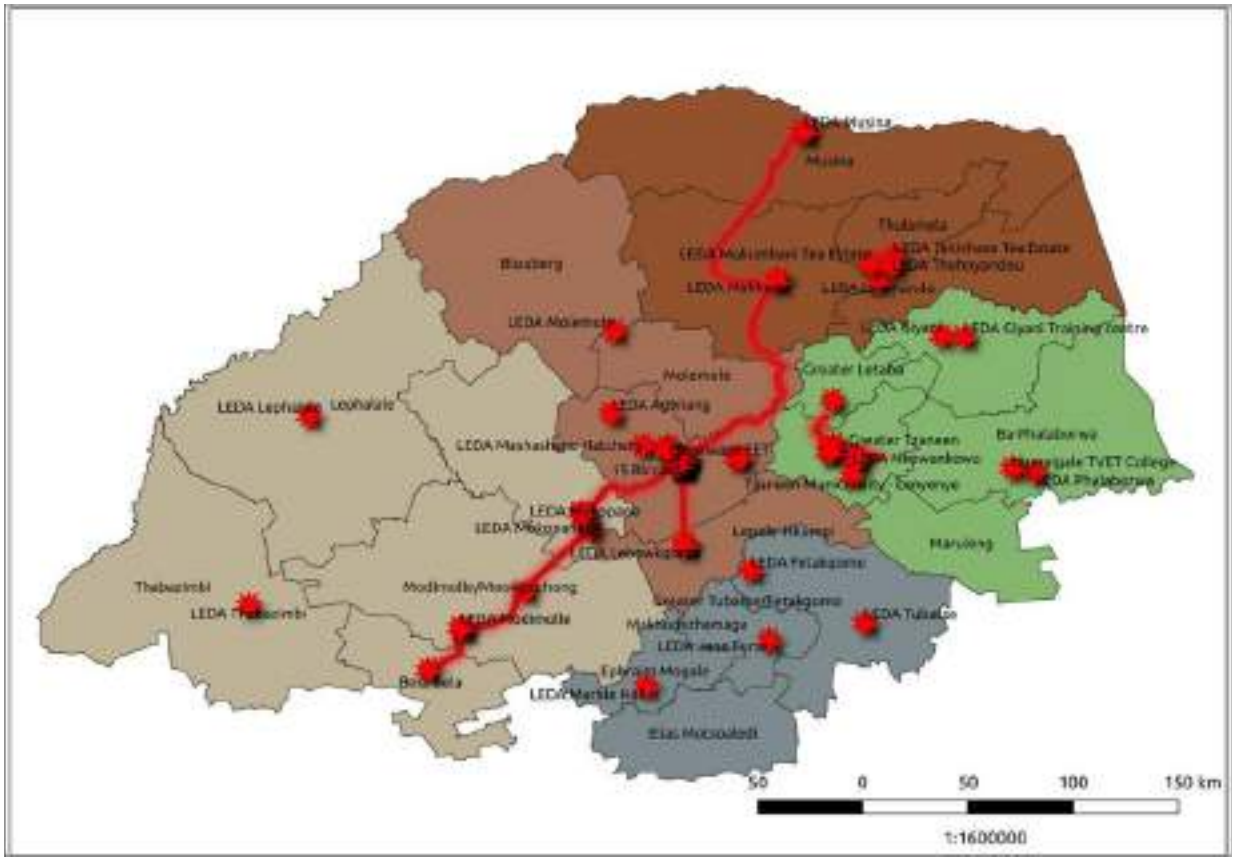


Figure 66: Limpopo broadband network connected sites

Source: Office of the Premier, The 4th Industrial Revolution Provincial Position Paper

4IR opportunities were identified in each of the economic sectors discussed above, and the social sectors discussed in the section that follows. Strongly coupled with the widespread adoption of 4IR technology in Limpopo, should be associated education and skills development programmes in both urban and rural areas, across all sectors, and with an emphasis on vulnerable groups and youth.

8.1.13.1 Opportunities

There is a plethora of opportunities to apply 4IR imperatives in the various economic sectors of Limpopo, as well as in environmental management, disaster management, urban management, and many more. A summary of identified opportunities is provided in each chapter of the LDP. It is noted that cybersecurity must be a priority and must be incorporated into overarching business models.

Key programmes of the provincial 4IR sector include the installation of telecommunications infrastructure and the establishment of the Limpopo Science and Technology Park (in the Capricorn District). There is opportunity to apply 4IR in the provincial SEZ, as well as in the smart cities that are envisaged.

8.1.13.2 Key areas to address

Infrastructure and Skills – Limpopo Connexion SOC Limited, has been established to implement a broadband network for the entire province, and to assist in training and equipping the local population with the requisite skills for the 4IR. The Province has also established the Limpopo Provincial Skills Academy (LIPSA) to upskill youth in this sector.

There is a need for an overarching strategy for the 4IR in Limpopo that is co-ordinated with the initiatives of the national government. A Presidential Commission on the Fourth Industrial Revolution has already been established and has produced a report with recommendations and a way forward.

8.2 Social sector

8.2.1 Education

The National Development Plan 2012 prioritises the development of children's capabilities from birth to school-going age.

8.2.1.1 Pre-school education

Early childhood education is an approach applied to provide children with physical, socio-emotional, cognitive and motor development, from birth to school-going age. It provides one service, or form of support, or a collection of services and supports, to a child to promote early childhood development (ECD). ECD can be centre-based or offered at child and youth centres. Grade R has already been introduced in many primary schools. The expansion of support of ECD for children aged 4-5, is believed to enhance school readiness. To realise the education sector's Medium Term Strategic Framework (MTSF) outcome, to expand access to pre-school and other ECD services, the Department of Social Development are subsidising programmes and centres through equitable share and ECD conditional grants. The plan is also to introduce Grade RR in the schooling system and to make Grade R compulsory.

The Limpopo Department of Education conducted a study to consider levels of access in the Province in 2016. It was found that several towns are underserved.

8.2.1.2 Primary and secondary school education

Access to educational opportunities is a human right, and it is compulsory for children of 15 years and younger to attend school. Quality education encourages technology shifts and innovation that are necessary to solve present-day challenges. Through education, individuals are prepared for future engagement in the labour market, which directly affects their quality of life, as well as the economy of the country.

Figure 68 and Figure 69 reflect the focus areas of unserved demand (considering distance norms and maximum classrooms sizes) for primary and secondary schools respectively. It was found that rural settlement areas require many schools to comply with the distance standards for the Department of Education (within a 5km range). Often the unserved demand can be related to several towns and settlements that are also reflecting population growth due to immigration. The department is implementing a merging programme to streamline education at schools where it is unfeasible.

School attendance

School attendance in the Limpopo Province remained at 92%, as compared to 88% nationally. As stated above, ECD is one of the focus areas for ensuring that there is an improvement in education. Undoubtedly, children who pass through ECD are exposed to a learning environment at an earlier stage in life, and learning difficulties can thus be identified and addressed timeously, resulting in better educational performance.

Additional support

As a result of high poverty levels, some children still spend the day at school without a meal. This encumbers learning and concentration levels. It is for this reason that the government introduced school feeding programmes, with the aim of enhancing learning capacity. In 2011, these programmes were further expanded to Quintile 3 secondary schools. The percentage of learners who benefit from the programme has grown significantly since 2009, with 75% in Limpopo and 65.6% nationally. Limpopo's figure appreciated by another 18.2% between 2009 and 2012.

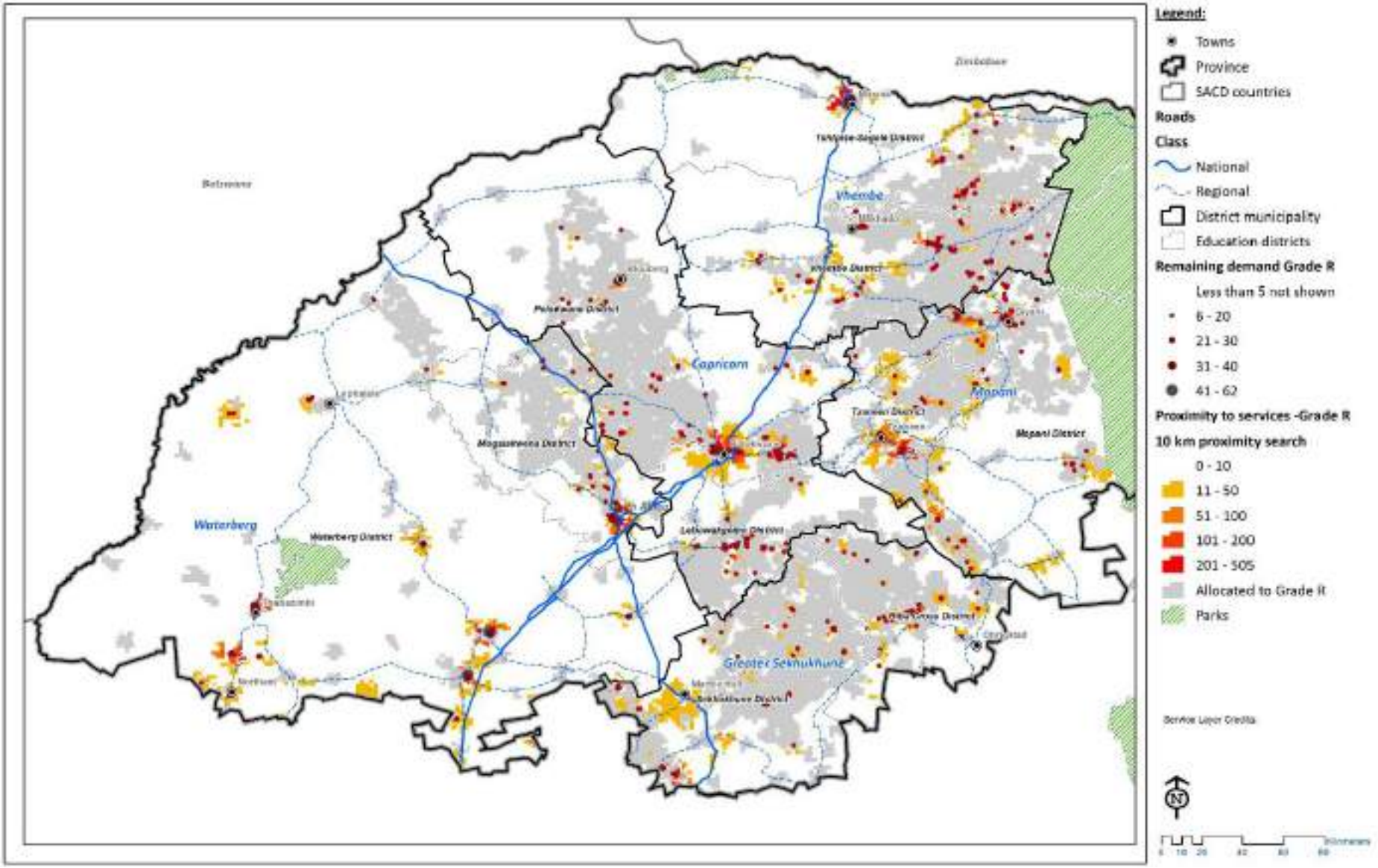


Figure 67: Limpopo: Grade R - areas with the largest unserved Grade R demand (2011) combined with proximity calculations

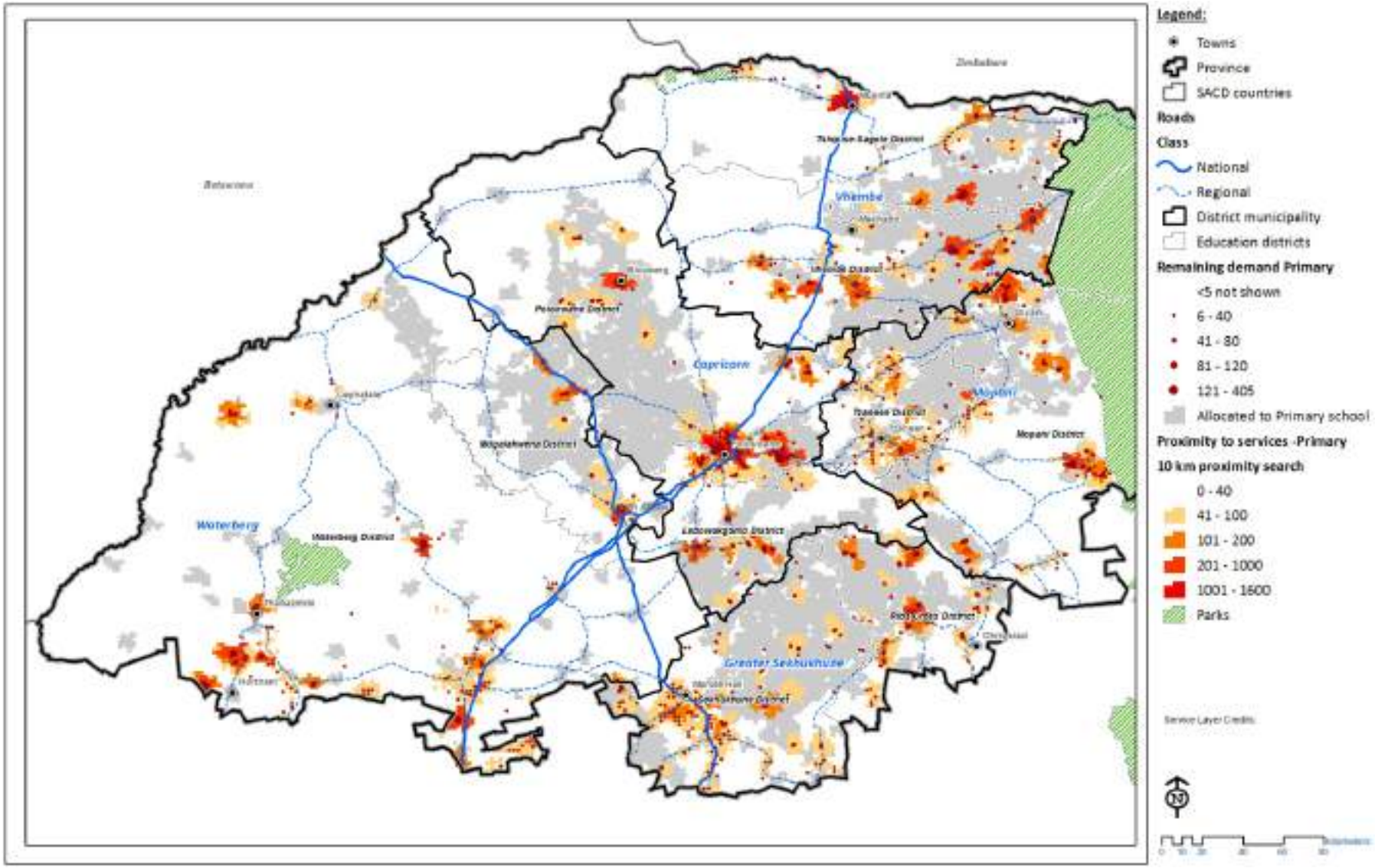


Figure 68: Limpopo: primary school - areas with the largest unserved demand (2011) combined with proximity calculations

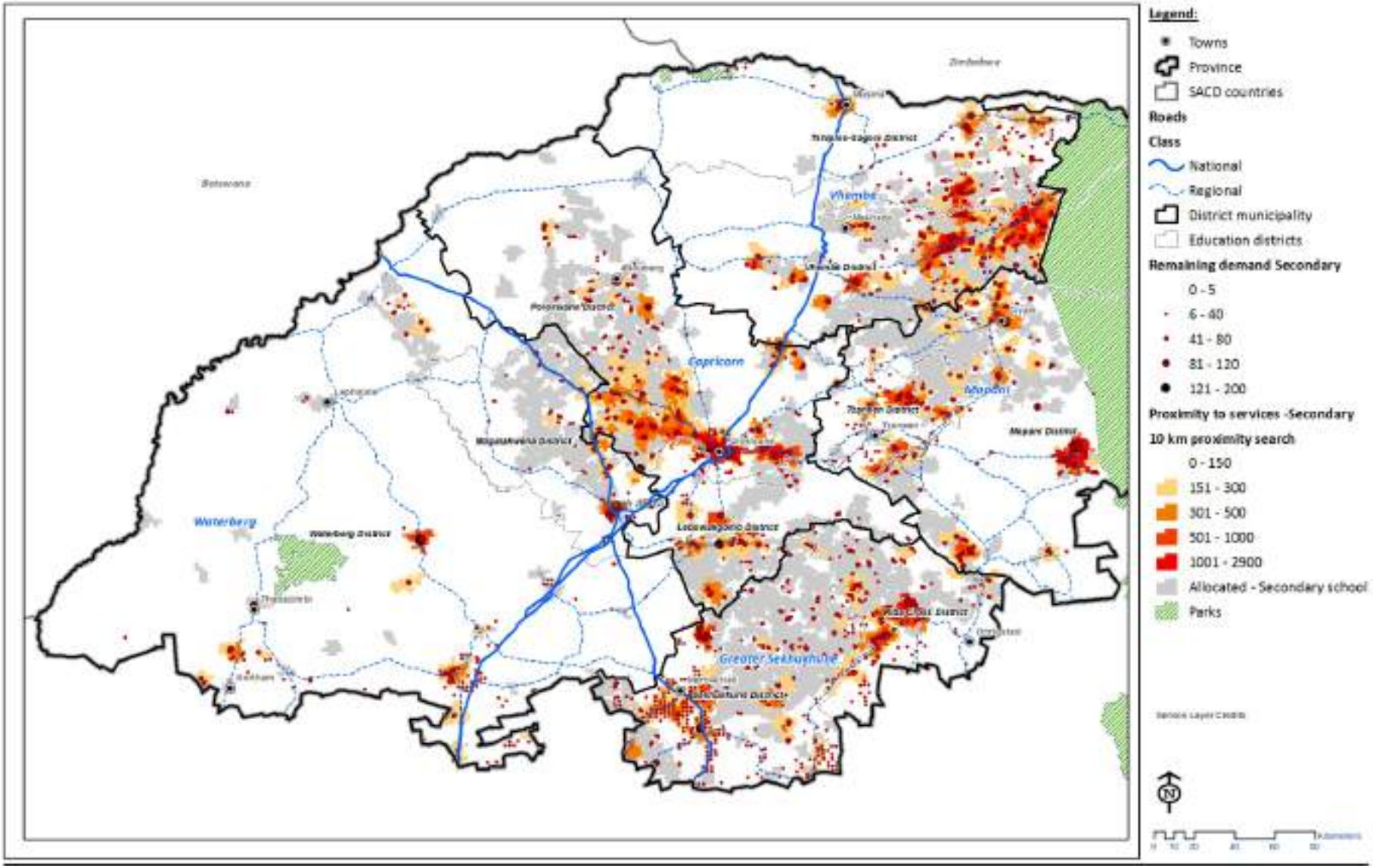


Figure 69: Limpopo: secondary school – areas with the largest unserved demand (2011) combined with proximity calculations

Impact of remote learning

Even though technological advances make remote education a possibility, as seen amid the current COVID-19 pandemic, it is unlikely that this model of education will replace physical school facilities in the short to medium term. Physical school infrastructure will remain an important element of education. It provides a space for education and learning that is especially valuable in poorer rural communities who are not able to benefit from technological advances, or where the school then becomes a hub for learners to access technologies to enhance their learning experience. Schools are often also the locations for other social support and outreach programmes, such as feeding schemes and health programmes. As such, physical school infrastructure remains critical.

Asset condition for schools, offices and other facilities

During the period 2014 to 2016, the Limpopo Department of Education initiated the development of an Immovable Asset Management System to reflect the state of all its assets. Through an intensive asset audit process, all schools, offices and other facilities were audited. Considering the total infrastructure, 90.3% reflected a good and fair condition, 2.2% an inadequate condition, 1.2% a bad condition, and 5.8% a very bad condition. This meant that about 7% of buildings would have to be rehabilitated or replaced. Normal wear and tear could be attributed to 28% of the causes of the deterioration of infrastructure, and 22% to a lack of maintenance.

Concerning, however, is the high level of deterioration that can be attributed to poor workmanship (9%) and unsuitable materials, technology or design (20%). Future investment in facilities should expand monitoring to ensure that design standards and acceptable materials are used. This could also impact on the need for architects, quantity surveyors and construction project managers who can provide a supervisory role. Another concerning influencing factor is the targeting and damage of school buildings during community protests (10%).

Implication of COVID-19 on school construction projects

The COVID-19 pandemic has affected planned school projects. The Limpopo Department of Education will not be able to implement the schools construction program for the 2019-2020 period. Sixteen projects will need to be retendered, according to the Infrastructure Cluster Plan of Action (Department of Public Works, Roads and Infrastructure, 2020). The Rivoni School for the visually impaired, is the only project to have commenced in this period. From an original list of 130 school projects, only seven projects are likely to commence in the last quarter of 2020. A further 49 are expected to go on tender for implementation in the 2021-2022 period. Additionally, the education infrastructure grant was reduced from R1,2 billion to R950 million, to finance COVID-related expenses.

Opportunities for, or through, 4IR:

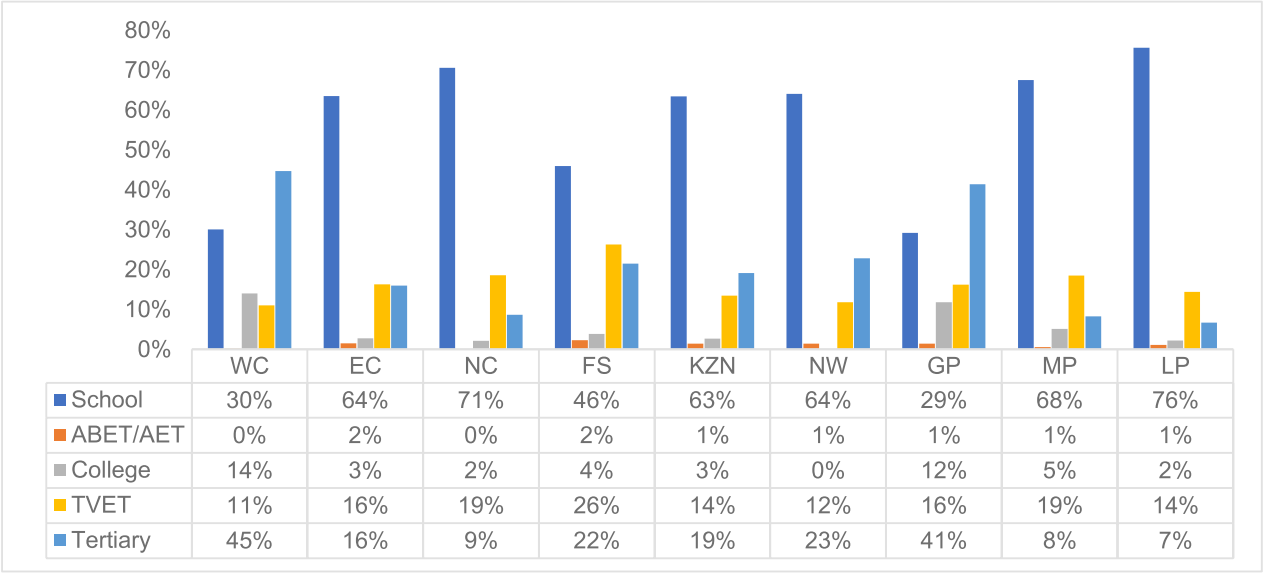
- Upskilling the existing workforce with 4IR technologies is critical and this should be linked to the 4IR technologies that are relevant first to the Province, and then to the nation
- Remote learning can be used to make high-quality education available in maths, science, and languages, and such systems do not necessarily have to be implemented down to pupil level, as classroom-level implementation reduces costs and may make the material better accessible
- e-Education content development, i.e. coding and robotics
- ICT accessibility for schools and communities: Rural schools in South Africa have limited internet connectivity, which is critical for modern education and school administration. The internet can improve the quality of education in many ways. It opens doorways to a wealth of information, knowledge and educational resources, increasing opportunities for learning in, and beyond, the classroom. Teachers use online materials to prepare lessons, and students to extend their range of learning. A limiting factor in the provision of internet to rural schools is access to network infrastructure of a bandwidth adequate to service the school needs. Most of the rural schools do not have access to any broadband infrastructure due to the costs associated and the poor return on investment for internet service provider. The South African Parliament in its report “Analysis of Basic Education on the ICT Rollout” reported that only eight percent of South African schools has broadband connectivity, and the majority of those that are connected have low bandwidth connections. This initiative seeks to leverage off of the existing networks and to establish broader ICT accessibility in schools, in Mokopane, Lephalale and Musina.

8.2.1.3 Post-school and skills gaps

The Limpopo Province has over 499 000 people with no schooling, and only 9.2% of the population have a higher education. It is estimated that poverty amongst graduates currently stands at 5% (Human Science Research Council). It was noted that this may be pointing at a lack of work readiness of graduates in the Province.

The White Paper describes the post-school system as comprising "all education and training provision for those who have completed school, those who did not complete their schooling, and those who never attended school." It then lists the range of institutions that are part of the post-school system. These include the 26 public universities; 50 public TVET colleges; 9 new community colleges (incorporating all the former Public Adult Learning Centres); private higher education institutions and colleges; a range of state-owned post-school institutions funded through other government departments responsible for mainly public sector training; the SETAs and the National Skills Fund (NSF); and regulatory bodies responsible for qualifications and quality assurance in the post-school system (SAQA and the QCs). The provincial status of enrolment at the above-mentioned educational institutions in 2018 is highlighted in Table 25 below.

Table 25: Limpopo: attendance of educational institutions among Born-free Millennials aged 19–24 years, by province, 2018



	WC	EC	NC	FS	KZN	NW	GP	MP	LP
School	30%	64%	71%	46%	63%	64%	29%	68%	76%
ABET/AET	0%	2%	0%	2%	1%	1%	1%	1%	1%
College	14%	3%	2%	4%	3%	0%	12%	5%	2%
TVET	11%	16%	19%	26%	14%	12%	16%	19%	14%
Tertiary	45%	16%	9%	22%	19%	23%	41%	8%	7%

Source: HRD Strategy

Limpopo had 6.7% of students who were enrolled for tertiary level and 14.4% for TVET college level.

Table 26: Public TVET colleges in the Limpopo Province

College name	Main campus	Other campuses
Lephalale TVET College	Polokwane	Senwabarwana and Seshego
Letaba TVET College	Lephalale	Modimolle
Mopani South East TVET College	Tzaneen	Maake and Giyani
Sekhukhune TVET College	Phalaborwa	Sir Val Duncan, Namakgale and Mošate Hotel School
Vhembe TVET College	CS Barlow, Limpopo	CN Phatudi, Burgersfort

College name	Main campus	Other campuses
Waterberg TVET College	Thengwe	Makhado, Makwarela (East), Mashamba (South), Mavhoi (Central), Tshisimani, Lebowakgomo, Mahwelereng, Thabazimbi (established 2015)

The Province has two public universities (the University of Limpopo and the University of Venda), and it has made strides in reducing the number of people who are illiterate, from 557,000 in 2008, to 433,000 in 2016, representing a decline of 22%.

The following higher education challenges were noted:

- TVET colleges and universities are concerned with the quality of education/ skills that learners have once they exit from high school with Universities and TVET colleges not offering skills/ curriculum required by the industry (skills mismatch)
- Higher education institutions not properly funded
- Current lecturers not skilled enough for the practical trades
- TVETs do not have technical training facilities
- TVETs cannot afford to recruit suitable skills (lecturers)
- TVET graduates not recruited by the industry

Information Box 2: Examples of skills to be considered for education and training in support of 4IR

- Computer programming/ coding
- Data, information processing and analytics
- Ability to interact with modem interfaces (human-machine/robot)
- AI and data analytics
- Cybersecurity (IT security and data protection)
- Digital production processes
- Knowledge management
- Entrepreneurship skills
- Creative problem solving
- Open-mindedness to constant change
- Green skills in support of the transition to a green economy

8.2.2 Health

While average life expectancy has increased steadily since the publication of the National Strategic Plan 2015 – 2020 (DoH, 2015), South Africa still faces a quadruple burden of disease, namely communicable diseases with maternal, perinatal and nutritional conditions, HIV and TB, non-communicable diseases (NCDs) and injuries.

The Department of Health (DoH) contributes directly to the realisation of Priority 2 (education, skills and health) of the government's 2019-2024 Medium Term Strategic Framework (MTSF) and the vision articulated in Chapter 10 of the National Development Plan.

Over 80% of patients in South Africa are served by the public health service. This places a high case load on the health services and staff, which is also reflected in high patient loads at health facilities. Health system reforms focus on improving management, patient care within communities and at primary healthcare level, and universal access to health care and the National Health Insurance (NHI).

Only 8.2% of the population of Limpopo are covered by private medical aid schemes. According to the provincial satisfaction survey, 86.2% of households said that they would first go to public clinics, hospitals or

other public institutions, while 1% of responding households said that they would first go to a traditional healer. The Traditional Healers Association is recognised by the DoH as a critical stakeholder that interacts with most people in the Limpopo Province and provides traditional forms of treatment, medicine and spiritual healing. The balance of households said that they would first consult a private doctor, private clinic or hospital.

Despite general satisfaction levels, certain areas could improve, namely general and emergency healthcare services, accessibility to medical facilities in rural areas, service delivery in hospitals and, in particular, increasing staff numbers to reduce patient waiting times. It is also critical for Limpopo residents to have access to advanced community-based healthcare and advanced healthcare clinics, especially in the prevention and long-term care required for non-communicable diseases such as hypertension and diabetes.

8.2.2.1 Life expectancy

Life expectancy is increasing. By 2018, life expectancy at birth was estimated at 61.1 years for males and 67.3 years for females nationally, with the levels being 58.6 for males and 65.4 for females in Limpopo. The expansion of health programmes to prevent mother-to-child transmission, and to ensure access to antiretroviral treatment, has partly led to the increase in life expectancy since 2007.

8.2.2.2 Communicable diseases

- The Limpopo DoH aims to reduce HIV/AIDS, TB, malaria, and neglected tropical diseases by 2030, and to put in place measures to reduce the burden of other communicable diseases (waterborne diseases, hepatitis, etc.).
- The number of AIDS-related deaths declined consistently since 2007, from 276,921 to 115,167 in 2018.
- Access to antiretroviral treatment (ART) has changed historical patterns of mortality. Access to ART has thus extended the lifespan of many South Africans.
- The total number of persons living with HIV in South Africa increased from an estimated 4.25 million in 2002, to 7.52 million in 2018. For 2018, an estimated 13.1% of the total population was HIV positive. Approximately one-fifth of South African women in their reproductive age (between 15 and 49 years) were HIV positive. HIV prevalence among the youth aged between 15 and 24, declined over time, from 6.7% in 2002, to 5.5% in 2018.
- Tuberculosis (TB) remains South Africa's leading cause of death. Approximately 450,000 people contract the disease every year, and 270,000 of those are also living with HIV. An estimated 89,000 people die from this disease annually. The country has made considerable progress in fighting the disease, but much more is needed to bring it under control, particularly in early diagnosis, to ensure adequate treatment. The government is committed to screening 90% of those at risk of contracting TB, ensuring that 90% of suspected cases are correctly diagnosed and treated, and ensuring that 90% of those treated are cured. Most cases are drug-sensitive and respond well to standard treatment with a combination of drugs, but failure to complete a proper course of treatment encourages the development of multi-drug-resistant TB (MDR-TB), which is difficult and costly to treat, with poorer results. In the order of 1.8% of new cases of TB in South Africa are multi-drug resistant.
- Malaria remains a challenge in the Vhembe and Mopani Districts, that border Zimbabwe and Mozambique respectively. Malaria transmission in Limpopo is aggravated by inadequate malaria control at the regional level (SADC), and the primary malaria control intervention is the Indoor Residual Spraying Programme.
- The Province has reported surprisingly few COVID-19 cases to date (as at September 2020), this being largely attributed to the early and strict enforcement of lockdown conditions. However, the peak patient load for Limpopo is projected in a second wave, expected in 2020/2021. In line with the caseloads in Gauteng and the Western Cape, between 1.45% and 1.61% of the population are expected to test positive within the expected 2-year COVID-19 pandemic. Using the 2018 StatsSA's population estimate of 5,797,300, this would project between 84,061 and 93,336 cumulative positive cases in Limpopo. The health system has been strengthened in preparation for the peak patient load.

8.2.2.3 Maternal, infant and child mortality

- The infant mortality rate (IMR) has declined from an estimated 53.2 infant deaths per 1,000 live births in 2002, to 36.4 infant deaths per 1,000 live births in 2018. Similarly, the under-5 mortality rate (U5MR) declined from 80.1 child deaths per 1,000 live births, to 45.0 child deaths per 1,000 live births between 2002 and 2018.
- By 2030, all countries aim to reduce neonatal mortality to 12, and under-5 mortalities to 25 per 1,000 live births respectively.

8.2.2.4 Non-communicable diseases

- The Limpopo Province presented the highest prevalence of disability in the country (6.5%).
- The 2016 South Africa Demographic and Health Survey indicates that the prevalence of hypertension is the lowest in Limpopo, when compared to the national prevalence of 18.9 cases per 1,000 of the population aged 40 years and above, reflecting sustained increases since 2014/2015. On average, 34% of women and 29% of men suffer from hypertension.
- Diabetes mellitus (here referred to as 'diabetes') is a major condition of growing concern, worldwide and in South Africa. It is associated with many complications, which can be prevented or have a delayed onset with timely diagnosis and appropriate treatment, management and control. The Limpopo diabetes incidence in 2016/17 was 2.0 cases per 1,000, compared to the national incidence of 2.5 per 1,000 of the population.
- There is a shortage of psychiatric care facilities and services, both in the communities under the Department of Social Development and those under in-patient care.
- Violence and injuries form one of the four components of the quadruple burden of disease that South Africa faces, with an injury death rate twice the global average, and higher than the African average.
- The Provincial Department of Health aims to reduce premature mortality associated with non-communicable diseases and mental health by one third by the year 2030.
- The Provincial Department of Health, in conjunction with the South African healthcare system, aims to address unmet medical needs in non-communicable diseases such as cancer, neuro-degenerative diseases, diabetes and hypertension.

8.2.2.5 Social determinants of health

The following two social determinants of health require urgent attention in the Limpopo Province:

- Access to improved sanitation was most limited in the Limpopo Province, where only 58.9% of households had access to improved sanitation facilities (i.e. flush toilets connected to a public sewerage system or a septic tank, or a pit toilet with a ventilation pipe)
- 7.4% of households had inadequate, or severely inadequate, food access

8.2.2.6 Community based healthcare

Community health workers based at every clinic, provide outreach to households in the community and patients with chronic conditions, including TB, HIV, hypertension and diabetes. The service allows for early detection, diagnosis, and referral of new patients to the local clinic, and encourages patients to get onto treatment quickly. The service also ensures patients take their medications regularly. Community health workers use traditional and cell phone apps to track their patients, treatment, and compliance.

8.2.2.7 Healthcare facilities and services

In 2016, the Limpopo Province had 41 hospitals, of which three provide specialist psychiatric care, and one provides specialist MDR-TB care. In addition, there are 458 clinics and 27 community health centres. Both public and private hospitals are assessed annually to ensure that the services, management and facilities

comply with the National Core Standards (NCS). By 2020, a number of hospitals required some upgrades to improve the ability to provide regional and tertiary services. Similarly, the Ideal Clinic reporting system captures areas where a clinic, or community health centre, has elements that do not comply with the Ideal Clinic Standards. By 2020, approximately 40 clinics still required upgrading to comply with these standards.

8.2.2.8 Community Oriented Primary Care

If the most vulnerable members of the population cannot get to a healthcare facility, we will take the healthcare facility to them. That is the starting point of an ambitious pilot project in three communities around the Mogalakwena Mine in Limpopo Province, which will see healthcare workers delivering medical care and education directly into communities and households.

The objective is to improve the health status of more than 24,000 people through better management of chronic diseases, the identification and management of undiagnosed health risks and related problems in homes, enhanced family health and raised awareness and ownership of healthcare.

The Community-Oriented Primary Care (COPC) programme is a joint initiative between the University of Pretoria's Department of Family Medicine, the Department of Health and the recently-launched partnership platform, the Impact Catalyst, which brings together Anglo American, Exxaro, the CSIR and World Vision to develop improve the wellbeing of mining communities in Limpopo

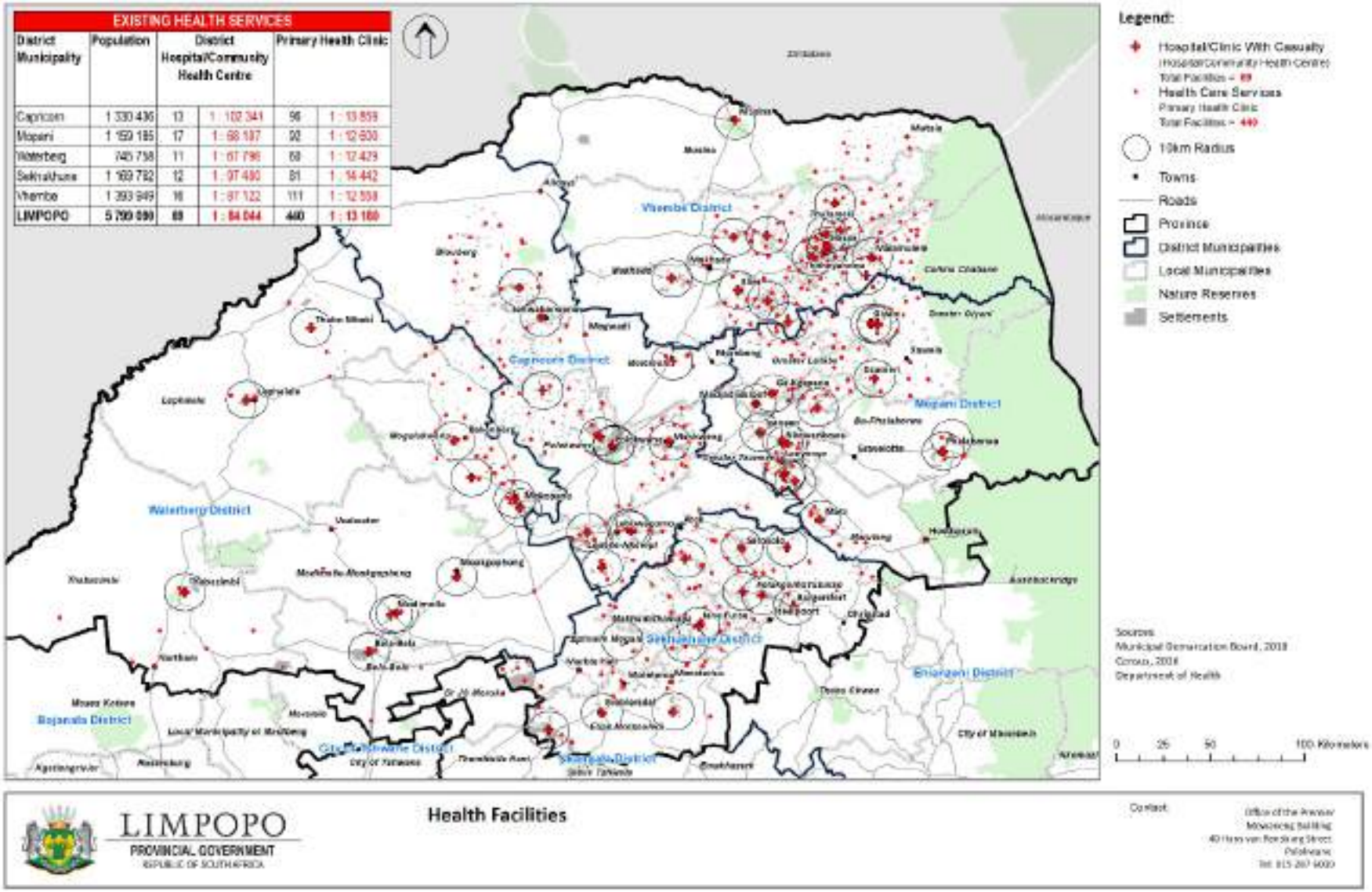


Figure 70: Healthcare facilities in Limpopo (10km radius)

Sources: Municipal Demarcation Board 20018; Census 2016; Department of Health

The critical challenges facing the Limpopo Province in this regard include:

- The maintenance of facilities as a result of budget, skills and staff shortages, required to maintain high-tech medical equipment and facilities
- The shortage of specialist tertiary facilities (referral for some conditions is to hospitals in Gauteng)
- Shortage of regional hospital facilities, including ICU and neonatal services
- Access to facilities from more remote rural areas, where patients rely on mobile clinics and ambulance services
- Maintaining the cold chain, and stock of critical medication, throughout pharmacies, depots, dispensaries, and stock systems
- Shortage of pharmaceutical products throughout the local healthcare facility networks (hospitals, clinics, pharmacies)
- Service delivery due to human resource issues, which can be improved by increasing staff numbers to reduce the long patient waiting times
- Quality of service for emergency and specialised medical care for complicated diseases
- Shortage of skilled workers in healthcare system and the need for advanced equipment in order to support healthcare systems
- Shortage of psychiatric in-patient care facilities, as well as community-based care facilities (Department of Social Development)
- Shortage of academic and training facilities to produce the required numbers of doctors, nurses and allied workers at universities, nursing colleges, nursing schools, and allied training institutions
- Shortages of staff, particularly midwives, pharmacists and doctors, affect the efficient implementation of the referral system, and often result in high patient loads at facilities that do have adequate staff

8.2.2.9 COVID-19 related indicators

In the case of the COVID-19 pandemic in South Africa, a number of questions were faced by several sector departments concerned with better understanding the risks posed by COVID-19 to communities and the health system, and the associated vulnerabilities. The questions most frequently asked were:

- Which communities will struggle to apply the principles of social distancing, and where are they located?
- Are there areas that will struggle to maintain the principles of good basic hygiene (e.g. handwashing) due to a lack of basic water and sanitation services?
- Where are elderly communities (who will be more susceptible to severe disease from COVID-19) located?
- Where are communities with a high burden of co-morbidities (current disease burden) located?
- Where are highly vulnerable communities (those who may be in need of targeted co-ordinated interventions and early response) located?
- Can the potential hospitalisation demand be met with an adequate supply of beds, equipment, health workers and emergency personnel?

The indicators are thus concerned with looking at the vulnerabilities present in communities and identifying areas in need of targeted co-ordinated interventions and early response. Three indicators were developed, namely the Transmission Potential Index, Health Susceptibility Index and COVID-19 Vulnerability Index. It must be noted that the development of the indicators was intended to support the early prevention/ mitigation and preparedness phase of the disaster management cycle, and their use was therefore restricted to supporting and informing disaster management decision-making.

The Transmission Potential Indicator identifies areas where existing living conditions could make it difficult to maintain social distancing and practise good basic hygiene, in order to contain the spread of COVID-19. Three main variables were used as inputs into this indicator:

- Informality: number of informal dwellings per enumeration area (informal dwellings and informal backyard structures)
- Population density: number of people per hectare
- Lack of access to basic services: number of households without basic access to running water and sanitation

The Health Susceptibility Indicator provides an indication of areas where larger numbers of people are potentially more susceptible to being adversely affected by COVID-19 (suffering more severe disease). This indicator was derived by assigning specific weights to various age categories, and assigning a higher susceptibility to groups of people with known co-morbidities.

The COVID-19 Susceptibility and Transmission Potential Indices are based firstly on how effectively the spread of COVID-19 can be contained (transmission potential), and secondly on the population's susceptibility to severe disease associated with contracting COVID-19 (health susceptibility). These indicators, although applied for a particular challenge, can also indicate remaining gaps in development efforts.

Figure 71 shows that in most traditional settlement areas, the transmission potential is high due to poor living conditions and a lack of access to services. Although this indicator reflects high-risk areas for transmission, it also points to many areas where a lot still remains to be done to address basic development challenges such as levels of service. Urban areas, although also affected, are easier to address, considering the more compact development. Noticeable is that there are not high levels of risk, but rather large areas/ clusters of risk.

The Health Susceptibility Indicator can also be used for future planning, to target areas with older, more vulnerable populations, when considering the provision of services such as home-based care, old age homes, and transport for the elderly, as well as accommodating people with existing medical conditions. Transitional settlement areas are also difficult to serve due to the low-density settlement pattern.

Although the COVID-19 Vulnerability Index Indicator (refer to Figure 73) is aimed at COVID-19 vulnerability, it reiterates the areas with services access and infrastructure challenges. It is more difficult to provide services to rural settlement areas, which places more emphasis on the need to develop local anchor towns where a range of services can be accessed.

8.2.2.10 Opportunities for/through 4IR for health

The following opportunities have been identified for 4IR technology in the health sector of the Limpopo Province:

- Supply chains, stock monitoring and ordering can be optimised using AI
- Anomaly detection
- Automation of dispensing in clinics and hospitals
- Rapid diagnosis and testing in community for communicable and NCD’s
- Xray and telemedicine services
- Educational programmes for NCD’s and communicable, mom-connect system
- Community health workers using cell phone apps
- Community oriented primary care (COPC) primary health care with the University of Pretoria (UP) app (Impact Catalyst)

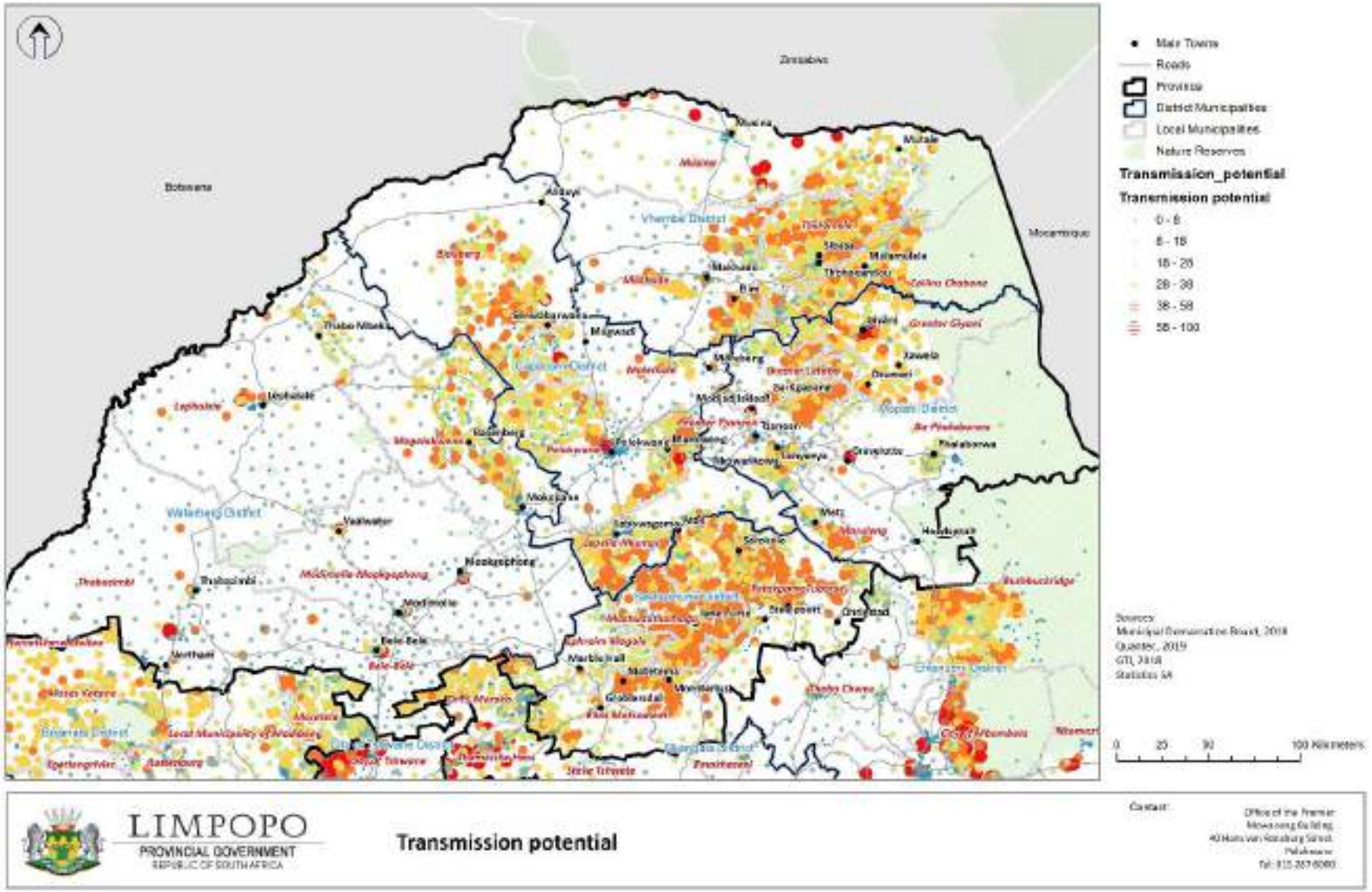


Figure 71: Limpopo: COVID-19 Transmission Potential Indicator

Source: CSIR 2020

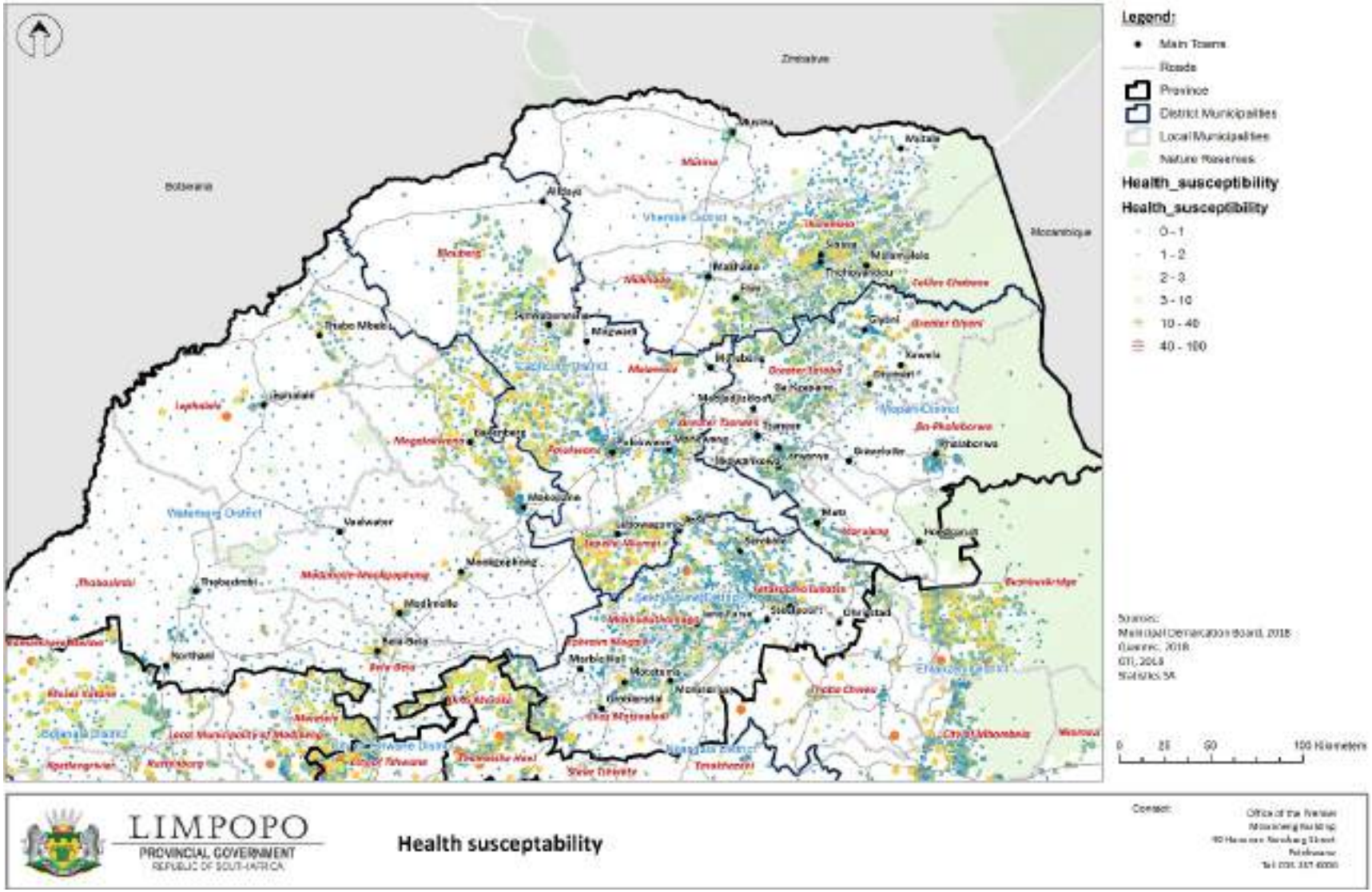


Figure 72: Limpopo: COVID-19 Health Susceptibility Indicator

Source: CSIR 2020

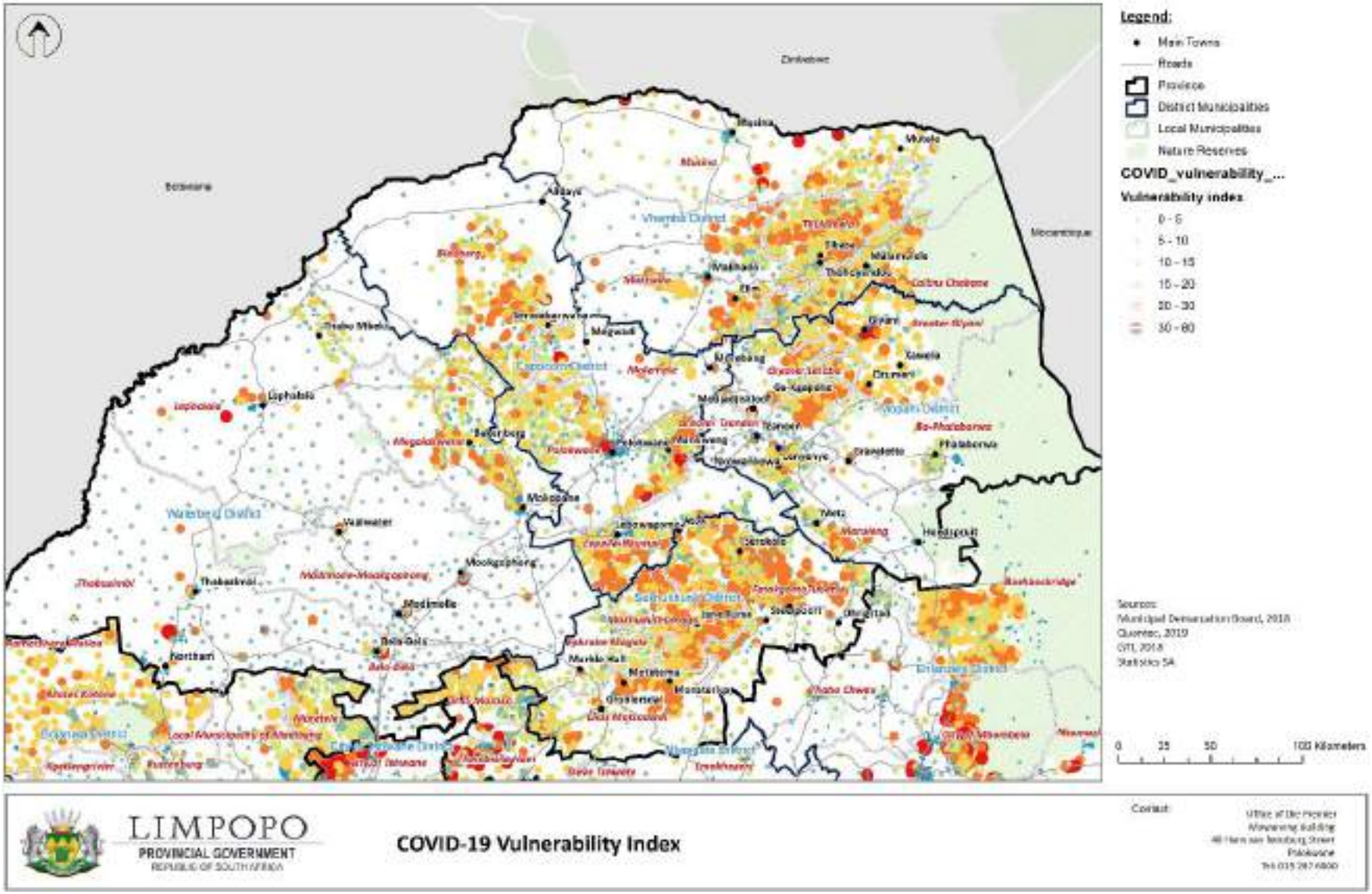


Figure 73: Limpopo: COVID-19 Vulnerability Index Indicator

Source: CSIR 2020

8.3 Limpopo communities

8.3.1 Vulnerable individuals, groups and communities

Social Grants are administered by the South African Social Security Agency (SASSA) whose mandate it is to ensure the provision of comprehensive social security services to mitigate vulnerability and poverty, within the South African constitutional and legislative framework. Social Grants are in place to improve standards of living and to redistribute wealth to create a more equitable society. Grants are targeted at categories of people who are vulnerable to poverty and include the following: Old Age Grant, Disability Grant, War Veteran's Grant, Grant in Aid, Care Dependency Grant, Foster Child Grant and Child Support Grant.

Table 27 below indicates the type of social grants, and the number of grant beneficiaries in the Limpopo Province, for April 2020.

Table 27: Limpopo: number of social grants by type, as at the end of April 2020

Social grant	Total number	Percentage of total
Old Age Grant (OAG)	482,362	18.6%
War Veteran Grant (WVG)	2	0.0%
Disability Grant (DG)	96,588	3.7%
Grant in Aid (GIA)	56,198	2.2%
Care Dependency Grant (CDG)	16,569	0.6%
Foster Child Grant (FCG)	42,254	1.6%
Child Support Grant (CSG)	1,895,779	73.2%
Total	**2,589,752**	**100.0%**

Source: SASSA, Statistical Report One: Payment System, April 2020

From 2011 to 2016, the number of female-headed households in Limpopo increased by 67,883, from 714,612 to 782,495. The most significant increase was within the Vhembe District, with an increase of 18,647.

According to Community Survey 2016, there were a total of 25,867 child-headed households, or households headed by children under 18, within the Province in 2016. The majority of child-headed households reside in adequate dwellings (88.1% or 22,785). The largest number of child-headed households are within the Vhembe District (28.9% or 7,470 households) followed by the Mopani District (27.7% or 7,165 households).

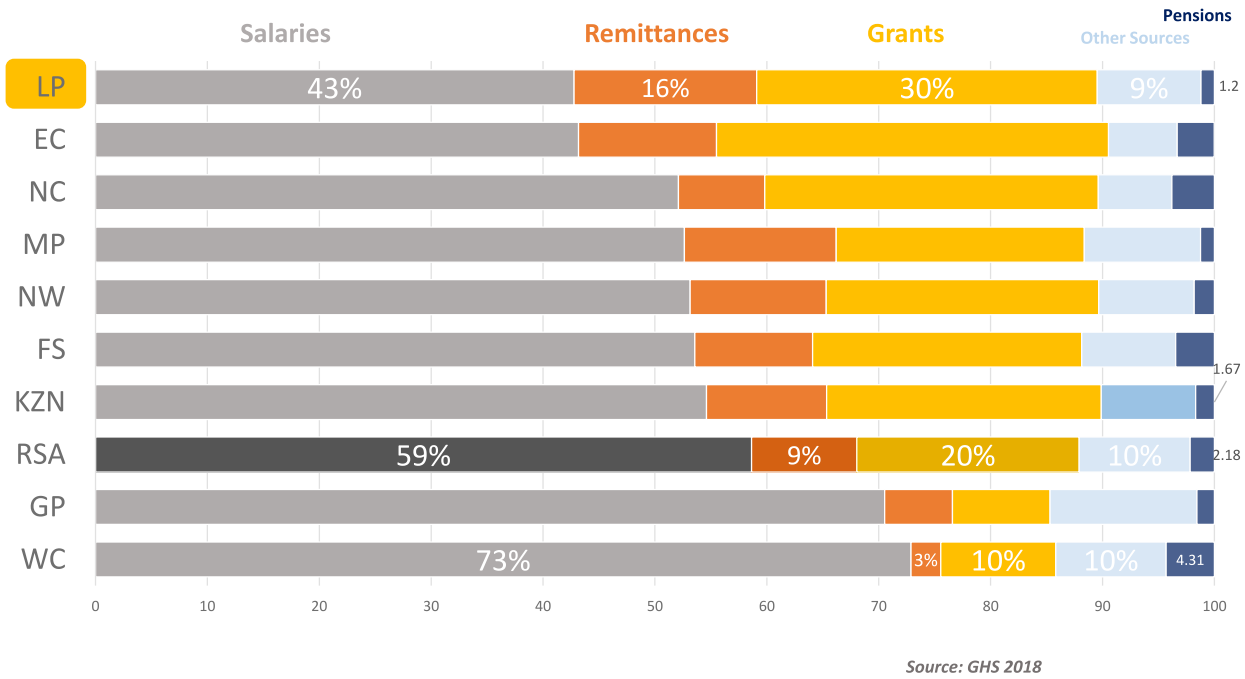


Figure 74: Percentage distribution of main sources of household income by province, 2018

The Social Development Sector provides social protection services and leads government efforts to forge partnerships through which vulnerable individuals, groups and communities become capable and self-reliant participants.

The bulk of the services are provided through funding from civil society organisations. These services are directly provided by Social Workers, Child and Youth Care Workers, Probation Officers and Community Development Practitioners in all the districts and welfare institutions. The most critical target beneficiaries are children, older persons, and persons with disabilities.

The vision for the Social Development Sector is a caring and self-reliant society and an improved quality of life for the poor and vulnerable.

The Early Childhood Development (ECD) Policy approved in 2015, emphasised that there is still a need to focus more attention on the foundation years to prepare children for better educational outcomes. Child protection services is one of the largest programmes in the department, and 43% of the total budget is allocated to ensure that most of the vulnerable children are provided with services.

The size of the child population aged 0-4 years in the Limpopo Province is estimated to be 671,145 according to mid-year population estimates for 2019, approximately 51% males and 49% females. Between 2014 and 2019, an estimated 224,835 (34%) children accessed services in registered ECD Programmes, with 111,960 (49.7%) subsidised through Conditional grant and Equitable Share. However, about 66% of children in the Province are not attending ECDs at all, or are in unregistered centres or non-centre-based ECD Programmes.

Table 28: Limpopo: child population (0-4 years) 2019

District Municipality	StatsSA Community Survey 2016	Percentage (%)	StatsSA mid-year population estimates (MYPE) 2019
Vhembe	163,902	24%	161,074
Capricorn	154,877	23%	154,363
Waterberg	78,220	12%	80,537
Sekhukhune	144,404	21%	140,940
Mopani	138,761	20%	134,231
Total	**680,164**	**100%**	**671,145**

Source: StatsSA Community Survey 2016; MYPE 2019

The infrastructure backlog remains a challenge, even though the conditional grant introduced in 2017 is making a difference in the maintenance of the ECD centres to ensure that they meet minimum norms and standards. There is still much to be accomplished to ensure that the condition of infrastructure is addressed, whilst offering non-centre-based programmes in the meantime where there are no ECD programmes. The skills development programme to professionalise ECD Practitioners also needs a coherent plan by Department of Basic Education to ensure that the skills level of the practitioners is scaled up and that they are professionalised.

Children in Limpopo face numerous challenges that render them vulnerable. These challenges include death of biological parents/guardians/caregivers, unemployment, teenage pregnancy and drug and substance abuse. According to MYPE 2019, Limpopo's 0 – 18 year child population size is 2,516,519, which is 42% of the total population, comprising 51% males and 49% females.

The current coverage for children accessing care and protection services is 169,914 children, which is 7% of the total child population. Seventeen Child and Youth Care Centres (CYCC) are funded, providing services to children in need of care and protection. The subsidy for CYCCs has been increased from R2,500 to R4,000 per child per month, and R4,600 a child per month provides specialised care for children with disabilities. This increment is in line with a National Association of Welfare Organisations and Non-Governmental Organisations (NAWONGO) court judgment.

A total of 364 Drop-in Centres (DICs) are funded, to provide care and support to orphans and vulnerable children in the age group 6 to 18 years, and 54 community-based prevention and early intervention centres for children's services, which include DICs and the former Isibindi Programme. A total of 1,880,288 children are receiving a Child Support Grant, and 51,167 children are receiving a Foster Care Grant from SASSA.

Families in Limpopo are faced with a number of challenges, which impact negatively on their ability to sustain themselves. Such challenges are partly related to poverty, unemployment, lack of integrated basic services, poor infrastructure and social ills**.** By 2019, the Department of Social Development had provided care and support to 378,512 families in parenting and family preservation services, hence contributing to family integration and reunification. The programme will be strengthened, together with faith-based and non -profit organisations to ensure there is cohesion within families and communities.

The size of the youth population, aged 20 to 34 years, accounts FOR 24.9% of the total provincial population, of which 50.3% are male and 49.7% female.

Table 29: Limpopo: Proportion of youth population, 2016

Total population - youth (20 to 34 years)	Male		Female	
	No.	Percentage	No.	Percentage
1,492,484	750,706	50.3%	741,778	49.7%

Source: StatsSA Community Survey 2016

According to the crime statistics report by SAPS, there was an increase of children who were charged with crimes between 2013/2014 and 2017/2018, to a total of 15,393 children, which is 0.8% of the total child population.

The Department of Social Development assessed 8,529 children in conflict with the law over the past five years. Most of the crimes committed are common assault, theft, public violence and indecent assault. The main causes for committing crimes are related to abuse of substances such as alcohol and drugs. To a certain extent it can further be attributed to poverty, lack of parental care and supervision. Currently, 404 children were referred, 455 completed diversion programmes, and 34 were sentenced into secure centres for having committed serious crimes.

There is no accurate and reliable data that shows the nature and extent of the drug problem in the Province. The United Nations Office on Drugs and Crime reports that, in 2014, people between the ages of 15 and 64

had used illicit substances at least once in the previous year. Of those who use psycho-active substances, statistics show that a large number will develop a substance abuse problem. Substance abuse contributes significantly to global illness, disability and death. Injectable drug use contributes significantly to the transmission of serious communicable diseases such as Hepatitis C and HIV/AIDS.

Alcohol remains the dominant drug that is used in Limpopo. It also causes a high impact in terms of both communicable and non-communicable diseases. Since the opening of the Seshego Treatment Centre in November 2018, about 61 users of the service received in-patient treatment, whereas 954 accessed out-patient services between April 2018 and June 2019. According to the crime statistics report by SAPS, there has been an increase of 103.91% from 2013/14 to 2017/18 drug-related crimes, and 150.62% cases of driving under the influence of alcohol or other drugs. The implementation of the reviewed Drug Master Plan is crucial to make sure all the role-players in the Province participate in reducing the scourge, especially amongst the youth.

The Department of Social Development is currently funding 74 victim empowerment services sites, to provide care and psycho-social support to victims of crime and violence, as part of the fight to end gender-based violence and femicide. In partnership with other government departments, municipalities, traditional councils, and civil society including communities and faith-based groups, there must be a more direct effort in reducing alcohol use and abuse, which is a major contributing factor in the perpetration of violence, through legislative and other measures and also through community mobilisation. The Department will be strengthening the victim empowerment programme, together with other sectors and civil society, in ensuring there is care and protection for victims of crime and violence. The additional resources provided, to employ more social workers in dealing with the situation, will go a long way in making sure that prevention programmes are scaled up.

Table 30: Limpopo: Proportion of adult population, 2016

Total population for adults (35 to 59 years)	Male		Female	
	No.	Percentage	No.	Percentage
1,441,789	624,860	43	816,928	57

Source: StatsSA Community Survey 2016

The size of the adult population aged 35 to 59 accounts for 24% of the total provincial population, of which 43% is male and 49.7% female.

8.3.2 Persons with disability

Table 31: Limpopo: Persons with disability

District Municipality	Total population no. (all ages)	Percentage (%)
Mopani	322,110	18%
Vhembe	368,764	20%
Capricorn	450,070	25%
Waterberg	266,041	15%
Sekhukhune	392,754	22%
Aggregated	1,799,739	100%

Source: StatsSA Community Survey 2016

The population size of persons with disability accounts for 33.3% of the total provincial population, of which the highest is in Capricorn District and the lowest in the Waterberg District.

According to MYPE 2019, the size of the youth population in Limpopo is estimated at 1,492,484, aged 20 to 34, which constitutes about 25% of the total provincial population, of which 50.3% are males and 49.7% females. Unemployment in youth, aged 18 to 35, was 18.9% in 2019. The reasons attributed to youth unemployment is school dropout, lack of relevant skills and substance abuse.

According to StatsSA, General Household Survey (GHS) 2015, an estimated 510,005 individuals had severe inadequate access to food and nutrition, particularly among people living in poor and vulnerable households. This is as the result of poverty and unemployment in rural and peri-urban communities. The Department of Social Development has thus far provided nutritious food to 24,314 households, and benefitted 705,857 people, who were fed through Community Nutritional Development Centres (CNDCs), ECDs, DICs, Older Persons and People With Disability Centres, and Department of Social Development (DSD) Food Security Programmes. It is critical for the Province to make a co-ordinated effort in dealing with household poverty to ensure that in the next five years progress is made toward halving the poverty level within the Province.

There is a need for a skills revolution for inclusive socio-economic growth, transformation and development. The structural skills mismatch between labour demand and supply, has favoured high-skilled individuals, whilst the majority remain unemployed. The programmes implemented by the Department of Social Development for skills development needs to be reviewed to make sure that ultimately, most of the participating youth are able to compete in the labour market.

In the past five years, 14,500 youth aged 18 to 35 were trained through skills development and entrepreneurship programmes, whereas 89,367 women participated in socio-economic empowerment programmes.

Approximately 1.8 million population in Limpopo are persons with disabilities, and only 4,760 have benefited from DSD programmes, which accounts for 2.6% of the total disabled population. Furthermore, there are incidences of abuse and neglect of persons with disabilities by family and community members. A total of 98,763 of persons with disabilities are receiving disability grants through SASSA. There are three residential facilities providing 24-hour care and rehabilitative services to persons with disabilities, and 69 community-based centres are funded by the Department, whereas 81 remain unfunded due to budgetary constraints.

The Department of Social Development has partnered with the Japan International Co-operation Agency in the empowerment of persons with disabilities through the Disability Mainstreaming Project operating in Collins Chabane in Vhembe District, and has now commenced in the Greater Giyani Municipality, Mopani District, and which will gradually be rolled out depending on the availability of resources. The project reaches out to persons with disabilities, both in protective workshops and communities. There is still a need to strengthen partnerships with municipalities to make sure that community-based centres are prioritised in order for more people with disabilities to participate in skills development programmes and be mainstreamed in economic development. The need for a co-ordinated strategy to empower people with disability by different sectors and other stakeholders, needs to be prioritised so that as a Province, the White Paper on Disability is fully implemented.

The Department will intensify the roll-out of social and behaviour change programmes, as well as psycho-social support services to people infected and affected by HIV and AIDS. In the past five years, 243,701 beneficiaries were reached through the programme. The Zazi and Yolo programmes, introduced in the Capricorn and Mopani Districts, are empowering youth in ways of deal with life's challenges that will guide them to become stronger adults. The programmes will be rolled out in all districts to make sure that a large proportion of children and youth are reached.

8.3.3 Crime trends

Limpopo Province is serviced by 103 police stations and 42 satellite police stations. The provincial crime situation and trends are described below.

Contact crimes and property-related crimes

Contact crime refers to those crimes in which the victims themselves are the target of violence, or property is targeted and the victims are in the vicinity while the crime is being committed and they are subjected to threats of violence or the use of such violence.

Reported contact crime (crimes against the person) shows an increase of 0.6% over the last five years. The contact crime categories that showed an increase were murder (by 0.3%), assault and grievous bodily harm (by 0.9%), common robbery (by 2.4%) and sexual offences (by 5.1%).

The increase of all categories of sexual offences, except sexual assault, is a cause for concern. Rape increased by 6.1%, while attempted sexual offences and contact sexual offences increased by 0.5% and 12.7% respectively.

The categories of crime that showed a decrease are: attempted murder (by 5.7%), common assault decreased (by 1.2%), and robbery with aggravating circumstances (by 0.6%).

The most prevalent generators of contact crimes are attributed to social factors, including degenerating morals, dysfunctional families, greed, unemployment, poverty, abuse of alcohol and drugs, poor environmental design, possession of unlawful firearms and arguments. The group behavioural contributors to these crimes are mob-justice, community retaliation, gangsterism and taxi-related violence. Finally, the lack of effective deterrence (sentencing) and limited police officers, are also contributors.

The contact crime trends require urgent intervention. The MTSF acknowledges that the government has not yet been able to provide sufficient capacity in areas of forensic, detective, investigative and prosecution services, which hampers the Justice, Crime Prevention and Security (JCPS) Cluster's efforts to reduce the overall levels of crime, particularly "contact" crimes.

8.3.4 Level of satisfaction of civic society

A Customer Satisfaction Survey conducted during 2019 reflected an increase in customer satisfaction to a level of 54.5% (from 40% in 2009). However, this is still far below the satisfaction benchmark or threshold of 70%. The following challenges were highlighted:

- The number of students in the class in primary and high/secondary schools
- Feeling safe while walking alone in neighbourhoods and business areas at night
- Access to water

In addition, dissatisfaction levels were higher than satisfaction levels for the following:

- Response times by the SAPS, including non-availability of satellite or mobile units at night and over weekends
- Feeling safe while walking alone in neighbourhoods and business areas at night
- Government's efforts to support households' food production, and all items related to economic opportunities
- A perceived lack of support, training and monitoring of small-scale farmers
- Small businesses struggled to access the necessary funds to start and run their businesses
- Cost and reliability of, and access to, water
- Refuse removal
- Access to telecommunications via communication facilities, community centres/ living labs, and schools
- The condition of roads in neighbourhoods
- All items related to corruption and the Limpopo government's efforts to tackle corruption
- Methods and ease of reporting complaints, as well as the treatment of complaints
- Complete service experience received from a provincial government department
- Poor response times to emergency medical calls, and hospitals and clinics had little to no medication

In summary, from the findings of the 2019 survey, the overall households appear to be more satisfied than they were in 2009. However, the satisfaction rate is still not at a level that is satisfactory and very few items met the benchmark of 70%. The items that did meet the 70% satisfaction threshold were education (excluding

post-school training), electricity, public transport, the physical condition of hospitals and clinics, and the ease of applying for a grant and social security.

The target of 50% women at senior management level was not achieved by most departments in the Province. Overall, the public service is still grappling with the employment of people with disabilities, but the Office of the Premier (2.3%), as well as the Department of Sport, Arts and Culture (2.4%), performed well towards achieving the target of 2% employment for people with disabilities (PSC, 2014).

8.4 Human Settlements

8.4.1 Settlement patterns

The settlement pattern of the Limpopo Province is strongly correlated with the spatial distribution of the traditional authority areas across the Province (refer to Figure 75). The Province has 150 traditional authorities that govern 25% of the provincial land. Clusters of low- to medium-density, dispersed settlements on traditional land are found in the north-eastern, eastern and south-eastern parts of the Province, incorporating most of the provincial population. There is a further concentration of settlements in the central and north-eastern parts of the Province, starting at Polokwane and Mokopane, and stretching north-east towards the Bochum and Mapela areas.

Settlements in the western part of the Province are concentrated in urban nodes along the N1 and in the mining regions of Lephalale and Thabazimbi/Northam.

The highest population densities can be found in urban nodes and regional development anchors that are located along key national and regional roads, namely the nodes of Polokwane, Thohoyandou and Mokopane. However, the larger concentration of the population is, in most instances, concentrated not in urban nodes, but in surrounding areas, primarily traditional areas surrounding urban nodes such as Motetema, Hlogotlou, Namakgale/Lulekani, and Nkowankowa/Lenyenye. Spatial integration is therefore still a challenge and the larger concentration of communities remain the furthest from the urban amenities and key corridors.

The scattered and dispersed settlement pattern in Limpopo does not support the development and maintenance of cost-effective infrastructure provision, mobility and accessibility. The Limpopo Multi-year Human Settlements Development Plan is therefore premised on the need to develop human settlements at spatially targeted areas in the Province, in support of long-term sustainability and economic growth, as well as on spatial transformation as the outcome.

Rural densification is a current development trend where communities develop middle- to high-income residential houses on state or tribal land that borders main towns or road corridors, irrespective of the lack of formal tenure security and planning or of community and municipal services. These development trends are beginning to restructure spatial patterns, as well as local economies, in the Province. The downside of the trend is that it results in an increase in the backlog of planning and service provision, and increases daily commuting to the closest urban area when public transport and road infrastructure is not properly planned and upgraded to accommodate such densification. Due to the informal nature of the densification, the developments do not contribute to municipal revenue generation either.

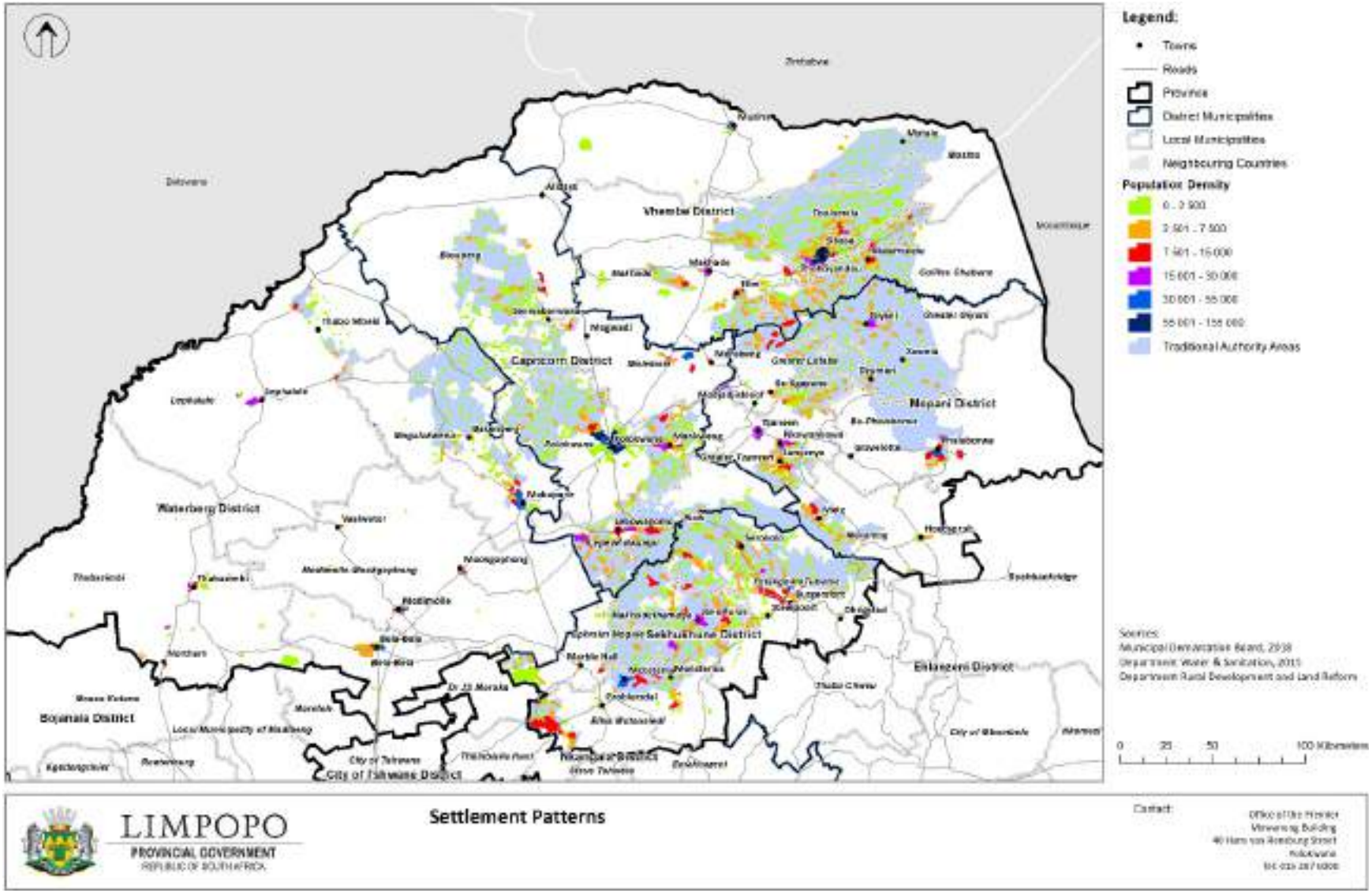


Figure 75: Limpopo boundaries and settlement patterns

Sources: Municipal Demarcation Board 2018; Department Water and Sanitation 2015; Department Rural Development and Land Reform

8.4.2 Housing and tenure situation

There was a positive increase of 15% in home ownership between 2011 and 2016 (StatsSA Census 2011; Community Survey 2016). A total of 71.9% of households in the Province own their residence according to the Community Survey 2016. Overall, rental, as a form a tenure, decreased over the same period. Rental in the Waterberg District (17.8%) is notably higher than that of the provincial average (9.7%) and this is the only district that has experienced an increase (33.3% increase or 9,386 households), which can be related to the mining regions of Lephalale, Thabazimbi and Northam. However, due to the majority of households residing on traditional and communally-owned land, progress is required to improve the tenure status in the Province and to develop asset creation through spatially-targeted human settlements programmes across all districts.

According to Community Survey 2016 data, the majority of households in the Province (88.9%) reside in adequate dwelling types. This is a slight increase of 1% from 2011 (accounting for 150,568 households) and this showcases the positive contribution of the government's human settlements programmes.

However, a remainder of 10% of households in the Province do not have access to adequate housing, as is enshrined in the Bill of Rights. The total provincial housing backlog is estimated at 124,849 households (Limpopo MYHSDP, 2020). The bulk of the provincial housing backlog is concentrated in traditional areas, and traditional dwellings comprise 41% of the total backlog.

Part of the housing backlog comprises 76 informal settlements that require upgrading or relocation responses. The informal settlements are located primarily in the City of Polokwane, Tzaneen/ Nkowankowa, all the Mining Towns in Distress, and some of the provincial and district growth points, especially in the Waterberg District. A quarter of the housing backlog (inadequate dwellings) are backyard shacks, which are predominantly concentrated in the mining districts of Waterberg and Sekhukhune. Although the profile of households residing in inadequate dwellings reflects that the majority are low-income earners that may qualify for housing subsidies, 12.5% of households residing in inadequate dwellings as part of the housing backlog are middle- and high-income earners who need alternative housing options with private-sector investment. All the informal settlements in the Province are being assessed and planned in compliance with the new Informal Settlements Upgrading Partnership Grant.

8.4.3 Housing delivery

According to Version 1 of the Limpopo Multi-Year Human Settlements Development Plan (MYHSDP) dated August 2020, 34,776 subsidised housing units were delivered between 2016/2017 and 2019/2020 within the Limpopo Province, which equates to an average delivery rate of 8,694 units per annum.

Furthermore, the Province delivered 45,363 housing units under the Rural Settlements Shelter and Integrated Residential Development Programme between 2014 and 2019, which is an achievement of 82% of the target, despite reduced grant funding received over this period. However, the Province has been criticised for its delivery focus on top structures and to a lesser extent on the outcomes of spatial integration and transformation. The reason is that the projects identified for spatial transformation and integration have been delayed by challenges such as a lack of bulk infrastructure.

The human settlements delivery targets of 2014-2019 were mostly not achieved, with the programmes in need of improvement being rental housing, informal settlements upgrading and title deed restoration. Factors that contributed to underperformance included institutional capacity challenges such as a lack of project management capabilities and inadequate contractor management, supply chain management challenges such as the late approval and appointment of contractors and the underperformance of contractors, and lastly institutional planning challenges such as the state of development-readiness of projects received from municipalities. Unfortunately, the majority of these challenges relate to the state of governance at provincial and municipal level.

To eradicate the total provincial backlog of 124,849 households by 2024, an average of 24,970 housing opportunities per annum will need to be delivered over the next five years from 2019 to 2024. This equates to triple the average annual delivery rate of the past five years, and emphasises the urgent need to improve the institutional capacity of the government to address the housing demand.

8.4.4 Total housing and land demand

Based on population growth projections as per the StatsSA Midyear Population Estimates 2019, and factoring in the number of units delivered through housing programmes from 2016/2017 to 2019/2020, the total estimated housing demand for the period 2019-2024 for the Limpopo Province is 307,844 dwelling units. The demand is mostly concentrated in the Polokwane and FetakgomoTubatse Municipalities, and would need investment from both the public and private sector.

The Musina and Polokwane Municipalities stand out as the municipalities with the highest urbanisation pressure, with the Bela Bela, Thabazimbi and Modimolle-Mookgopong Municipalities following close behind.

An estimated 76% of the estimated growth in households is projected to fall within the low-income category, as well as an estimated 104,779 households forming part of the backlog. Together, the 258,929 households would specifically need government support in terms of supply of services and housing.

The total land required to accommodate the household growth and the existing backlog by 2024, is estimated at 10,602,8ha (Limpopo MYHSDP, August 2020). The land requirements for the Polokwane and FetakgomoTubatse Municipalities are the largest in the Province and, importantly, both of these municipalities experience challenges in the availability of well-located land for human settlements purposes.

Human settlements development is an important restructuring element for transformation and consolidation, but only if the land is well-located and has secured tenure. The combination has been shown to contribute towards the alleviation of asset poverty, the reduction of inequalities, and the creation of assets for marginalised communities. The spatial location of land for human settlements is therefore a crucial determinant for well-designed human settlements development. In line with sound planning principles, and as outlined in the NSDF, it is important that the household growth be provided with housing opportunities and sustainable livelihoods in a manner that results in spatial transformation.

Based on an analysis that was conducted in the Limpopo SDF, 53% of land in the Limpopo Province is owned privately (either by individuals or corporations), while the state owns 22% and traditional authorities 6%. According to the data, very little land in the Province (0.4%) is owned by the respective local municipalities. The municipalities in greatest need of land are Lephalale, Polokwane, Bela Bela, FetakgomoTubatse and Thabazimbi.

A number of properties owned primarily by the state through the Department of Public Works and the Department of Rural Development and Land Reform, have been released for human settlements purposes. Furthermore, since 2007, a number of properties have been acquired from private owners in Polokwane, Lephalale and Bela Bela, and have become priority projects in the Province.

However, the greater proportion of these properties have not yet been developed, or have not yet achieved the intended outcomes, which raises a red flag. The key issues with implementation include a lack of bulk infrastructure capacities, the land acquired for rental housing not being located in restructuring zones, the feasibility of the land for the intended markets (low to middle-income) being challenged, as well as implementation issues. All properties acquired are located in Priority Human Settlements and Housing Development Areas (PHSHDAs), except Bela Bela Extension 25. According to the MTSF targets 2019-2024, all land acquired in PHSHDAs should be rezoned by 2024. This target implies that all these properties need to complete their respective project packaging and township establishment processes. Furthermore, additional opportunities for consolidation should be investigated in order to fast-track the development of the land acquired, and to ensure that the ultimate outcome is spatial transformation and asset poverty alleviation.

In compliance with the Human Settlements Framework for Spatial Transformation and Consolidation 2019, the future focus of land assembly is towards the PHSHDAs. This necessitates that the Province aligns its land assembly strategy towards the acquisition of well-located land in PHSHDAs only, except in exceptional cases.

8.4.5 Challenges

The most pertinent development challenges relating to human settlements in Limpopo, can be summarised as follows:

- Lack of sufficient bulk infrastructure supply or services to accommodate urban growth and human settlements investment: this challenge has been a serious delaying factor, especially for the implementation of priority projects, and is a threat to economic and human settlements investment in urban areas such as Musina, Tzaneen, Polokwane, and Thabazimbi
- Supply chain management and contract management capacities: underperformance has been linked to the late appointment of contractors, as well as to the poor contract management of underperforming contractors, which has resulted in slow delivery and incomplete projects
- Poor contractor performance, especially the implementation of larger human settlements projects
- Improved project planning: project packaging, due diligence and the preparation of credible project readiness/business plans and implementation programmes, are required to improve the delivery of all programmes, especially land assembly, informal settlements upgrading, catalytic project, rental housing and Integrated Residential Development Programme (IRDPs)
- Delays with SPLUMA approvals, as well as certain municipalities that are not yet SPLUMA-compliant, in terms of approved land use management schemes and by-laws
- Alignment of government programmes and budgets: despite efforts, there remains a gap in the alignment of planning and budgeting between human settlements and other provincial departments in terms of the implementation of supporting social and economic infrastructure, as well as transport services in alignment with human settlements subsidy programmes
- The need to fast-track the acquisition and release of suitable, well-located land in PHSHDA areas such as Polokwane, Lephalale, and Thabazimbi, and growth points such as Bela Bela
- Land invasion remains a continuing threat that is not adequately managed across the Province, as well as the unplanned development of significant settlements on traditional and tribal land that is not classified as informal settlements to receive grant funding
- Improved consumer education to access the affordable housing market, as well as consumer education on the subsidy support programmes

8.4.6 Interventions towards spatial transformation

Since the inception of government housing programmes, the overall principle applied was an equal allocation of housing top structures per municipality, with additional units for those with higher growth. This approach did not realise spatial integration and transformation. The new Human Settlements Framework for Spatial Transformation and Consolidation 2019 explicitly directs that investment should be focused on spatial targeting areas in order to achieve spatial transformation and asset creation, as well as the consolidation of investment initiatives.

A number of spatial targeting areas have been identified across Limpopo. The spatial targeting areas indicate areas to be targeted for infrastructure investment, consolidation and development spending. The spatial targeting areas are reflected in Figure 76. They include national and provincial spatial targeting areas such as PHSHDAs, Mining Towns in Distress, SIPs, NSDF systems of nodes and corridors, Limpopo Priority Housing Development Areas, Limpopo Provincial Growth Points Programmes, Limpopo spatial nodal growth points and SEZs.

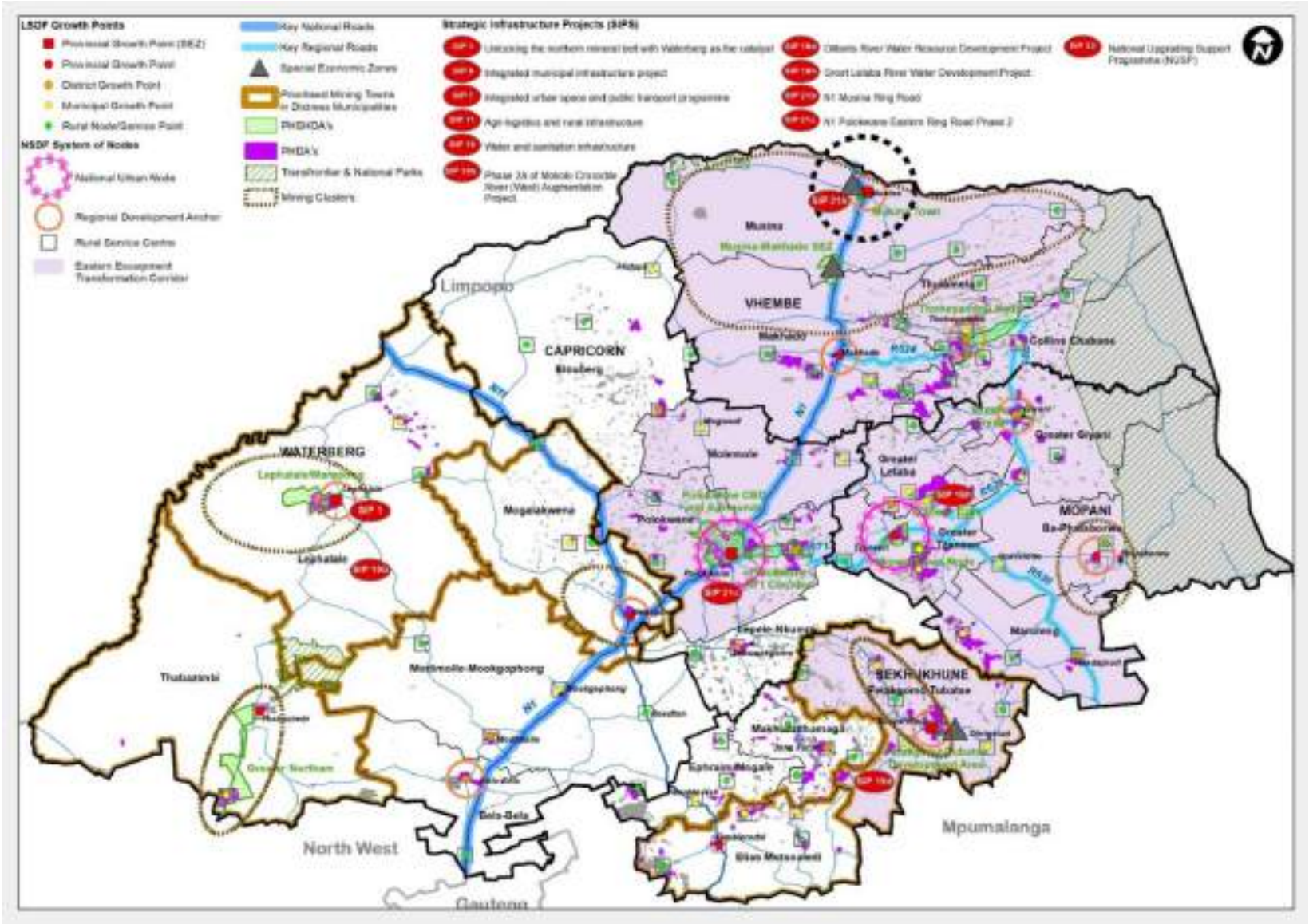


Figure 76: Limpopo Human Settlements Spatial Targeting Areas

Source: Limpopo MYHSDP Review 2014-2019

8.4.6.1 COVID-19 de-densification spatial targeting areas

The COVID-19 pandemic led to the identification of dense informal settlements that require the emergency de-densification of vulnerable individuals who must be relocated to safer areas. Two settlements were identified in Limpopo, namely Burgersfort Extension 10, and Talana Hostel in Tzaneen. This emergency intervention emphasised the need to have proper records of the state of informal settlements.

8.4.6.2 Priority Human Settlements and Housing Development Areas

The declaration of Priority Human Settlements and Housing Development Areas (PHSHDAs) is a national directive to influence the macro-spatial outlook towards spatial transformation. The identified areas are the highest priority spatial targeting areas for human settlements and infrastructure investments, and should be the first level of prioritisation for investment in the Province.

The delineation of the PHSHDAs followed a process of identifying areas of deprivation, areas of growth, areas with high investment potential and priority areas. The PHSHDAs include priority areas such as human settlements catalytic projects, SEZs, restructuring zones, renewal areas, informal settlements and distressed mining areas.

The principal aim with the promulgation of the PHSHDAs is to prioritise and focus investment efforts towards spatial consolidation and transformation. Any project planned outside of these areas will require a motivation for funding in support thereof.

On 15 May 2020, 11 PHSHDAs were gazetted in Limpopo. These include the Musina-Makhado SEZ, the Distressed Mining Communities of Northam and Tubatse, and the Urban Growth Point areas of the Province. The full list is provided below.

Table 32: PHSHDAs of Limpopo per district and local municipality

District	Municipality	PHSHDA name	Area (ha)
Capricorn	Polokwane	Polokwane CBD and surrounds	28,638
Capricorn	Polokwane	Polokwane R71 Corridor	12,993
Subtotal Capricorn			**41,631**
Mopani	Greater Giyani	Greater Giyani	1,995
Mopani	Greater Tzaneen	Nkowankowa Node	1,931
Mopani	Greater Tzaneen	Tzaneen Core	6,722
Subtotal Mopani			**10,649**
Sekhukhune	FetakgomoTubatse	Fetakgomo/Tubatse Development Area	1,905
Subtotal Sekhukhune			**1,905**
Vhembe	Musina/Makhado	Musina-Makhado SEZ	8,137
Vhembe	Musina	Musina Town	1,343
Vhembe	Thulamela	Thohoyandou Node	13,828
Subtotal Vhembe			**23,308**
Waterberg	Lephalale	Lephalale/Marapong	17,767
Waterberg	Thabazimbi	Greater Northam	29,478
Subtotal Waterberg			**47,245**
Total Limpopo PHSHDA land area (ha)			**124,737**

Source: Limpopo MYHSDP Review 2014-2019

All the PGPs in the Province were identified as PHSHDAs, with the exception of the Elias Motsoaledi, Mogalakwena and Ba-Phalaborwa Municipalities. The two human settlements catalytic projects of Altoostyd Integrated Human Settlements/ Marapong Community Residential Units (CRU) and Bendor Extension 100 are also included in the PHSHDAs of Lephalale/ Marapong and the Polokwane CBD respectively.

The purpose of the PHSHDAs is that specific programmatic interventions, and the synchronising of programmes within these spatial targeted areas, should be promoted to achieve the Province's transformation objectives. This includes other grants such as MIG, INEP, NDPG and WSIG. The PHSHDA programmatic interventions to be considered include forward-looking land assembly and township establishment, the

upgrading of informal settlements, social housing in declared restructuring zones, greenfields development and urban regeneration. The national housing programmes earmarked to facilitate the aforementioned are the Integrated Residential Development Programme (IRDP), the Upgrading of Informal Settlements Programme (UISP), the Finance Linked Individual Subsidy Programme (FLISP), the Enhanced People's Housing Process (EPHP), the Social Housing Programme in Restructuring Zones, and the Special Presidential Package Programme on Revitalisation of Distressed Mining Communities.

Importantly, investment in the PHSHDAs is not limited to government investment only. The intention is that the government creates an enabling environment for the private sector to invest in these areas and to contribute to the Province's spatial transformation outcomes. To this end, the formulation of area-specific PHSHDA development plans require engagement with the private sector from the onset. Once the plans are in place, a management entity should be in place to champion and co-ordinate implementation.

8.4.6.3 Eastern Escarpment Transformation Corridor

The 2019 draft NSDF identified the Eastern Escarpment Transformation Corridor, which is located mainly in the Limpopo Province. The Corridor is situated within the north-eastern extents of the Province, which runs from Mbombela to Musina and Thohoyandou, and includes the towns of Polokwane, Tzaneen, Tubatse (Burgersfort), Giyani, Makhado, Musina, Phalaborwa and Thohoyandou.

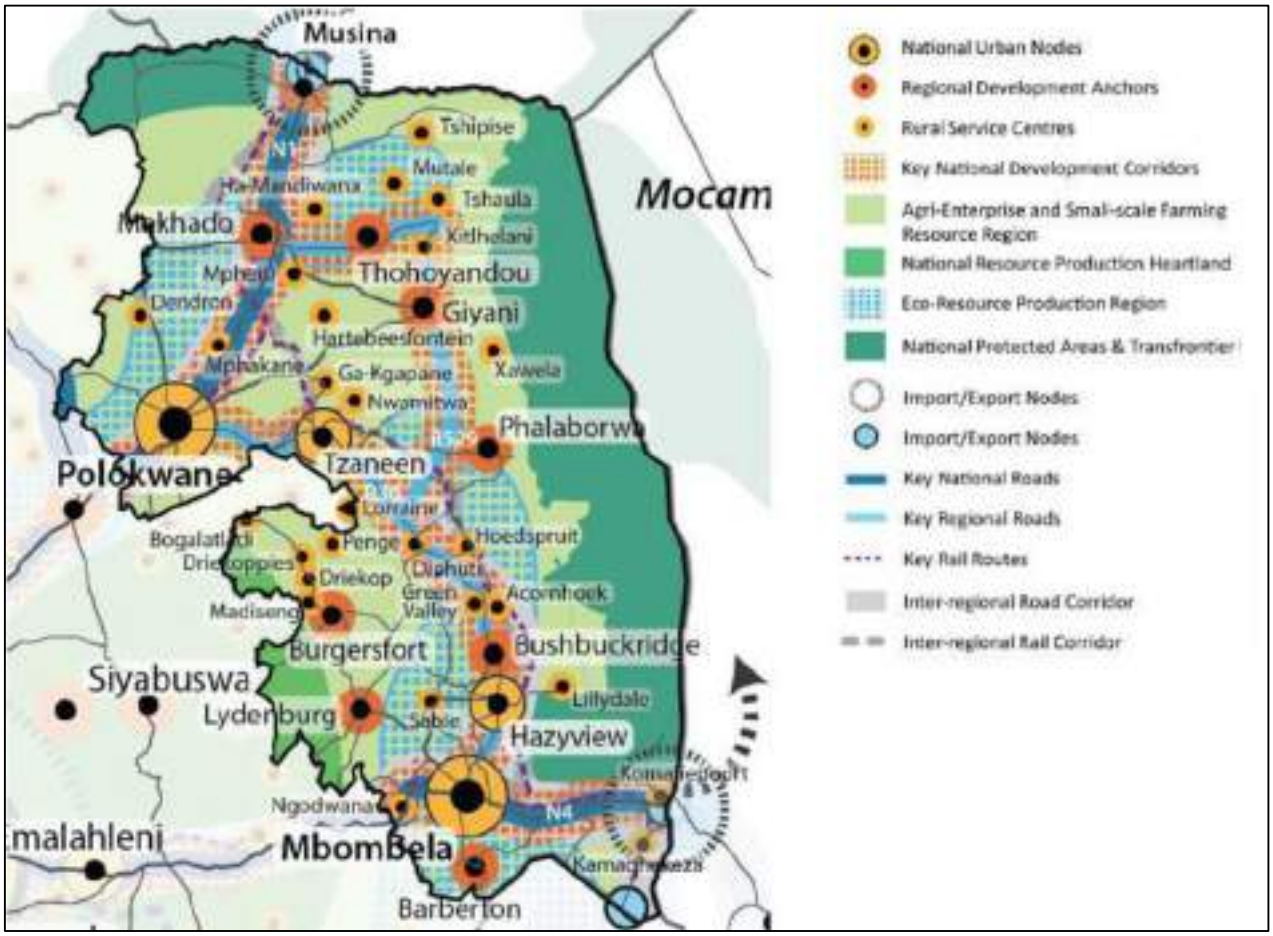


Figure 77: Eastern Escarpment Transformation Corridor

Source: Limpopo MYHSDP Review 2014-2019

In the transformation corridor, the following human settlement aspects should be prioritised:

- Consolidation of settlement development and support of the development of new cities in areas of significant population growth that are facing significant challenges and offer sizeable opportunities for transformation (this focus is to support the emergence of new cities such as Tzaneen)
- Use of urban land reform to guide the interface between settlement planning, land use, development, and infrastructure planning in fast-growing formal and traditional settlement areas
- Introduce and upgrade sustainable built environment infrastructure as a stimulus to enterprise development, with a focus on housing and rural-urban and rural-rural connections

The focus of strategic spatial actions and interventions in the transformation corridor, to bring about transformation include, *inter alia*, the following:

- Providing catalytic, innovative and contextually-suitable sustainable infrastructure, as well as social and basic services, to support enterprise development, well-being, and inclusive growth, with both an ecological and human-focused approach
- Developing a network of strong and vibrant existing and emerging cities and large towns to fulfil the role of fully-fledged national urban nodes, viable regional development anchors, and well-capacitated rural service centres
- Establishing strong regional growth and development compacts, including all role-players, i.e. the three spheres of government, traditional leaders, communities (notably the youth), the private sector, community-based organisations (CBOs), NGOs and organised labour

The review of the Limpopo Spatial Development Framework and the LDP should formulate the strategies towards the achievement of the above interventions within the Province.

8.4.6.4 Mining Towns in Distressed Municipalities

The National Mining Towns in Distress Intervention focuses on the revitalisation of Distressed Mining Town Communities and labour-sending areas. The prioritised mining town municipalities in Limpopo, namely Lephalale, FetakgomoTubatse, Thabazimbi/ Northam, Elias Motsoaledi and Mogalakwena, have been identified as spatially-targeted areas for human settlement interventions. The PHSHDA areas are also aligned to the mining towns (except in the case of Mogalakwena and Elias Motsoaledi, where no PHSHDA areas were gazetted).

Human Settlements Spatial Transformation Plans were completed for all the mining town municipalities in the Province, except for the Mogalakwena Municipality (in progress). Limpopo received a significant ring-fenced budget for the prioritised mining towns. Over the past five years, the programme has focused on supporting human settlements with land acquisition, informal settlement upgrading and the unlocking of bulk infrastructure, all of which are directly aligned with the key thrusts of the Revitalisation of Mining Towns in Distress Programme.

In addition, the Department of Mineral Resources and Energy (DMRE) has promulgated Housing and Living Conditions Standards for the Mining Industry 2019, which stipulate that new and existing mining right holders must submit a Housing and Living Conditions Plan to the DMRE after consultation with the relevant municipality and with labour. This stipulation provides for the additional alignment of planning and the implementation of human settlements in mining areas.

8.4.6.5 Human Settlements Catalytic Projects and Provincial Priority Projects

Around 2016, two national human settlements catalytic projects were approved in the Limpopo Province, namely Bendor Extension 100 in the Polokwane Municipality, and the Joe Slovo/Altoostyd Integrated Human Settlements/Marapong CRU in the Lephalale Municipality. Both approved catalytic projects are included in

PHSHDAs, namely the Lephalale/ Marapong PHSHDA and the Polokwane CBD PHSHDA. In addition to the national catalytic projects, the province has established a number of provincial priority projects since 2009 namely:

- Makgathoville, Polokwane
- Ivypark Extension 35, Polokwane
- Warmbaths Extension 25, Bela-Bela
- Mogalakwena Extension 20, Mokopane
- Annadale Social Housing (Ga-Rena Phase 2)

To date, none of these projects have progressed to a stage where they could make a catalytic impact. Furthermore, considering the system of nodes from the NSDF, Tzaneen and Polokwane were identified as the two national urban nodes in the Province. Tzaneen is also the urban area identified to emerge as a new city in the Eastern Escarpment Corridor. This lends Tzaneen as a potential area for identification of a new human settlements catalytic project, that could be the catalyst for investment in, and the integration of, Tzaneen and Nkowankowa as a city.

It is understood that the design of the catalytic projects does not include smart city approaches, and since the projects are in their early stages, smart city approaches could still be included in these developments.

8.4.6.6 SIP 32: National Upgrading Support Programme

Four informal settlements were upgraded between 2014 and 2019 through township establishment, which resulted in the connection of 16,568 households to basic services. The Provincial Informal Settlement Upgrading Strategy, reviewed in 2019, incorporates a prioritisation matrix based primarily on the readiness of projects.

Although extensive work has been done across the Province (including the identification, assessment, categorisation and enumeration of 80 informal settlements), the projects should be taken forward in the form of establishing and verifying the remaining 76 informal settlement boundaries and densities, updating upgrading plans, forming social compacts, and developing sustainable livelihood programmes – all done by means of participatory-based planning approaches. This process is under way, in preparation for the Informal Settlements Upgrading Partnership Grant.

The COVID-19 pandemic has led to the emergency prioritisation of two informal settlements for de-densification and has placed a renewed focus on informal settlements and households in need of basic services. SIP 32: National Upgrading Support Programme, is one of the new SIPs published in July 2020 that further emphasises the focus on informal settlements upgrading. Together with the interventions in PHSHDAs, an opportunity further exists to verify whether the informal settlements in the Province are indeed situated on well-located land, and to prioritise settlements for upgrading as part of the development plans of each PHSHDA.

Over the past five years, shack farming has also emerged in the Limpopo Province, primarily in the mining areas of Burgersfort and Lephalale. There are currently 23 informal settlements in the Mining Towns in Distress municipalities. Although no upgrading was completed in these distressed municipalities over the past five years, ten Housing Subsidy System (HSS)-approved projects are under way to respond to these communities. The projects include bulk infrastructure upgrading in Lephalale and Tubatse.

In addition to this, the need exists to put a backyarder policy in place and to investigate the implementation of a backyard development programme in the Province, in light of the significant occurrence of backyard dwellings in mining towns and an increase in backyard dwellings around urban nodes, especially Polokwane, Seshego, Mankweng and Marapong (Lephalale). The implementation will require an integrated approach from municipalities between human settlements, land use planning and infrastructure planning.

8.4.6.7 Smart cities

As the world is becomingly increasingly more urbanised, cities need to become centres of innovation and creativity in an attempt to overcome the challenges associated with rapid urbanisation, climate change and general resource constraints. A booklet published by the CSIR titled “Inclusive Smart Cities Appropriate to the South African Context: Key Findings of a CSIR Study” indicates that the smart city concept has gained much traction in recent years, and although no universally-accepted definition of a smart city exists, technological and digital concepts and interventions are recurring themes in most descriptions of smart cities. Examples of local smart city initiatives demonstrate a focus on, or even fixation with, ICT and related technologies, and the scale at which smart cities are implemented varies widely, from city-wide all the way down to precinct level.

Importantly, while the role of technology remains vital in smart cities, there is a growing realisation that smart technologies should not be prioritised at the expense of issues such as social inclusion and sustainability, and recent definitions of smart cities highlight the need for smart city initiatives to ultimately benefit all people and all communities in the city and improve the well-being of the entire urban environment. However, the role of technology is often emphasised at the expense of other essential elements in the drive to address complex urban challenges. Although technology is a core aspect of a smart city, technology alone is not enough to create and spread public value for residents, and focus should be maintained on social inclusion and quality of life.

A number of socio-economic characteristics need to be taken into consideration in the development of South African smart cities, such as poverty, inequality and unemployment – especially when making decisions regarding technological interventions. This is of the utmost importance, as a real risk exists that the digital divide may be widened if the smart city approach is applied as a “technological fix” or a “technical solution” to political and environmental issues. It should also not be assumed that smart city initiatives will improve the quality of life of all people and communities in the city. Some sectors of society may not gain any value from certain technological ‘solutions’ due to factors such as the inability to pay, limited technological understanding, mobility challenges and informal living conditions.

To ensure that the focus is maintained on inclusivity and quality of life improvements, the right questions need to be asked to determine the motivation of those who strive to make a city smarter. At the most basic level, research suggests that a smart city initiative should be informed by the answers to the following questions:

- Are the people living in our city or town satisfied with the services we (local government) provide? If not, improving the delivery of basic services should be the first priority, rather than a smart city initiative that may not satisfy people’s most pressing needs.
- How can the city become smarter and use smart technologies to enhance the effectiveness and efficiency of the services we deliver to improve the quality of life of those we serve as a local government?

Although the smart city can mean different things in different contexts, the concept is ultimately based on the objective of addressing some of the most critical issues that cities need to deal with, such as climate change, urbanisation, economic development, safety and security, citizen engagement and resource efficiency. Some of the opportunities offered by smart cities include:

- More effective, data-driven decision-making
- Reduced environmental footprint/impact
- New economic development opportunities
- Improved quality of life
- Safer communities
- Enhanced resident and municipal engagement
- Cost savings

Furthermore, the following are pre-conditions that determine whether a city can become smarter:

- Institutional and organisational arrangements
- Existing infrastructure
- The capacity of government officials and communities

These clusters broadly involve existing engineering infrastructure, the facilities, amenities and housing available to residents, the ability of the municipality to deliver services, governance structures and overall government capacity, and available financial resources. Some of the enablers that have been identified for implementing smart city technologies include the development of a smart city plan, digital infrastructure availability, skilled people, partnerships and community involvement.

8.5 Infrastructure

The most enabling factor for industrialisation to take off, is investment in infrastructure (both public and private). Infrastructure investment by the government has been on average R7 billion per annum in the last Medium-Term Expenditure Framework (MTEF), totalling R35 billion over three years. The largest proportion of the infrastructure budget is allocated to road infrastructure, education, health and human settlements.

8.5.1 Basic services

Basic services are the fundamental building blocks of an improved quality of life, and adequate supplies of safe water and adequate sanitation are necessary for life, well-being and human dignity. The accessibility of basic services is closely related to social inclusion and social capital, and the failure of municipalities to deliver services can have a detrimental impact on social and economic development.

The summary of household access to services discussed below is based on the StatsSA Census 2011, the Community Survey 2016, the 2019 Socio-Economic Review and Outlook (SERO) Report by treasury, and the Limpopo Provincial Water Master Plan 2016. A provincial and district overview is provided in terms of household access to water services, sanitation, electricity and internet. Bulk infrastructure availability is discussed where information is available.

8.5.2 Water

Safe and sufficient drinking water and adequate sanitation are both essential in ensuring the health and well-being of human beings and are necessary for economic development. The right of everyone to have access to sufficient water, is mandated. South Africa is a dry country with limited freshwater resources, and adequately accessible water and sanitation is a challenge for many households in rural and peri-urban communities.

South Africa has set itself a target of achieving access to improved drinking water services for all its citizens. According to the Community Survey 2016, seven in ten households (75.7%) have access to safe drinking water in Limpopo. District differentials show that the Vhembe District Municipality has the highest proportion of households with safe drinking water , at 81 1%, followed by the Capricorn and Waterberg District Municipalities at 80.1% and 76.1%, respectively.

Table 33 summarises the distribution of households by main source of water for drinking at provincial level, in terms of access to piped (tap) water (piped water inside dwelling/house, piped water inside yard, piped water on community stand, neighbour's tap and public/communal tap) and other/unspecified (borehole, rainwater tank in yard, water carrier/tanker, flowing water/stream/river, well and spring). In the Province, the proportion of households with access to piped (tap) water, either inside their dwelling/house or yard, decreased from 52.4% (or 759,776 households) in 2011, to 48.9% (or 783,148 households) in 2016 (refer to Table 33). Although the proportion of households with access to piped (tap) water, either inside their dwelling/house or in

their yard, decreased between 2011 and 2016, it is evident that the total number of households with access to piped (tap) water either inside their dwelling/house or yard, increased by 23,372 households. It should be noted, however, that the proportion of households with piped (tap) water inside their dwelling/house contributes only a small portion, with only 13.1% of Limpopo's households, or 210,302 in total in 2016. Three districts are below the provincial average of 13.1%, namely Sekhukhune (4.6%), Vhembe (7.4%) and Mopani (12.8%).

Table 33: Limpopo household access to piped (tap) water

Year		Piped (tap) water inside the dwelling/house	Piped (tap) water inside yard	Piped (tap) water on community stand or public/ communal tap	Neighbour's tap	*Other/ Unspecified
2011	Number	267,244	492,532	482,329	No data	206,480
	Percentage	18.4%	34.0%	33.3%	-	14.3%
2016	Number	210,302	572,846	396,199	100,730	321,005
	Percentage	13.1%	35.8%	24.7%	6.3%	20.0%
Change from 2011 to 2016		-56,942	80,314	-86,130	-	114,525

Source: StatsSA, Census 2011 and Community Survey 2016
**Other includes borehole, rainwater tank in yard, water carrier/tanker, flowing water/stream/river, well and spring*

Figure 78 shows that 41.7% of households in the Province reportedly experienced interruptions in the supply of water in the three months prior to the Community Survey in 2016. The proportions of households that experienced water interruptions were the highest in the Sekhukhune District Municipality with 52.6% of households affected, followed by the Vhembe and Mopani Districts at 47.2% and 46.9%, respectively.

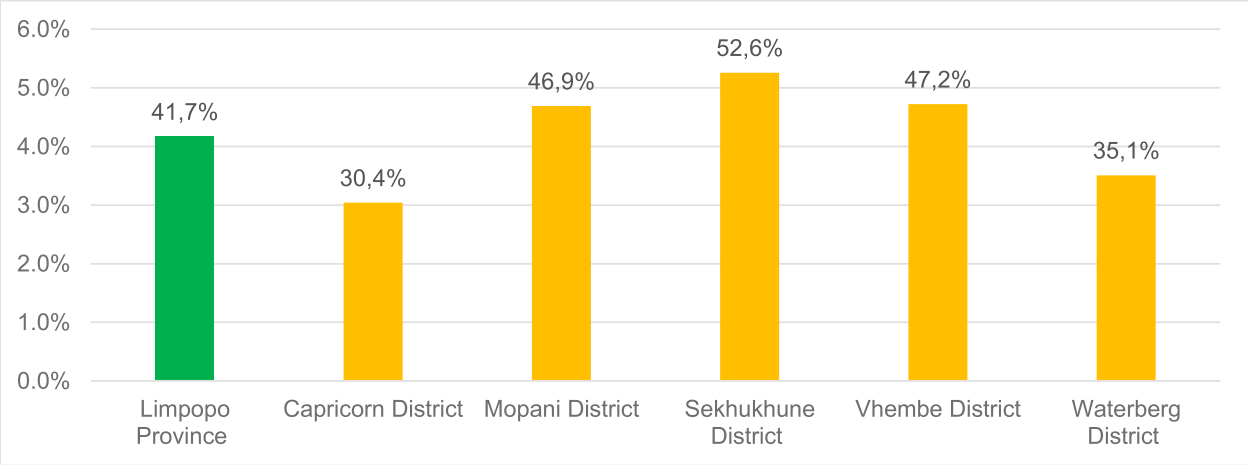


Figure 78: Limpopo: distribution of households with water interruptions in the last 3 months
Source: StatsSA Community Survey 2016
Totals exclude 'Do not know' (9,801), 'Not applicable' (685,048) and 'Unspecified' (1,688)

In terms of water supply, a total of 915,468 (58%) households reported that the municipality is the main supplier of their drinking water in the Community Survey 2016. Other water schemes supply 259,556 (16.5%) households with drinking water, whilst 'own service' is a source of drinking water for 213,460 (13.5%) of households.

In the preceding period, the following water projects were planned to address the water deficit in the Province, namely:

- Bulk water supply to Steelpoort area
- Mokolo Crocodile West Augmentation Phase 2 (MCWAP)

- Nwamitwa Dam in Greater Tzaneen, as well as the prospect of raising the Tzaneen Dam
- Olifants River Water Resources Development Project (ORWRDP): the purpose of the project is to provide physical infrastructure (storage dams and associated bulk distribution system and pump stations) that will enable new allocation/reallocation of water to meet current and future water needs for all sectors within the Olifants and Mogalakwena/Sand catchments. Elements of the ORWRDP include:
  - Construction of a water pipeline from Flag Boshielo Dam to Mogalakwena
  - Formalisation of the Water Supply Agreement
  - Resolving the development and funding constraints in order to finalise construction of the 2C pipeline/ consideration of alternative solution proposed (Local Water Utilities Administration (LWUA))
- Water Provision to Musina-Makhado Special Economic Zone (SEZ): sustainable water supply to the Musina-Makhado SEZ for construction and to support operations (commercial) and new households:
  - There is a deficit of 133 million m^3 of water per annum to support the SEZ project once fully developed
  - Obtaining funding for the requisite feasiblity studies
  - Obtaining comments from Zimbabwe on the Climate Resilient Infrastructure Development Fund (CDIDF) report
- Upgrade Nandoni Water Treatment Works from 60Ml/d to 120Ml/day and construction of associated infrastructure to supply Giyani, parts of Malamulele, and parts of Vuwani with potable water:
  - Securing funding from the Department of Water and Sanitation (DWS)
  - Constructing a package plant in the short term
  - Constructing a conventional plant in the long term

However, the above projects were either not implemented, or are still under construction, which contributed to the water provision regression in the Province. The major challenges with the implementation of water infrastructure are:

- The lack of funds to implement bulk projects
- Poor project management
- Gaps in the medium- and long-term planning regarding source and bulk infrastructure development

In addition to the abovementioned projects, bulk water infrastructure projects that need to be investigated and prioritised in the new term include the following:

- Ga Malekana Water Treatment Works (WTW) upgrade and doubling-up of bulk water infrastructure supplying Jane Furse and Nebo
- Upgrade and refurbish the Dap Naude transfer scheme
- Development of the Malmane wellfield and bulk transfer scheme

A challenge of the same magnitude is the ability of Water Service Authorities (WSAs) to implement Water Conservation and Water Conservation and Demand (WC and WCD) and Cost Recovery. It is estimated that unaccounted-for water in urban areas exceeds 30%. In rural areas, this figure would be much higher. Effective WC and WCD and Cost Recovery implementation would increase water availability to the end user by at least 15%.

It remains a concern that water user rights allocated pre-1994 are still in place and thus limit the opportunity for transformation. Agriculture received disproportionate allocations (approximately 62% of all water resources), but the output from this sector may not be commensurate with the high licencing allocation, and this suggests that a substantial portion of the licencing is not being used.

Water scheme areas in Limpopo, and the high-level infrastructure, form a network across all main settlement areas in the Province. Whilst distribution networks cover most of the areas, the augmentation of water resources remains a priority. With an emphasis on mining in the provincial strategies, competition for this very scarce resource has emerged as one of the most challenging issues in the long-term development and growth of the Province. The agricultural sector is one of the biggest employment providers and must compete with high-revenue mining operations.

The Limpopo Provincial Water Master Plan 2016 combined data from the Department of Water and Sanitation (DWS) and StatsSA census information. This water supply dataset is used to determine the water demand, and ultimately the water balance, for the Province. Household water service levels are classified as follows (as shown in Figure 79):

- Below Reconstruction and Development Programme (RDP) standards
- Adequate to RDP standards (i.e. street taps within 200m walking distance)
- Yard connections
- House connections

According to the Limpopo Provincial Water Master Plan 2016, direct water backlog (below RDP level of supply) affected 453,042 households (i.e. 29.7% of the population).

There are 68 WTWs in the Province. The WTW are generally in an acceptable condition but, according to the Limpopo Provincial Water Master Plan, there is a lack of attention given to the important aspect of the Operation & Maintenance (O&M) of water supply schemes that often leads to deterioration of the useful life of the systems, necessitating premature replacement of many system components. Some of the key issues contributing to poor O&M have been identified as follows:

- Lack of finance and inadequate data on O&M
- Inappropriate system design and inadequate workmanship
- Multiplicity of service providers and overlapping responsibilities
- Inadequate training of operators and lack of performance evaluation and regular monitoring
- Inadequate emphasis on preventive maintenance
- Lack of power and transport management
- Lack of community ownership and participation in the management of services provided
- Lack of real-time field information and delayed response to system failures

The O&M of infrastructure is critical in achieving the service delivery targets of the various municipalities, as the lifespan of the assets is severely affected by the mode of operation. The extent of the backlog caused by non-functional infrastructure reflects on the poor maintenance regimes that prevail in the Province.

The absence of a well-trained, motivated and properly supervised workforce in most Water Service Authorities (WSAs) results in services that are not rendered properly, ongoing and incurring costs of rapid depreciation of assets that are not maintained properly, and the wrath of the client population who do not receive services due to the poor reliability of the systems.

Budgeting for water services is on an ad hoc basis and is not planned from a cost build-up basis. Critical spares, equipment and materials are not always available. Water services planning, budgeting and expenditure is not ring-fenced to the water service function and, as such, the requirements of the water business are sometimes overlooked in favour of other activities.

Most WSAs are operating on a run-to-failure maintenance regime, which has costly ramifications for consumers, the environment and the financial health of the WSAs.

Most rural schemes have no cost recovery and WSAs have to rely on the equitable share allocation of finance for water services to these poor communities. An evaluation of the sustainability of provision of these services needs to be viewed in conjunction with National Treasury and the Department of Co-operative Governance and Traditional Affairs CoGTA.

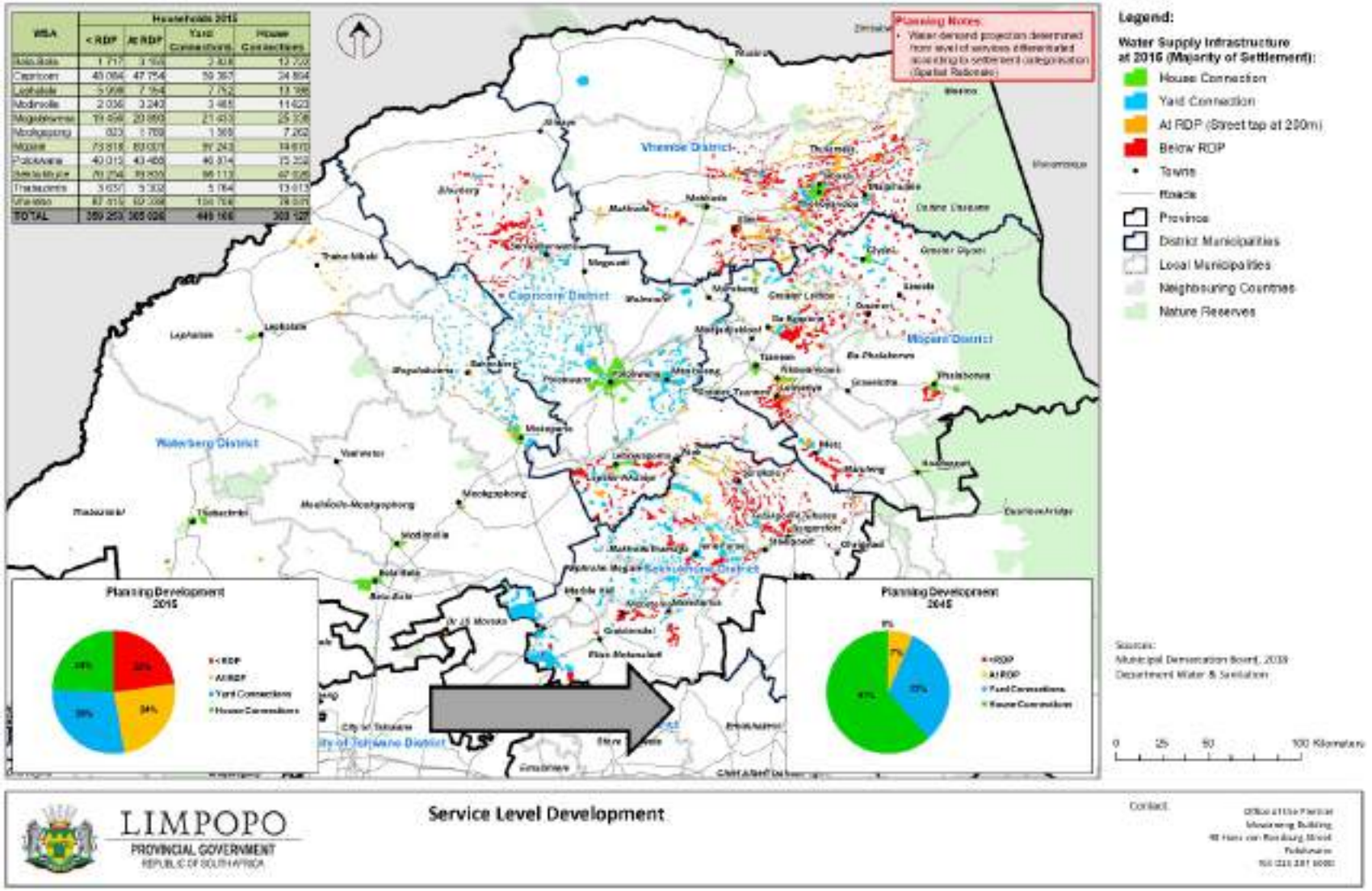


Figure 79: Limpopo: water supply infrastructure at 2015 (majority of settlement)

Sources: Limpopo Provincial Water Master Plan, April 2016; Municipal Demarcation Board 2018; Department Water and Sanitation

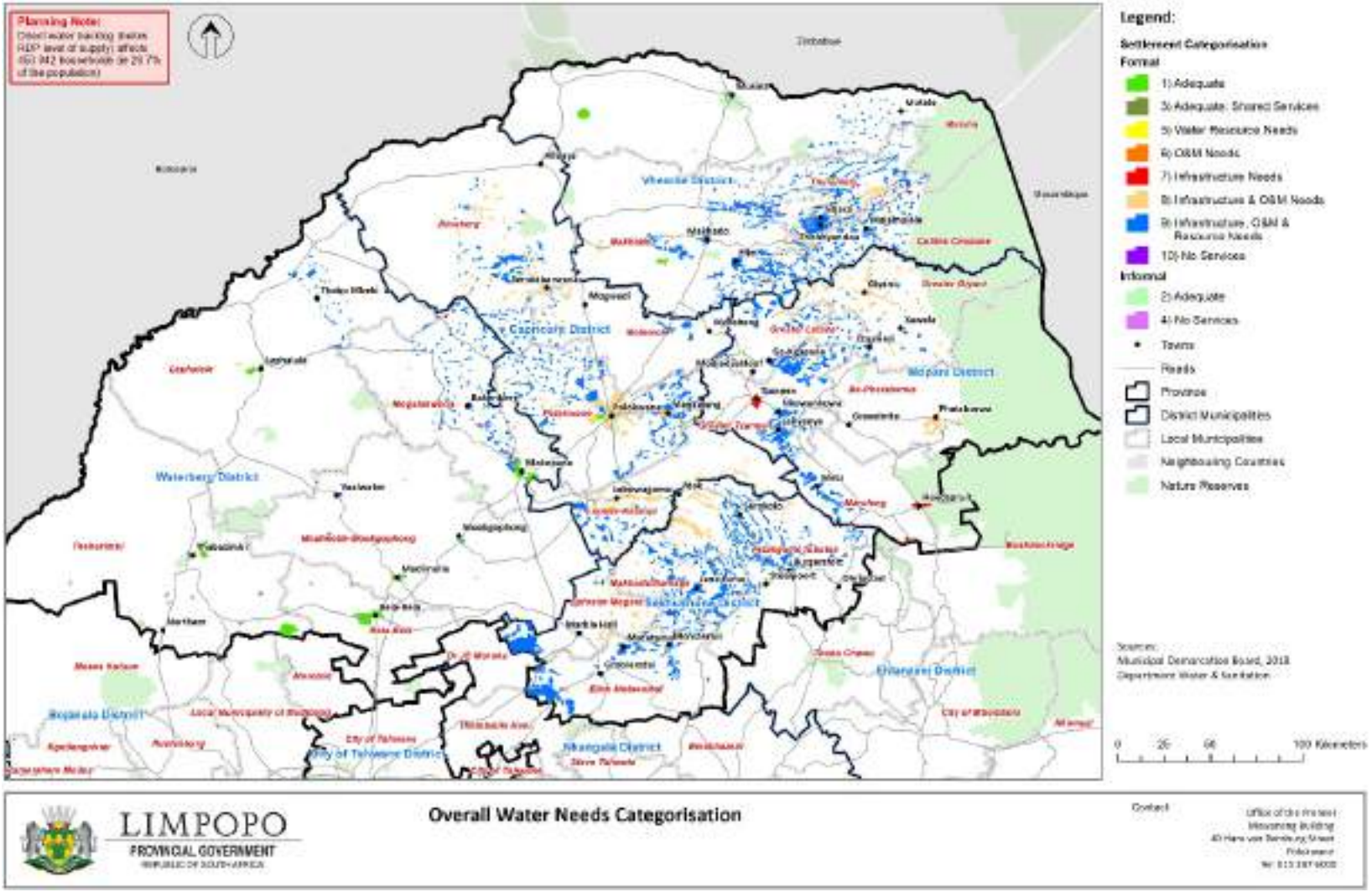


Figure 80: Limpopo: settlement level overall water needs categorisation

Sources: Limpopo Provincial Water Master Plan, April 2016; Municipal Demarcation Board 2018; Department Water and Sanitation

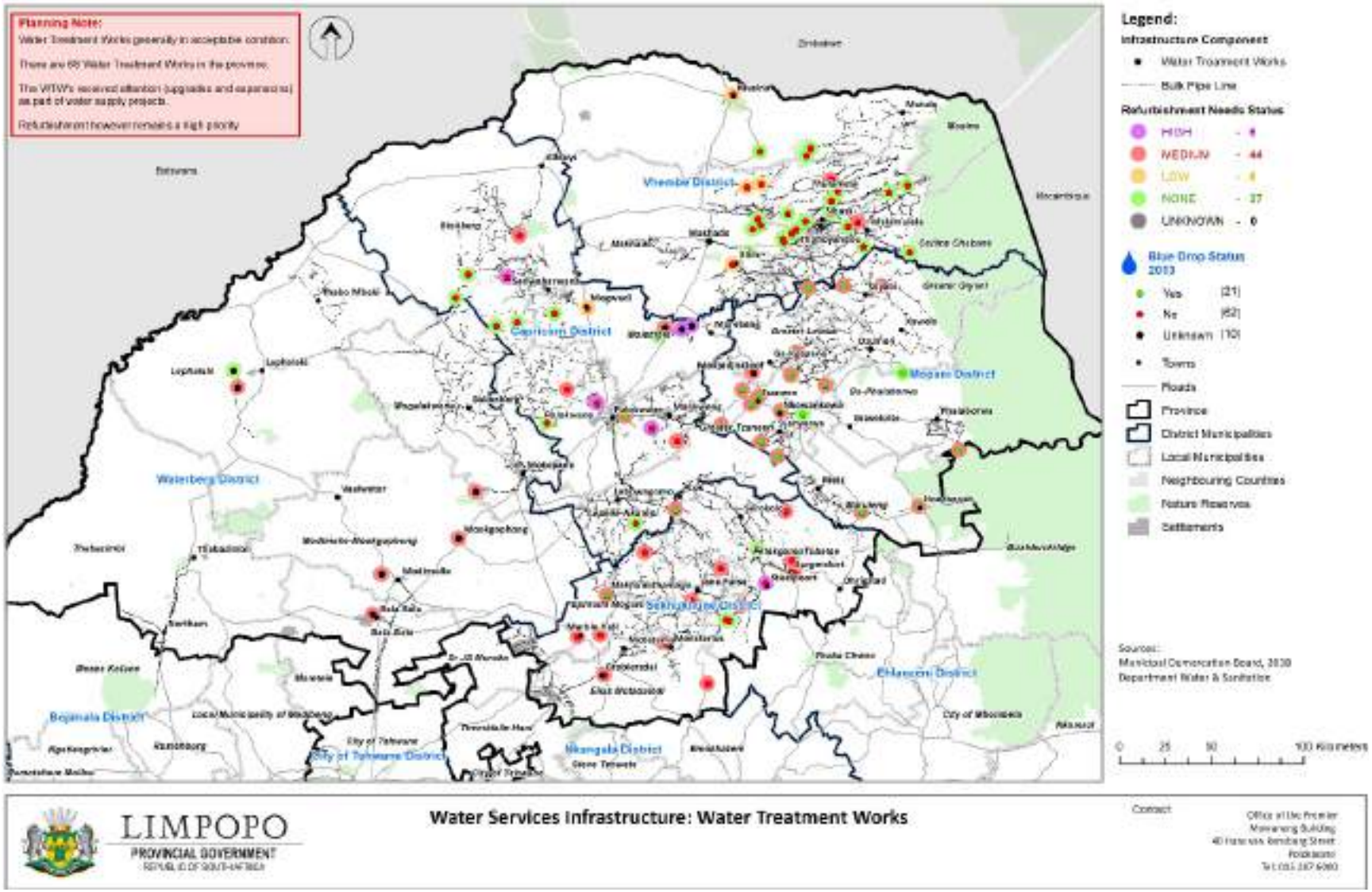


Figure 81: Limpopo: services infrastructure - water treatment works

Source: Limpopo Provincial Water Master Plan, April 2016; Municipal Demarcation Board 2018; Department Water and Sanitation

8.5.3 Sanitation

The Strategic Framework for Water Services 2003, defines sanitation services as the provision of a basic sanitation facility which is easily accessible to a household, the sustainable operation of the facility, including the safe removal of human waste and wastewater from the premises where this is appropriate and necessary, and the communication of good sanitation, hygiene and related practices. Drought is endemic to South Africa in general and presents a major challenge to the achievement of sustainable development. The impact of the current drought conditions is resulting in water restrictions and is causing substantial socio-economic hardships, and a decline in public health, land degradation and biodiversity loss. The limited availability of water also has a negative impact on the provision of sanitation.

In 2016, only 23.6% (or 377,341) of Limpopo's households had access to a flush toilet, either connected to a public sewerage system or connected to a septic tank or conservancy tank. This is a small increase from 22.2% in 2011, which translates to an increase of 56,019 households in total. The most prevalent form of toilet facilities within the Province and across the districts, are pit latrines. In 2016, a total of 1,085,631 households only had access to pit latrines (67.8% of Limpopo's total) and 10,768 to bucket latrines (0.7% of Limpopo's total).

Table 34: Limpopo: household access to toilet facilities, 2011 to 2016

Year		Flush toilet	Chemical toilet	Pit/bucket latrine	Other/ Unspecified	None
2011	Number	321,322	12,448	984,448	25,991	104,376
	Percentage	22.2%	0.9%	68.0%	1.8%	7.2%
2016	Number	377,341	25,101	1,096,399	33,761	68,480
	Percentage	23.6%	1.6%	68.5%	2.1%	4.3%
Change 2011 - 2016		56,019	12,653	111,951	7,770	-35,896

Source: StatsSA, Census 2011 and Community Survey 2016

The proportion and number of households without any form of access to a toilet facility decreased from 7.2% (104,376 households) in 2011, to 4.3% (68,480 households) in 2016. The Vhembe and Mopani Districts both recorded a higher average of households with no toilet facilities than that of the Province in 2016.

Bulk sewage remains a serious problem and affects most parts of the Province. The situation varies from areas where there is no provision for sewage, to areas where there is a serious shortfall in sewer capacity, which creates severe environmental and pollution risks. Of greater concern, is that in most instances, there is no current planning for sewer treatment facilities.

According to the Limpopo Provincial Water Master Plan 2016, direct sanitation backlog (below RDP level of supply) affects 919,946 households.

There are 142 wastewater treatment works (WWTWs) in the Province. Wastewater treatment works generally did not receive attention for upgrading and expansions. The WWTWs started operating in the "wet" weather flow regime and, eventually, the flows into the WWTW exceeded their capacity.

WWTWs require heightened levels of asset management and the current technical skills and managerial skills in the WSA are inadequate. The WWTWs pollute water in streams and dams making existing water treatment works difficult to operate, as they are not designed to cater for such high levels of pollution. Serious WWTW problems need to be addressed in terms of capacity issues and refurbishment aspects. Poor operation and maintenance is a current and ongoing issue.

The vulnerability of O&M of infrastructure is indicated in the figure below.

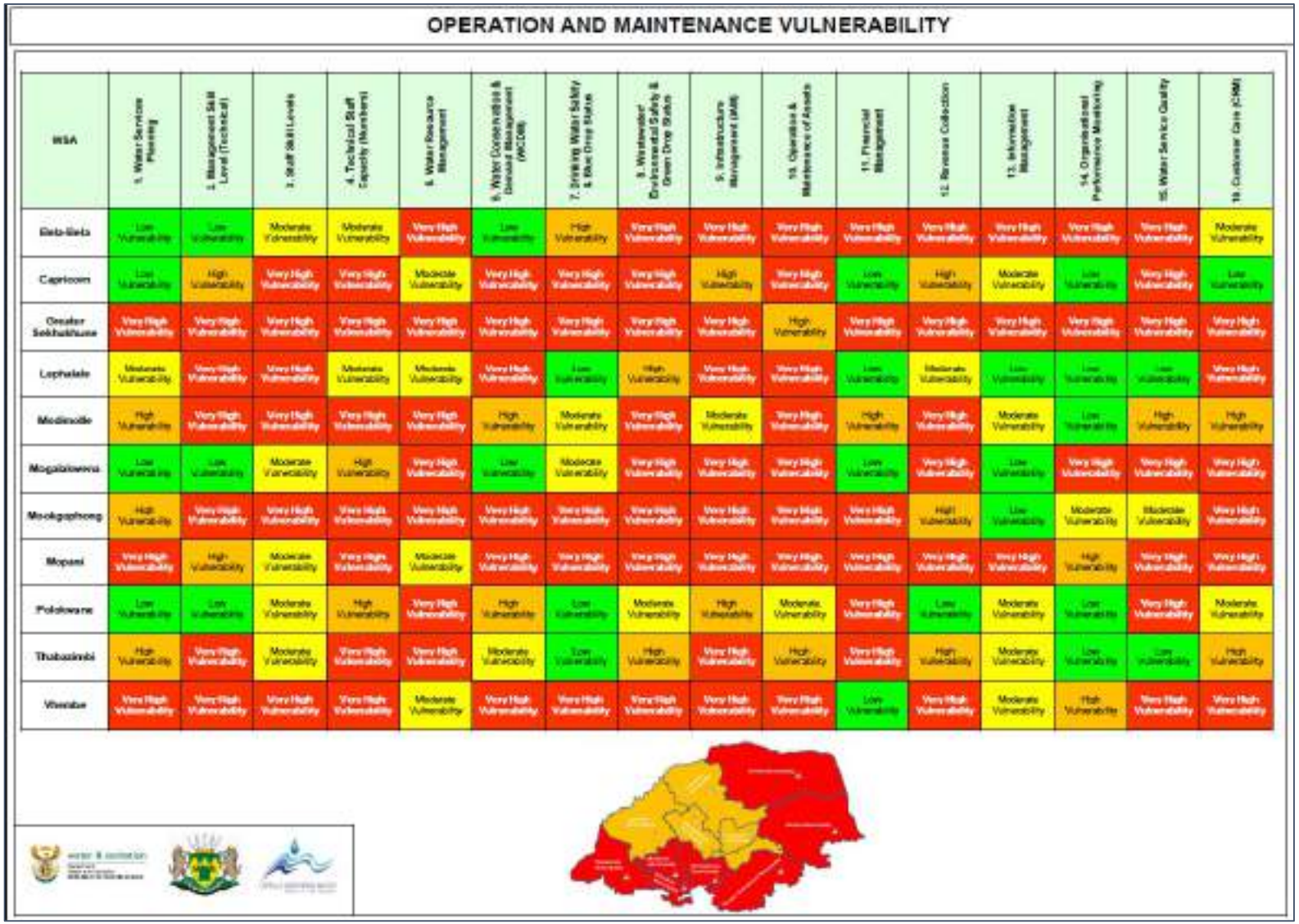


Figure 82: Limpopo: vulnerability to operation and maintenance of assets

Source: Limpopo Provincial Water Master Plan, April 2016

It is clear that water and sanitation infrastructure in the Province is a major concern, and there are very few areas that are not currently affected. The issues are profound and varied, but the worst categories across all districts include: staff skills, technical staff capacity, water resource management, waste water/ environmental safety, infrastructure management, operation and maintenance of assets, revenue collection and customer care.

8.5.4 Electricity/Energy

Access to safe energy sources in our homes is the key to achieving sustainable development. The majority of the households in Limpopo primarily use electricity as their form of energy source. A total of 1,343,514 households (83.9% of Limpopo's total) access electricity by means of an in-house prepaid meter, and 120,005 households (7.5%) access electricity through an in-house conventional meter. A total of 90,464 (5.6%) households reported that they do not have access to electricity. Two districts are below the provincial average of 5.6%, namely Waterberg (12.3% or 25,967 households) and Sekhukhune (8.1% or 23,500 households). The proportion of households with access to electricity in the Province ranges from 73.0% to 98.6%.

According to the Integrated Resource Plan 2019 (IRP, 2019), electrification through non-grid connections has been effective in providing lighting and some power, but it is inappropriate for providing thermal energy for cooking and space heating. A significant thermal energy load still needs to be provided for, by providing solutions side-by-side with off-grid technologies, particularly in those areas that are too remote to build grid-based infrastructure. Off-grid electricity sources are not efficient carriers for meeting the thermal load related to cooking, space and water heating. The cost of providing a grid connection has increased, as the areas being serviced are becoming more remote. There is therefore a need to quantify the off-grid and micro-grid opportunities and put in place the necessary frameworks for accelerated development.

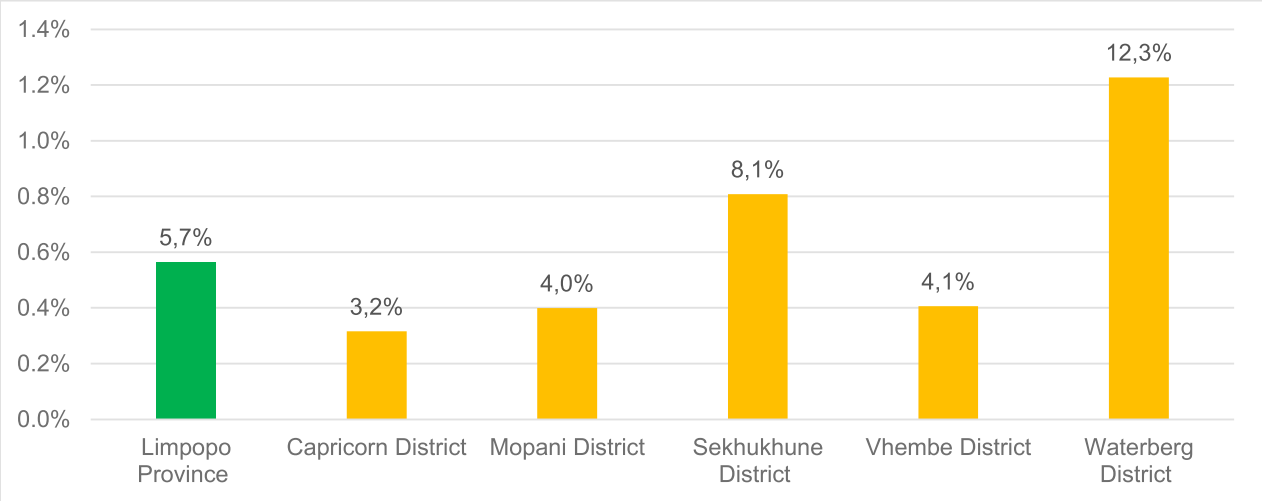


Figure 83: Limpopo: percentage of households with no access to electricity, 2016
Source: StatsSA, Community Survey 2016

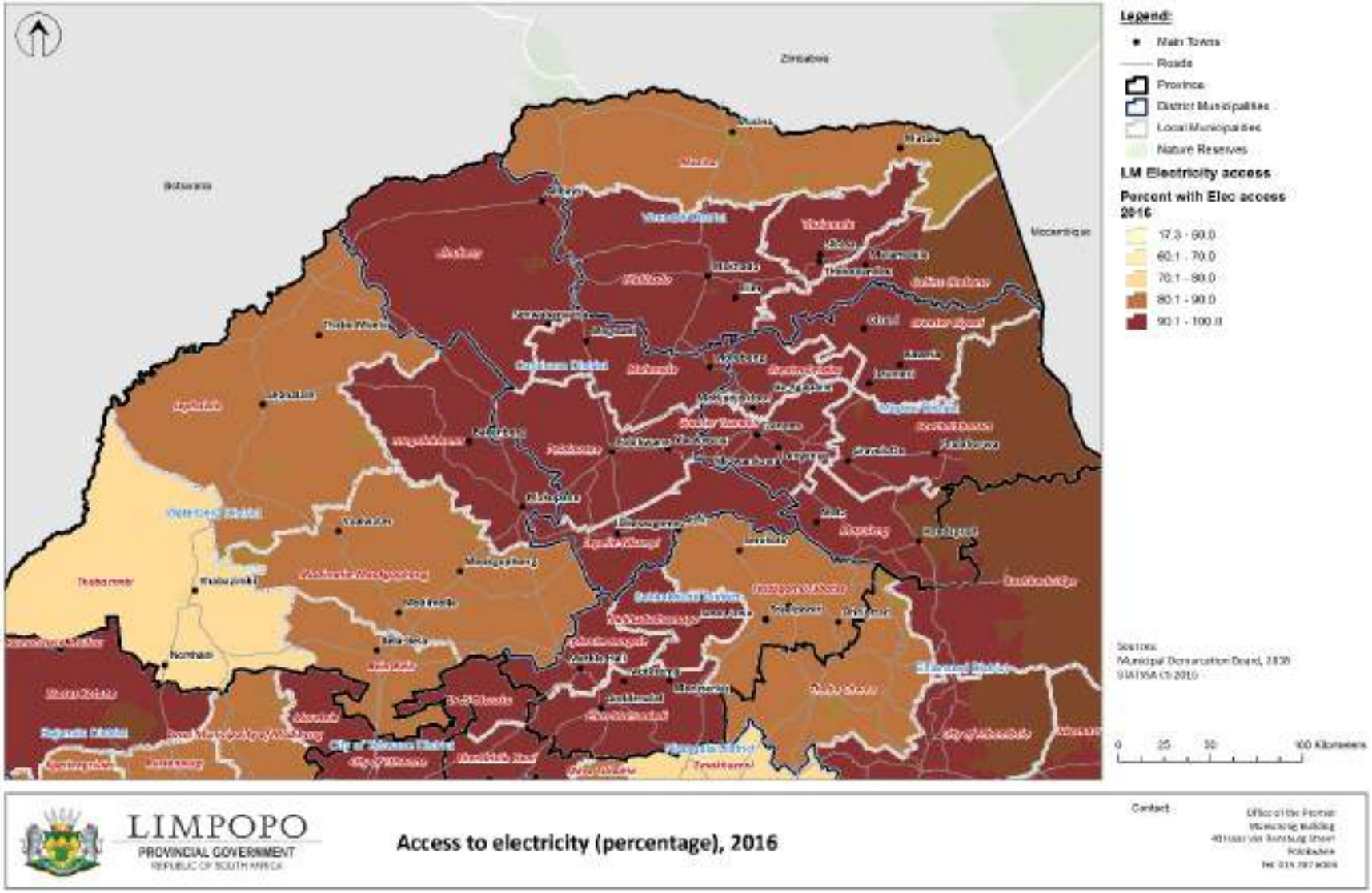


Figure 84: Limpopo: percentage of households with access to electricity, 2016

Source: Municipal Demarcation Board 2018; StatsSA, Community Survey 2016

The main supply of electricity in Limpopo (refer to Figure 85) is through the Eskom prepaid system that supplies electricity to 1,184,457 households (81.4% of Limpopo's total), followed by the municipality prepaid system that supplies electricity to 197,879 households (13.6%).

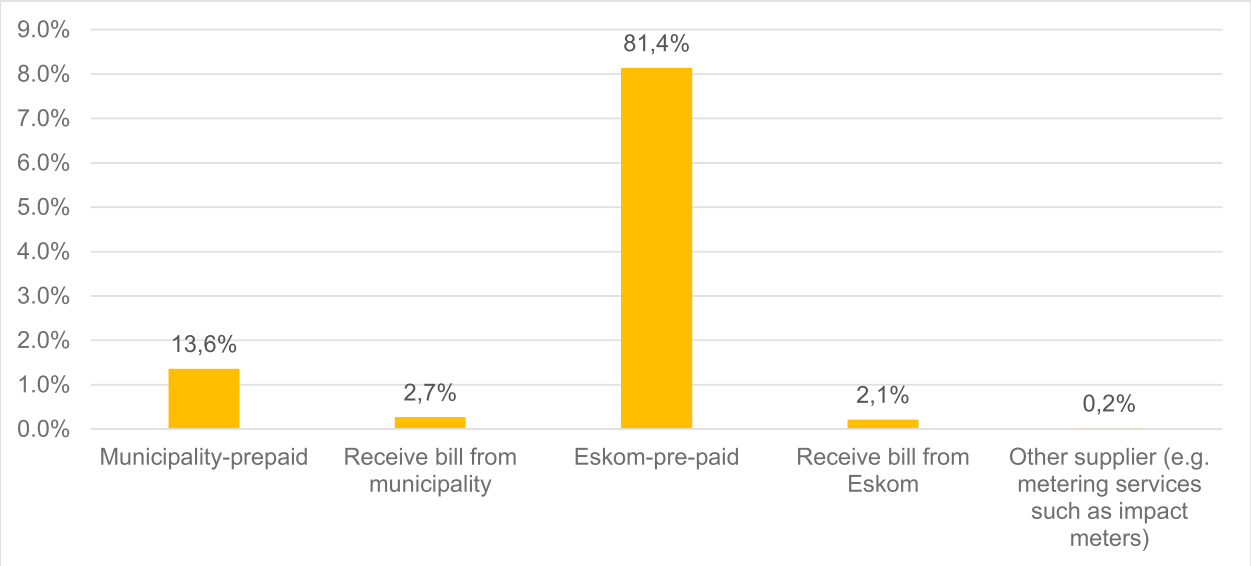


Figure 85: Main supply of electricity in Limpopo, 2016
Source: StatsSA, Community Survey 2016

The electricity grid covers most areas of the Limpopo Province. There is continuous pressure on local networks and systems, not only due to electricity shortages, but also due to improper asset management practices over the past two decades. These factors place supply at risk and should be considered in long-term housing and service delivery strategies.

Most municipalities struggle to keep abreast with payment for bulk electricity purchases from Eskom. The fiscal framework for some municipalities, particularly municipalities that are more rural in nature, is unviable, posing a serious risk to their financial sustainability. The non-payment of electricity, including the theft of distribution infrastructure (copper and cables) and poor credit control systems, requires urgent attention. The Department of Co-operative Government and Traditional Affairs (COGTA) leads an initiative to support municipalities to turn this around (IRP 2019).

Distributed generation through biomass, biogas and municipal waste are areas with great latent potential for improving municipal revenues. All municipalities have sites for processing waste and sewer outfall sites. Technologies are available for these resources to be added to the generation mix at sub-utility scale. Most small-scale generation technologies have low capacity factors, meaning that typically, the power is not generated throughout the day and night. For a balanced and safe interconnected power system to be operated sustainably, the intermittent power generators need to be integrated and controlled through smart technologies. The IRP 2019 already makes provision for distributed generation. This is intended to allow for power generation embedded within municipal distribution networks and therefore to diversify their supply base.

Clean Energy and Energy Efficiency is one of the key focus areas in the Limpopo Green Economy Plan 2013. According to Community Survey 2016 data, the main energy efficiency measures by households in Limpopo include switching off lights when leaving home (implemented by 96.0% of households), switching off appliances (implemented by 87.5% of households), followed by using energy-saving light bulbs and switching off all lights except security lights (implemented by 86.7% and 82.9% households, respectively). Installation of a solar water geyser and insulating the household geyser and hot pipes, are the least energy-saving measures (implemented by 36.8% and 36.7% of households, respectively). Energy security is a major component in the implementation of the Limpopo Development Plan.

8.5.5 Refuse removal

Waste management service delivery, including refuse removal, refuse dumps and solid waste disposal, is a development priority. According to Community Survey 2016 data, a total of 350,678 households (21.9%) in Limpopo have their refuse removed by the local authority/private company/community members at least once a week, while 22,326 (1.4%) have their refuse removed by the local authority/private company/community members less often than once a week. A total of 1,058,910 households (66.1%) in Limpopo use their own refuse dump. Overall, 90,396 households (5.6%) reported that they do not have refuse disposal services and therefore resort to discarding rubbish anywhere.

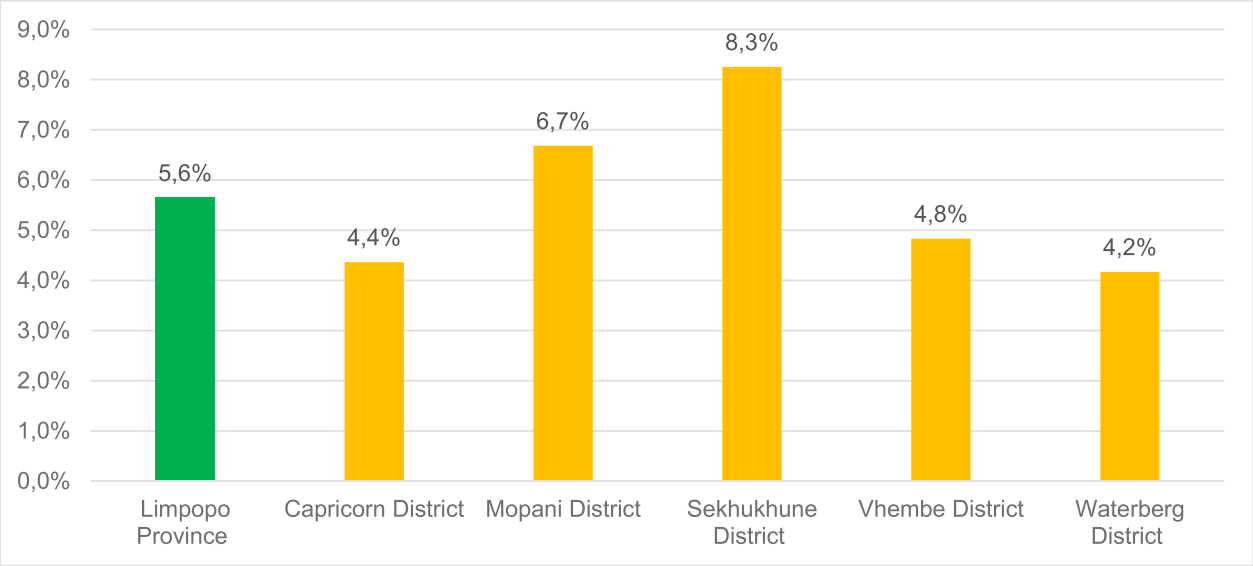


Figure 86: Limpopo: prevalence of households with no refuse removal facilities by district, 2016
Source: StatsSA, Community Survey 2016

Limpopo has a higher proportion of households (5.6%) without refuse removal, as compared to the rest of South Africa (4.0%). The Sekhukhune District Municipality recorded the highest proportion of households without access to refuse removal, at 8.3%, followed by the Mopani and Vhembe District Municipalities at 6.7% and 4.8%, respectively.

8.5.6 Internet

By comparison, access to the internet (refer to Figure 87) is a significant problem, especially when considering the extent of the youth and unemployed population in the Province. A great deal is being made of the 4th Industrial Revolution (4IR) and the potential it holds, but this will not be possible in an environment where internet access is poor. This would significantly hamper the opportunities for the youth to skill themselves, or to access remote education opportunities, especially when considering the rural areas where accessibility to higher-level education might be a challenge.

Refer to Section 8.1.13 for more information regarding the ICT network, as well as 4IR potential within the Province.

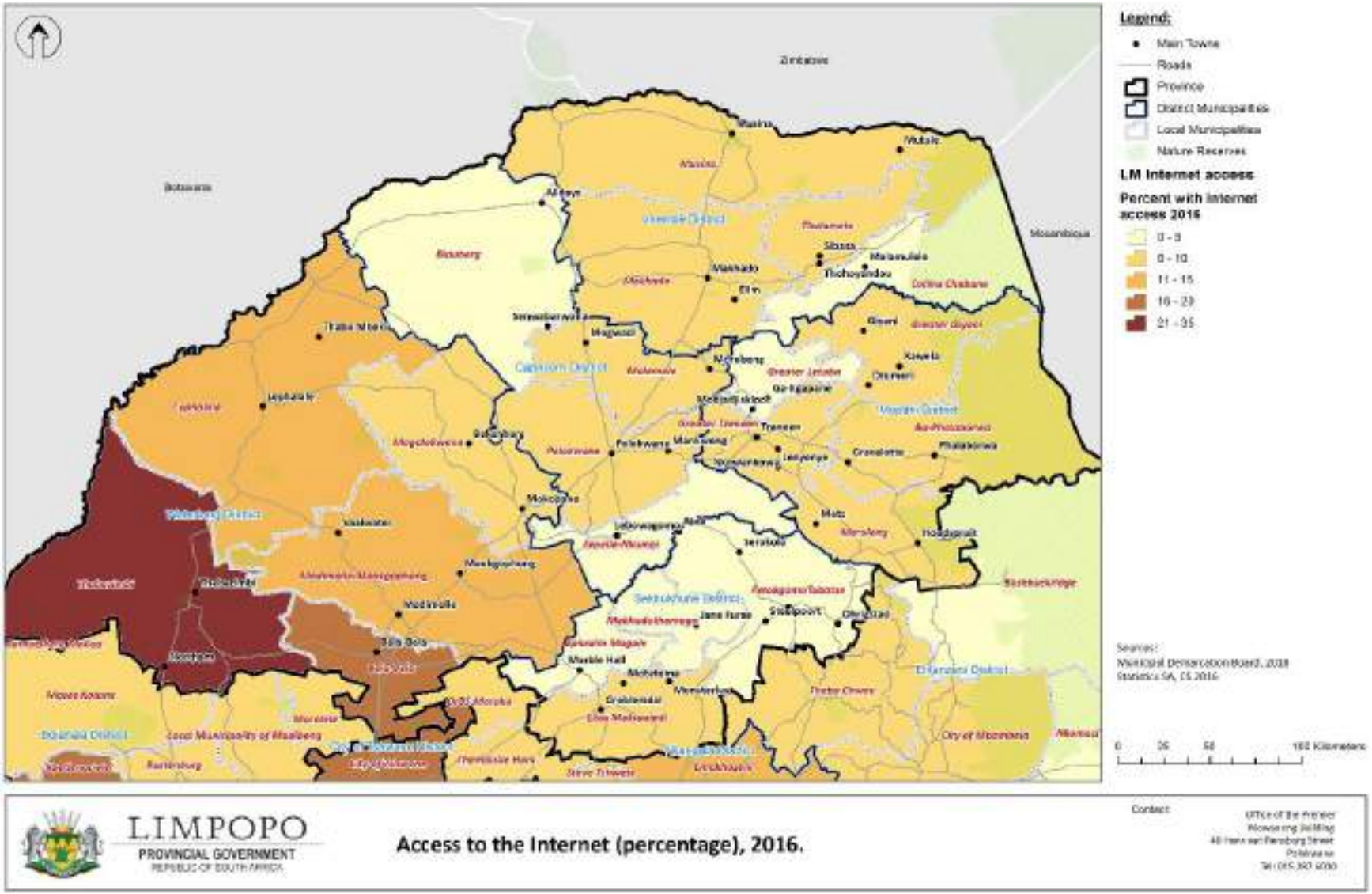


Figure 87: Limpopo: percentage of households with access to the internet, 2016

Source: StatsSA,Community Survey 2016

8.5.7 Roads and transport

The transport infrastructure in the Limpopo Province consists of road and rail networks, as well as airports. The main transport infrastructure of the Province is shown in Figure 88.

8.5.7.1 Road network

The Province's road network consists of the following:

- National roads that are managed and operated by the South African National Roads Agency SOC Limited (SANRAL), except for some sections of the N1 which are operated by Bakwena on a concession
- Provincial roads managed by the Roads Agency Limpopo (RAL)
- Local roads (including district roads and urban streets comprising of district collector, distributor and access roads) managed by the district municipalities and local municipalities[3]

The average traffic per functional road class is shown in Table 35, whilst the average daily traffic (ADT) and average daily truck traffic (ADTT) is depicted in Figure 89 and Figure 90 respectively.

Table 35: Limpopo: traffic per functional class

Functional class	Average daily traffic (ADT)	% heavy vehicles
National (BAKWENA)	16,677	17.6%
National (SANRAL)	3,443	12.3%
Regional distributor	3,252	14.1%
District distributor	1,267	16.0%
District collector	442	0%
Access road	201	0%

Source: RAL 2016; SANRAL 2018

Limpopo's road network consists of some 24,000km of roads, of which almost 14,000 are gravel roads. The condition of both the paved roads, in terms of visual and structural condition, and the gravel roads, deteriorated significantly in the period between 2012 to 2016. The extent of roads in a good and very good condition decreased, and the majority of roads were reportedly in a very poor, poor or fair condition in 2016.

Main issues and concerns related to the road network are:

- Deterioration in condition of the road network
- High number of road accidents on some portions of the N1 during recent years
- Need to ensure proper accommodation of through-traffic on the N1 in particular, which carries high numbers of cross-border traffic to/from Gauteng and the ports of Richards Bay and Durban
- Provincial and rural roads are under-developed and lack sufficient funding
- There is a need to upgrade unpaved roads to a paved surface and priority should be afforded to roads with high traffic, where the economic benefits warrant such upgrade
- National and provincial roads are utilised for freight movements linking South Africa with neighbouring countries but excessive overloading of vehicles is causing unaffordable damage to road infrastructure, and traffic control capacities need to be strengthened

[3] The local and district municipalities often do not have the capacity to maintain the district roads and therefore the departmental maintenance teams are still maintaining these roads.

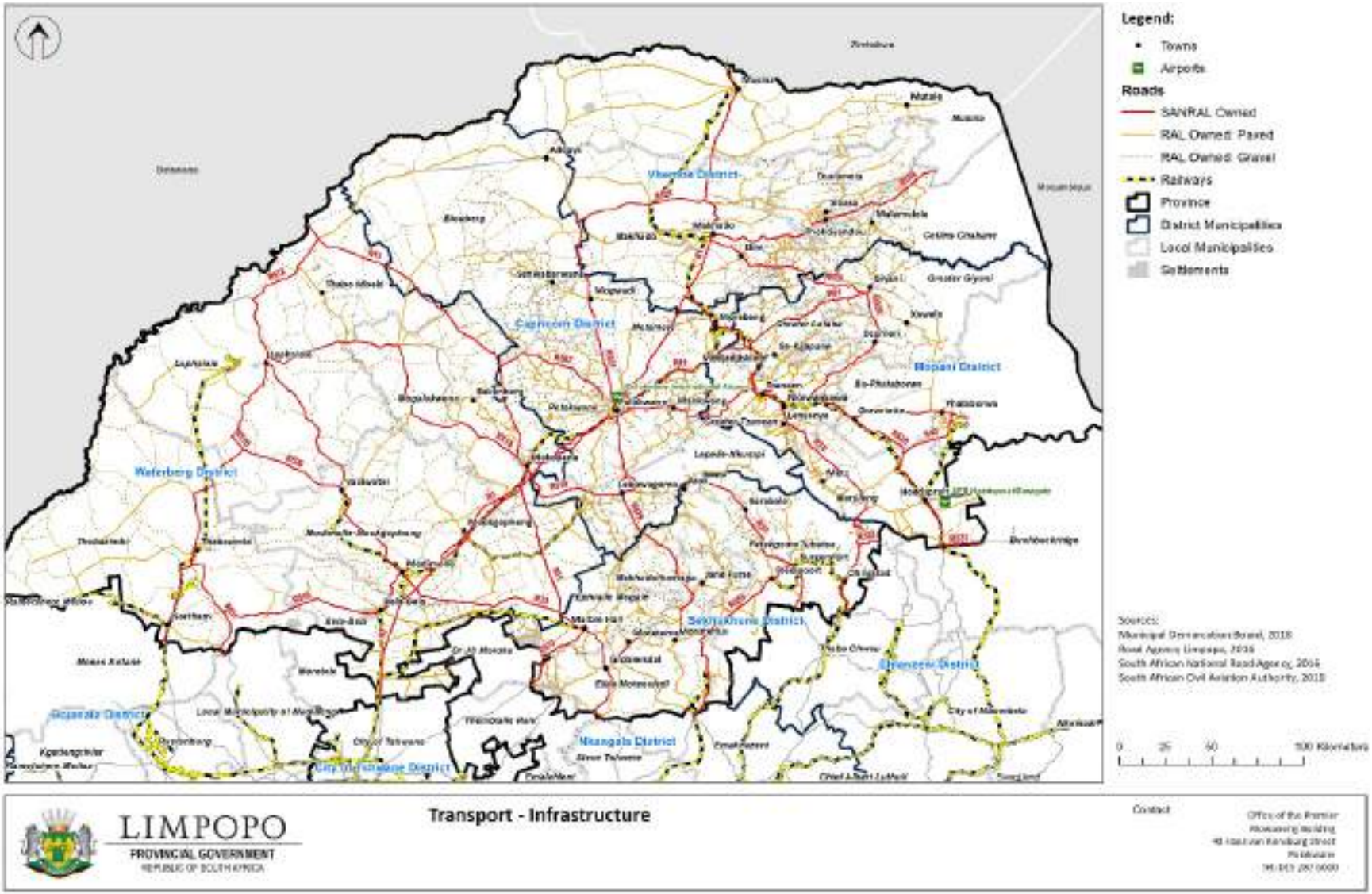


Figure 88: Main transport infrastructure network of Limpopo Province, 2016

Sources: RAL 2016, Municipal Demarcation Board 2018, RAL 2016, South African Civil Aviation Authority 2019

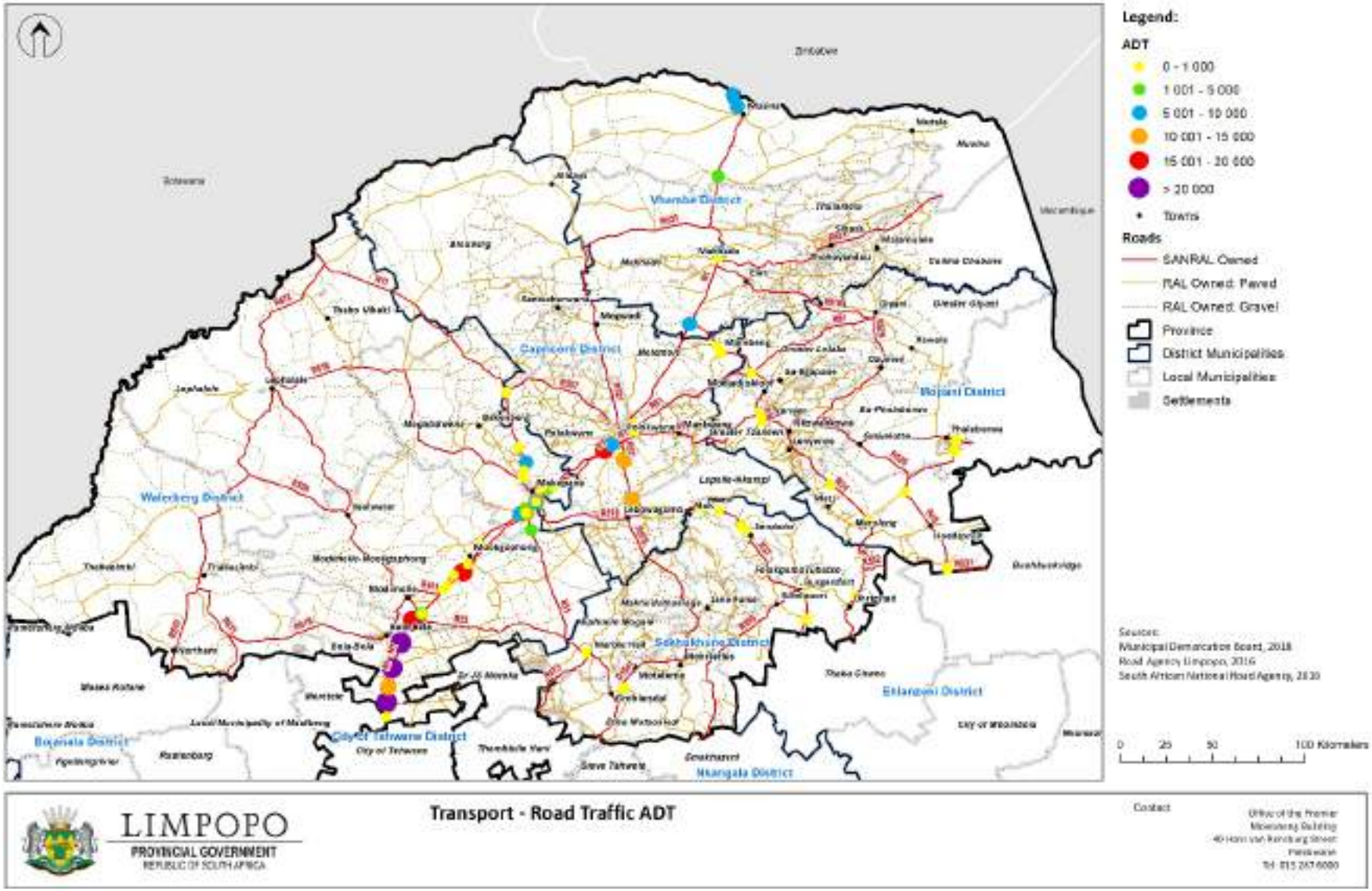


Figure 89: Average daily traffic (ADT) in Limpopo Province, 2016

Sources: SANRAL 2016, RAL 2016; Municipal Demarcation Board 2018

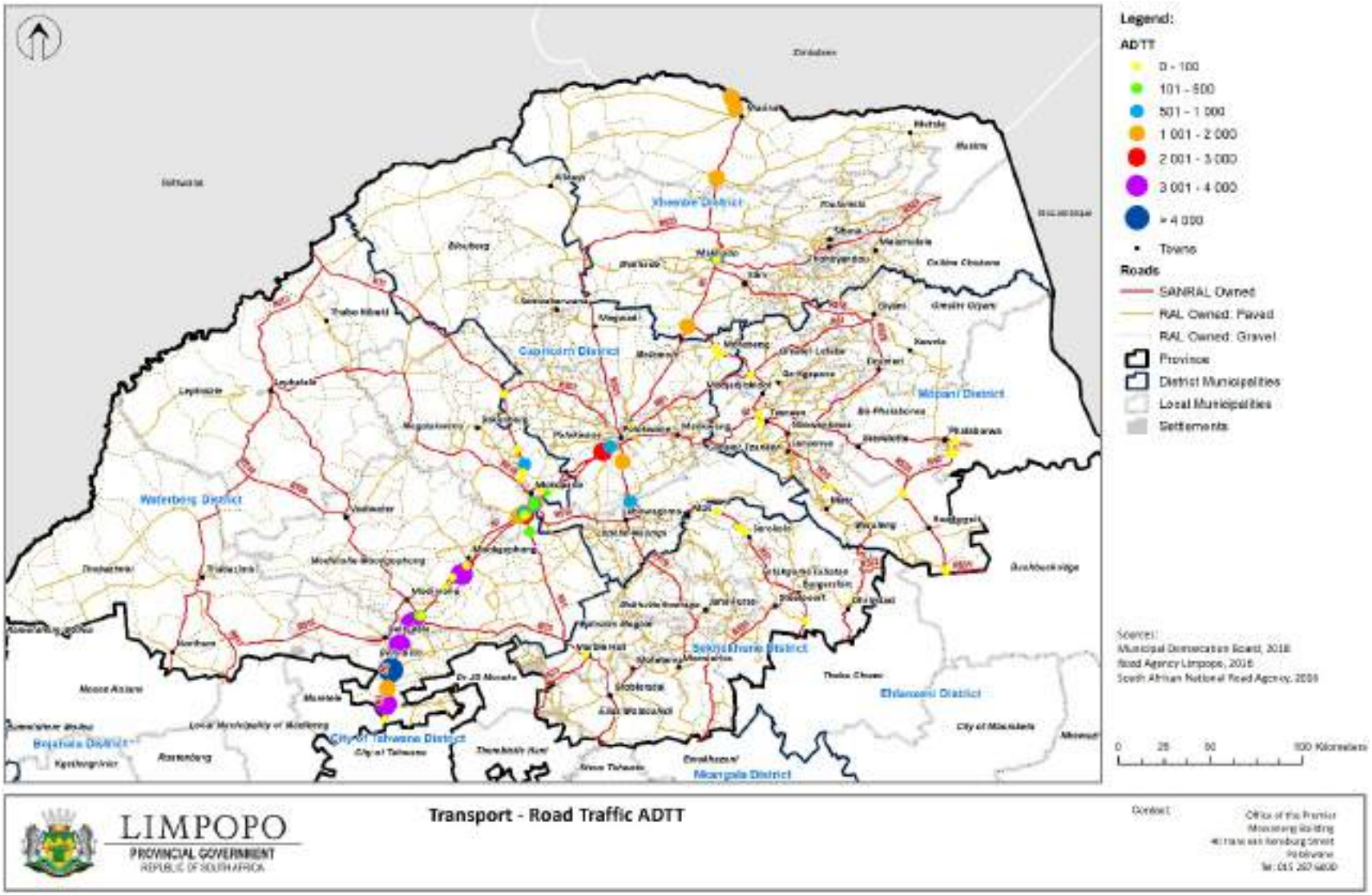


Figure 90: Average daily truck traffic (ADTT) in Limpopo Province, 2016

Sources: SANRAL 2016; RAL 2016; Municipal Demarcation Board 2018

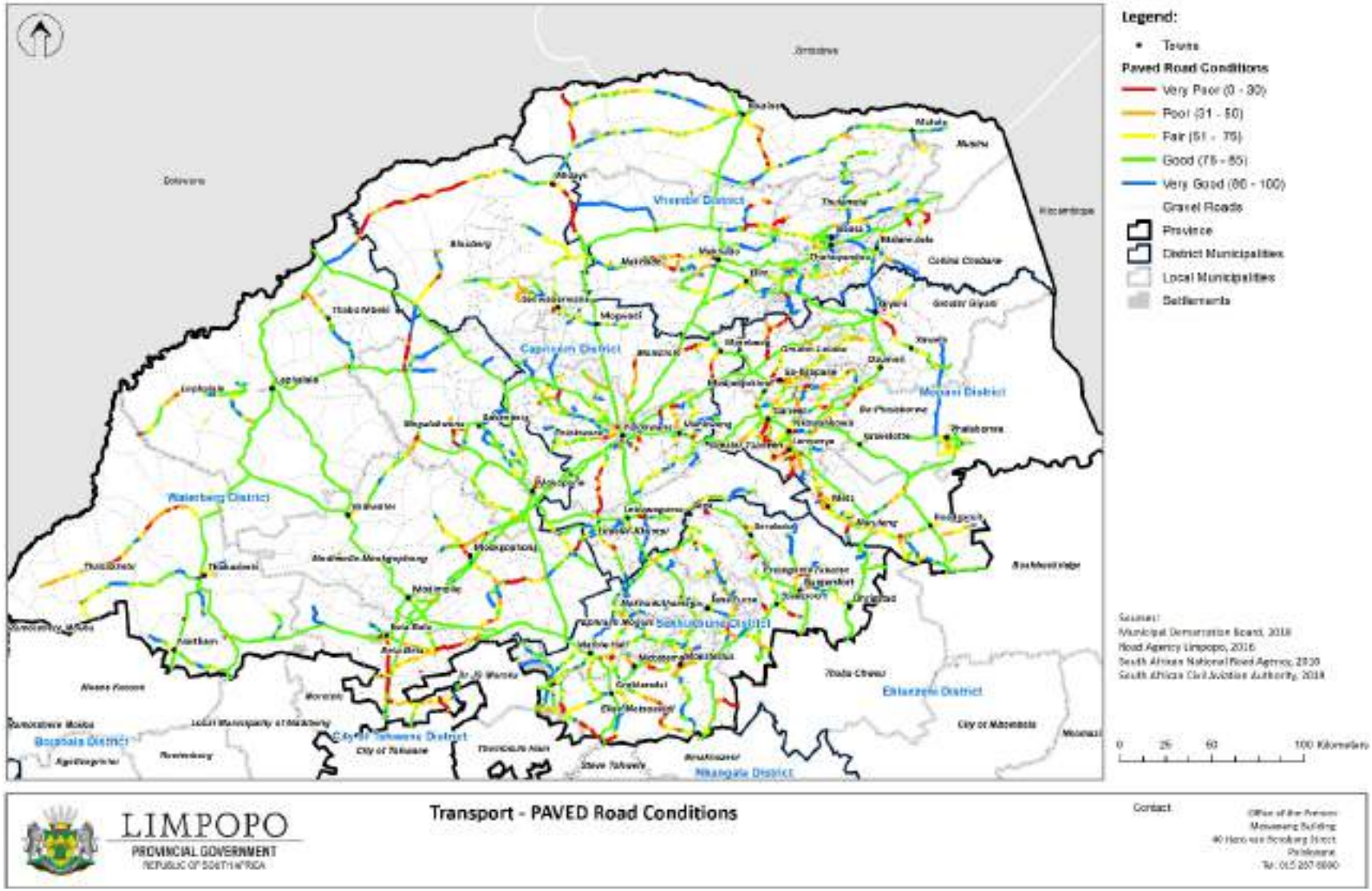


Figure 91: Road condition of paved network in Limpopo Province, 2016

Sources: SANRAL 2016, RAL 2016; Municipal Demarcation Board 2018; South African Civil Aviation Authority 2019

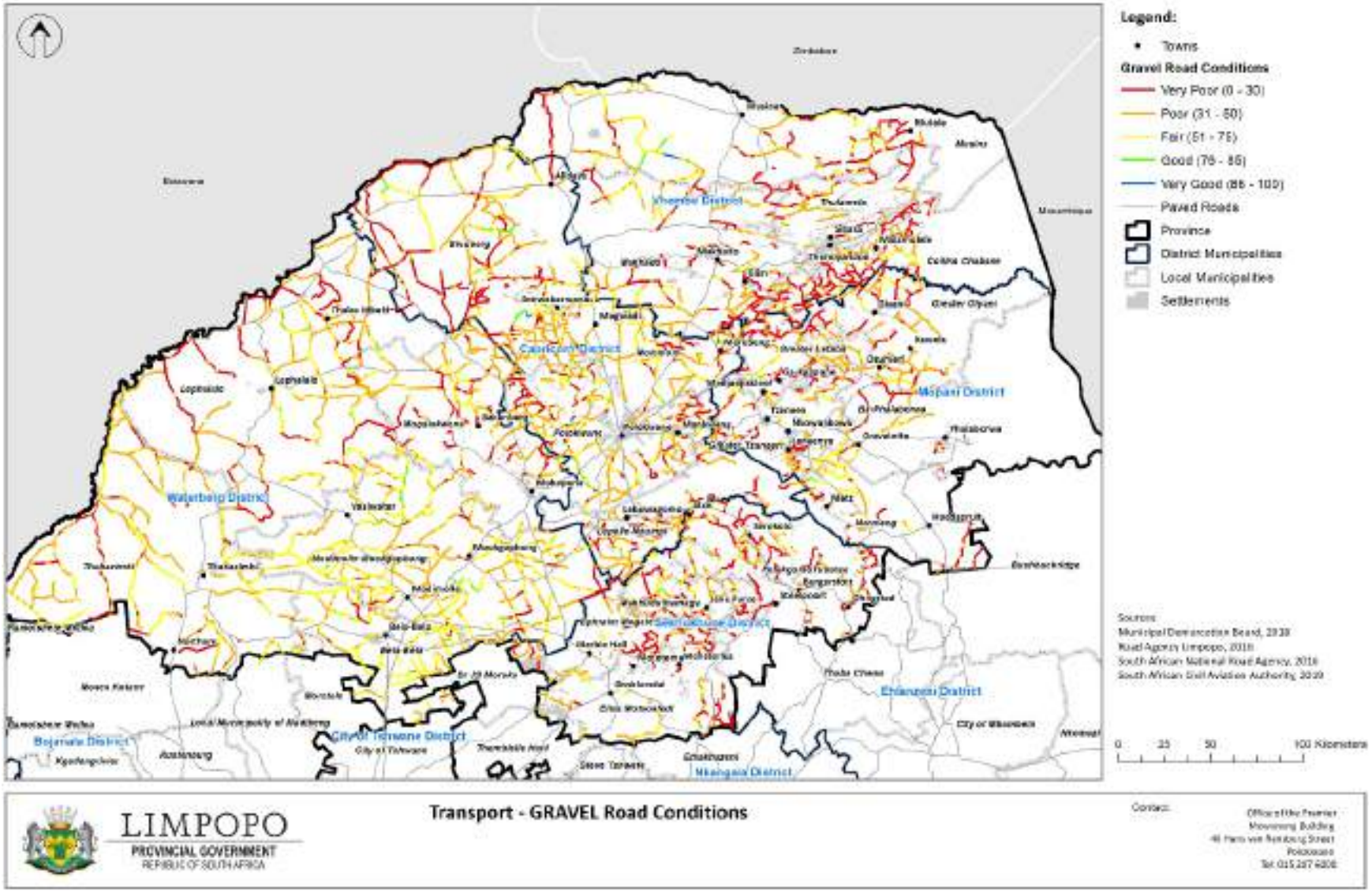


Figure 92: Road condition of unpaved network in Limpopo Province, 2016

Sources: SANRAL 2016, RAL 2016; Municipal Demarcation Board 2018; South African Civil Aviation Authority 2019

A project that is imperative from a road safety point of view is:

- Upgrade of the Moloto road (linking Gauteng, Limpopo and Mpumalanga Provinces) through traffic calming features, closing of illegal access routes, provision of proper fencing and new pedestrian walkways

The following key projects were identified in the SANRAL Integrated Report, which address some of the concerns highlighted above and it include the Strategic Infrastructure Projects (SIP) gazetted:

- SIP 21c: N1 Polokwane Eastern Ring Road Phase 2 which involves the upgrading of the Polokwane ring road to a dual carriage freeway
- SIP 21b: Construction of new ring road at Musina as part of the N1 to facilitate cross-border traffic (this project is currently in progress)
- Improvement of the R573 from Siyabuswa to Marble Hall

SANRAL further plans a number of routine road maintenance, resurfacing, rehabilitation and upgrade projects on the R555, R37, N11 and N1 roads within the Limpopo Province. The current status of these projects varies from the planning stage to the construction stage.

RAL has 24 upgrading projects on strategic roads to villages, agricultural premises, special economic zones, tourism locations and mining industries. The local communities, in the areas where projects are implemented, benefit from the construction of the roads in the form of SMME development and labour training.

Key road projects that were identified in 2012 as part of the Limpopo Freight Databank, include the following:

- Construction of R33 road through Modimolle to Lephalale for the improvement of the east-west corridor
- Identified lane additions on a number of sections, on the 2030 and 2050 horizon, including:

  2030:
  - R510 Section between Limpopo/North West Province border and R572 junction
  - N1 Section between R36 junction and Makhado
  - N1 Section between Makhado and R525 junction and at Musina
  - R71 Section between Moria and Tzaneen
  - R37 between Lebowakgomo and Burgersfort
  - N11 Section through Mokopane and at R516 intersection crossing

  2050:
  - R523 Section between R521 and R524
  - Balance of R524 Section between Makhado and Thohoyandou
  - Local Sections of R36 (Tzaneen); R71 (Phalaborwa); R81 (Giyani)
  - R525 Section in Sekhukhune
  - R33 Section between N1 and Modimolle
  - R101 Section between Gauteng North (Hammanskraal) and Bela-Bela
  - N1 Section between Gauteng North (Caroussel Plaza) and Bela-Bela

8.5.7.2 Rail network

The three important rail lines within the province include:

- The Pyramid South (Pretoria) to Beitbridge line
- The branch from Pyramid South to Lephalale serving coal, iron ore and chrome mines
- The arterial line from Groenbult on the Beitbridge line, running south-eastwards to the Maputo line at Kaapmuiden, serving the Tzaneen and Letsitele agricultural area in the north and the mining area on the Phalaborwa branch in the south

The current rail network generally consists of a 20-ton per axle line.

Demand on the Musina to Pyramid line in 2015 was in the order of 4 million tonnes for the year. Goods transported into Gauteng comprises mainly coal and containers. In the opposite direction, fuel, containers and agricultural goods travel north from Gauteng.

The Groenbult to Kaapmuiden line in 2015 carried approximately 10 million tonnes for the year, with most of this being magnetite and rock phosphate from Phalaborwa to Richards Bay.

The Lephalale to Pyramid line in 2015 carried in the order of 85 million tonnes for the year, with most of this being coal from the Waterberg area to the power stations in Mpumalanga, and to Richards Bay for export.

Main issues and concerns related to the rail network are:

- Ensuring sufficient capacity for the growing demand along the rail lines
- Considering the introduction of a rail service along the Moloto Corridor to cater for the high commuting numbers between Limpopo and Mpumalanga, and Gauteng

As per the Limpopo Province Freight Databank and Transnet's long-term planning framework 2017, the following key projects were identified:

- Lephalale to Ermelo extension of the export coal line to the Waterberg coalfields
- Possible new line from the Waterberg coalfields to Richards Bay to adhere to the increased demand
- Possible link to Botswana, allowing the rail transport of coal from the Botswana coalfield to South Africa for consumption or export purposes
- The new Waterberg alignment will be constructed with a load-bearing capacity of 26t/axle, from the current 20t/axle
- The new alignment from Waterberg to Ermelo will be installed with 25kV AC traction

With regards to passenger rail services, the following is envisaged:

- Regional passenger rail system: Moloto Corridor
- Pretoria-Polokwane high speed rail

8.5.7.3 Airports

Polokwane International Airport
The Polokwane International Airport is located approximately 5km north of Polokwane. The airport has scheduled flights to and from Johannesburg (one flight per day), using an Embraer ERJ 140 with a capacity of 44 passengers. The airport handles approximately 5,000 aircraft and 38,000 passengers per year.

The National Airports Development Plan (August 2015) identifies the following capacity capabilities/ constraints, and current and planned developments:

- Runway can only accommodate up to Code C aircraft
- New terminal building will address previous passenger handling constraints
- Limited public vehicle parking (100 bays, planned to expand to 640), which is less than the runway and passenger terminal capacity (may pose constraint in future if public transport is insufficient)

Eastgate Airport (Hoedspruit)
With its almost 4km long runway, this airport was earmarked for a NASA shuttle landing in the 1980s. Being a CAT5/7 airport, Hoedspruit Airport can accommodate any sized aircraft. The Eastgate Airport is currently being managed by a private company, and provides support services such as a terminal building, car rental, shops and restaurants, as well as ablution facilities.

It accommodates scheduled flights between Johannesburg and Cape Town, with one flight to and from each destination daily. Typical aircraft being used for these flights are the Embraer ERJ 190, with a capacity of 95 passengers, and the Embraer ERJ-135 (ER3) that has a capacity of 37 passengers.

The 2010 statistics shows that the Eastgate Airport handles in the order of 48,000 passengers (including both arriving and departing passengers) per annum. With the current flights and aircraft used on the route from Johannesburg to Hoedspruit, the airport has the capacity to handle an additional 10,000 to 11,000 arriving, and 10,000 to 11,000 departing, passengers. The airport mainly serves the foreign leisure market that visit the game lodges in the area, with very few local business travellers.

Both Polokwane International Airport and Eastgate Airport are shown in Figure 88.

The National Airports Development Plan (August 2015) identifies the following capacity constraints at Polokwane International Airport and Eastgate Airport:

- Runway can only accommodate up to Code C aircraft (at Polokwane)
- Limited passenger terminal capacity (around 550,000 passengers per annum) and apron capacity (at Polokwane)
- The South African Air Force limits the operational hours of the Eastgate Airport

For the Polokwane International Airport, the planned developments include:

- Resealing of apron
- Provision of cargo handling facilities (pre-feasibility study stage)

The National Airports Development Plan also states that there is a proposal to develop Polokwane International Airport into a logistical hub for passenger and freight.

The Limpopo Aviation strategy and implementation plan of 2010 foresees a potential new domestic route from Polokwane International Airport to Lanseria in the long term. It also foresees potential new regional routes to several capital cities. It furthermore foresees a potential new domestic route from Hoedspruit to Durban in the medium term, as well as potential new regional routes from Hoedspruit, to Vilanculos and Inhambane in Mozambique.

8.5.7.4 Public transport corridors

According to the 2013 Household Travel Survey, private car ownership in Limpopo is very low. Approximately two-thirds of households use either public transport or non-motorised transport. Minibus taxi is the prominent public transport mode, as 55% of all trips in the Province are made by minibus taxis, while bus trips account for about 12%, and rail trips only 0.4%. At the time that the survey was conducted, there were only long-distance rail services between Johannesburg and Musina, which have since been discontinued.

Because most of the population make use of minibus taxis, which are not subsidised, transport costs are high, and the percentage of household income spent on transport is therefore substantial. In addition, the dispersed land use pattern in the Province, with communities located remotely from economic nodes, does not support the development of an efficient and affordable transport system. As a result, people spend more time and money on travel.

Figure 93 shows the main public transport routes within the Limpopo Province, and routes linking to the surrounding provinces of Mpumalanga and North West, and across the border to Zimbabwe. Most of the public transport routes either converge in Polokwane, or link to the N1, originating from Musina (proceeding to Gauteng), Thohoyandou, Giyani, Phalaborwa via Tzaneen, Malemang, Wonderkop, Lephalale and Northam.

The Limpopo Spatial Framework 2016, indicates that high public transport passenger volumes were recorded between Lephalale and Thabazimbi (which runs parallel to the N1), and between Polokwane, Giyani and Thohoyandou (via Tzaneen). Significant passenger numbers also commute between Polokwane and Mogwadi (Dendron), between Tzaneen and Lulekani (Phalaborwa), and between Siyabuswa (Tshwane)-Dennilton (Groblersdal) and Siyabuswa-Marble Hall, respectively.

Public transport facilities in the Province include transfer facilities such as, bus termini, minibus taxi ranks, as well as facilities en route such as public transport halts and lay-byes. The general conditions of bus termini and minibus taxi ranks is poor, with few exceptions. En route transport facilities are very limited and, as such, public transport vehicles use road shoulders to pick up and drop off passengers (Limpopo Spatial Framework 2016).

The Limpopo Provincial Land Transport Framework (LSDF) outlines the following overarching issues regarding the transport system in the Limpopo Province:

- Generally, Limpopo Province's communities are very poor, unemployment is rife, car ownership is very low and the communities are, to a large extent, dependent on public transport, which is not equally subsidised by government (the taxi industry is still unsubsidised)
- The communities are sparsely populated in low-density areas, with little economic development that can provide employment, with the result that travelling time and distance to the workplace, and other destinations, is excessively long
- In the past, very little attention was given to densified development and integrated land use and transport developments
- Transport costs are high, and the percentage of household income spent on transport costs is unacceptable
- Mobility levels of the community is low and accessibility to the main economic activity areas is insufficient
- The bus industry, which is the mode of transport that can provide a scheduled and subsidised transport service, is weakened because of insufficient government funding and internal government capacities
- The taxi industry is well established, and its formalisation and subsidisation should be a priority

Public transport projects to be implemented between 2018 and 2025, based on the LSDF, are shown below in Table 36.

Table 36: Limpopo Province: public transport projects (2018 to 2025)

Project	Responsibility
Encourage modal integration and improve/establish 11 regional multi-modal transfer facilities at: Polokwane, Musina, Lephalale, Modimolle, Tubatse, Phalaborwa, Thohoyandou, Makhado, Giyani, Jane Furse, Northam	• SANRAL • Limpopo Roads and transport

4IR has the capability to improve public transport services in Limpopo, for example through improved monitoring systems, access to routing schedules and live locations, improved management and monitoring of onboard systems, active routing based on traffic conditions, congestion avoidance, accident response, etc.

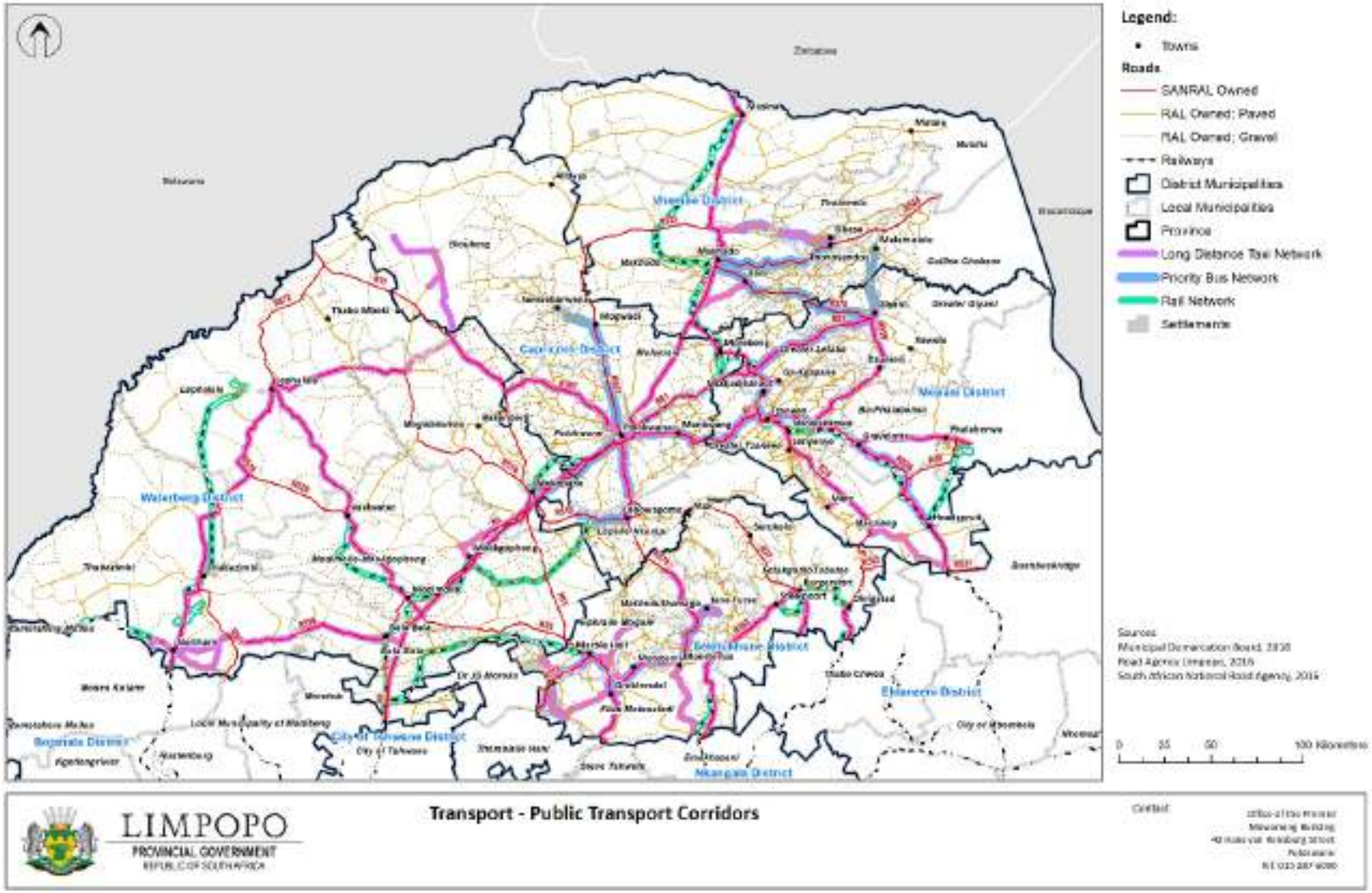


Figure 93: Public transport corridors in Limpopo Province

Sources: Limpopo Spatial Development Framework (LSDF) (Limpopo Rural and Land Development, 2016); Municipal Demarcation Board 2018, RAL 2016; SANRAL 2016

8.5.7.5 Freight corridors

A freight corridor is a co-ordinated bundle of transport and logistics infrastructure and services that facilitates multi-modal freight flows between major points of production and consumption, as well as major centres of economic activity. A freight corridor could either be road or rail, or a combination of both road and rail transport modes.

There are three primary national freight corridors that traverse Limpopo Province, namely:

- Lephalale-Ermelo-Richards Bay corridor (coal line)
- Phalaborwa-Richards Bay corridor (rail)
- Gauteng-Zimbabwe corridor (road and rail)

Lephalale – Ermelo – Richard's Bay Rail Corridor (coal line)
The Lephalale – Ermelo – Richard's Bay Corridor is a bulk export line for coal deposits in Limpopo and Mpumalanga. The coal system includes feeder lines from the Mpumalanga and Lephalale areas, to the domestic destinations of Richards Bay and Maputo, and include the proposed Swaziland link. The line predominantly carries export and domestic coal, as well as domestic iron ore to steel plants.

This corridor has been adopted as a geographic Strategic Integrated Project (SIP) in the National Infrastructure Plan for South Africa, commonly referred to as SIP 1: Unlocking the northern mineral belt with Waterberg as the catalyst.

Phalaborwa – Richards Bay Rail Corridor
The Phalaborwa – Richards Bay Corridor connects the eastern parts of Limpopo (specifically the town of Phalaborwa) to the port of Richards Bay, through Swaziland.

The line carries magnetite and rock phosphate from Phalaborwa, as well as some agricultural products and fuel.

Gauteng – Zimbabwe Corridor (North-South Regional Corridor)
The Gauteng – Zimbabwe Corridor (N1) links Gauteng with its northern neighbour Zimbabwe, through the border post of Beitbridge. This corridor also forms part of the North-South Regional Corridor, offering South Africa's landlocked northern neighbours, Zimbabwe, Zambia and the Democratic Republic of Congo (DRC), access to international markets through the port of Durban. The N1 corridor mainly transports fuel, spare parts and goods to Zimbabwe.

Other corridors that move freight within the Province include the N11, R37, R572 and R521.

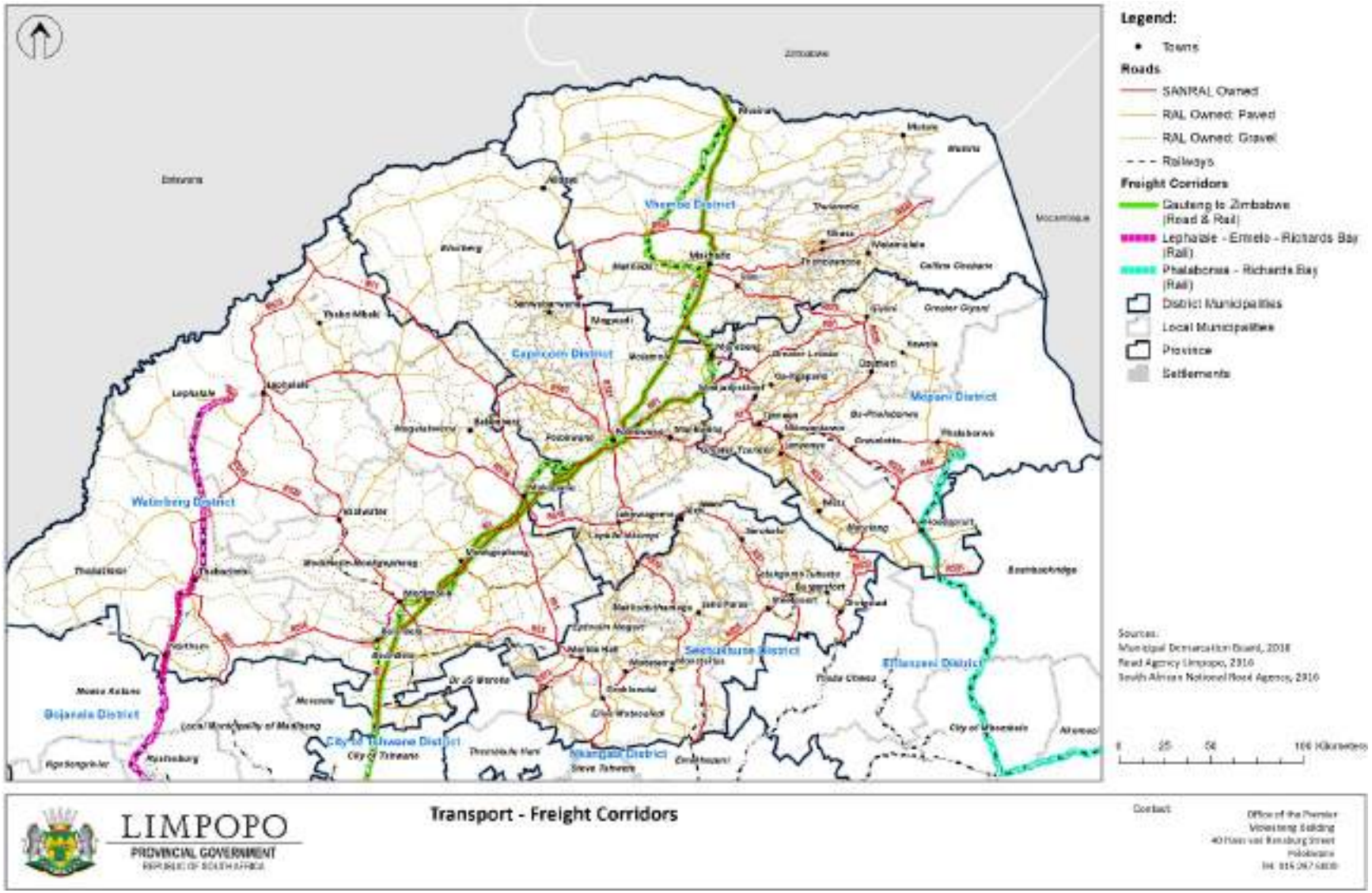


Figure 94: Freight corridors in the Limpopo Province

Sources: National Freight Databank (Department of Transport, 2015); Municipal Demarcations Board 2018; RAL 2016; SANRAL 2016

Freight cargo is predominantly moved by road in the Province, due to its speed of transporting commodities, convenience, security as compared to rail transport, and lack of capacity to handle general freight. The main freight corridor challenges that are experienced in Limpopo, are provided in Table 37 below.

Table 37: Freight corridor challenges in Limpopo Province

Category	Challenges
Road Freight	• Excessive overloading and the subsequent significant deterioration of the road network
	• Negative externalities including truck accidents, noise and air pollution
	• Poor road infrastructure due to lack of maintenance
Rail Freight	• Under-utilisation of rail infrastructure
	• Closure of some of the rail lines/stations in the Province that used to move freight commodities
	• Loss of market share by rail freight
Border post (Beitbridge and Groblersburg)	• Lack of standard documentation for SADC countries for Customs and Excise currency control
	• Long delays due to inefficient border post operations and insufficient personnel capacity to deal with traffic volumes
General	• Hijackings of freight vehicles while transporting commodities
	• Lack of designated hazmat routes within the Province, specifically bypass routes around main economic areas like Polokwane, Makopane, Modimolle and Tzaneen
Hubs	• Establish freight hubs at Musina, Polokwane, Groblersbrug, Lephalale, Ephraim Mogale, Tubatse, Steelpoort, Hoedspruit and Tzaneen

Key freight projects planned for the Limpopo Province, are the following:

- The construction of a new coal line to unlock coal deposits in the Waterberg
- Feasibility determination for, and project management of, the development of a multi-modal logistics hub in Polokwane
- One-stop border facility in Musina/Martins Drift (Groblersburg)
- Construction of the R33, between N1 intersection through Modimolle, to Lephalale, to improve development of east-west corridor

8.6 State of the Limpopo District and Local Government

The Limpopo Province has five district municipalities and 22 local municipalities. In terms of the Constitution, district municipalities are responsible for facilitating integrated development planning, capacity building and for supporting local municipalities. Furthermore, municipalities co-ordinate in matters such as administrative and political leadership stability, audit compliance, fiscal framework, expenditure management, revenue management and liquidity indicators. In terms on the Auditor General South Africa municipal audit findings, the issues detailed below were highlighted:

- Of 27 municipalities, one municipality registered a clean audit, namely the Capricorn District Municipality
- Six municipalities registered unqualified audits with findings, namely: the Waterberg District Municipality and the Local Municipalities of Makhuduthamaga, Greater Letaba, Maruleng, Molemole and Thulamela
- Sixteen municipalities registered qualified audit findings, namely: the Vhembe, Sekhukhune and Mopani District Municipalities, and the Local Municipalities of Collins Chabane, Ba-Phalaborwa, Bela-Bela, FetakgomoTubatse, Greater Giyani, Greater Tzaneen, Lepelle Nkumpi, Lephalale, Makhado, Musina, Elias Motsoaledi and Ephraim Mogale

8.6.1 Local government finance – the stark reality

The financial statements of completed municipal audits showed the following:

- In terms of revenue:
  - The total revenue (excluding equitable share and conditional grants) was R3,2 billion, but not all is recoverable
  - National government financed the municipalities through equitable share grants of R7,2 billion and conditional grants of R5,1 billion
- In terms of expenditure:
  - Salary and wages (including councillorss remuneration) is R4,8 billion
  - Goods and services are procured, but the suppliers are not paid within 30 days – the average creditor payment period was 187 days
  - Fruitless and wasteful expenditure increased significantly from R65 million to R217 million
  - Unauthorised expenditure increased from R1,4 billion to R1,6 billion
  - Annual irregular expenditure significantly increased from R1,2 billion to R2,1 billion
- In terms of net results:
  - 22% of municipalities ended the year in a deficit (expenditure was more than revenue)
  - The total deficit of the Limpopo Local Government was R181 million
- In terms of balance sheet:
  - The total creditor value at year–end was R4, 8 billion and the cash available at year–end was R2,4 billion
  - The creditor value is greater than available cash at year-end for 74% of the municipalities
  - The following year's budget will pay for expenditure of the previous year(s), and for 25% of the municipalities it will be more than half of their budgets
  - An average of 25% of municipal debtor value is not recoverable and at least for six municipalities, more than 80% cannot be recovered
  - Nine municipalities are in a vulnerable financial position
  - Eskom outstanding debt stands at R1,08 billion, while Water Boards' outstanding debt is staggering at R2,05 billion
- Over-reliance on consultants for financial reporting:
  - 26 municipalities used consultants for financial reporting services at a cost of R249 million (2017-18: R179 million) with the exception of the Makhuduthamaga Local Municipality. R246 million (99%) of financial reporting consultant costs were as a result of a combination of a lack of skills and/ vacancies in the financial units of municipalities
  - 96% of the financial statements submitted for audit included material misstatements in areas in which consultants did not work
- Post-VBS Bank losses: The Province lost R1,2 billion in funds that were invested with VBS Bank
- Governance structures:
  - Audit committees are functioning in most municipalities, capacitated with appropriate diverse skills to properly guide internal audits and provide relevant recommendations to management
  - Internal audit units are established, or services outsourced. The Province spent R74 million on internal auditors, yet findings and recommendations are not actioned timeously by management
  - Municipal Public Accounts Committees (MPACs) were not adequately capacitated and there was still uncertainty as to their roles, which impacted their oversight role
  - Nine MPACs did not investigate irregular, unauthorised and/or fruitless and wasteful expenditure
  - In some cases, councillors have a vested interest in the supply chain-related irregular expenditure, which results in their failure to deal decisively with this
  - As per the Premier's instruction, Mayors chaired Audit Steering Committee meetings, and this was enforced by the Member of the Executive Council (MEC) responsible for local government which had a positive impact on outcomes
  - Leadership must strive to ensure that services are delivered, that money is spent wisely and responsibly, and that each and every cent can be accounted for

Moreover, the capacity of the state to deliver, was constricted by restricted fiscal conditions evidenced by increased borrowing costs which had an effect of tightened fiscal transfers to provinces and constrained capital funding of new projects, as detailed in the 2018/19 Medium-Term Expenditure Framework (MTEF). Periodic monitoring and evaluations reports reveal that project and contract management skills within government need

to be honed, outsourcing of services be conducted in a cost-effective manner, corruption and maladministration, perceived or real, must be uprooted, and the administration must make headway towards impactful socio-economic development.

8.6.2 District Development Model

In a quest for improved local governance, the 2019 Presidency Budget Speech ushered in the implementation of the District Development Model (DDM) to strengthen integrated planning, co-ordinated resource allocation, spatial targeting and transformation. Continuous monitoring and evaluation is an integral component part of DDM, and it is designed to ensure that service delivery is enhanced to make an impact in improving the lives of the people.

The DDM further deals with co-operative governance, which seeks to ensure an integrated, district-based, approach, aimed at fast-tracking service delivery and to enhance adequate co-ordinated support and resources of municipalities in order to carry out their mandate. The DDM aims to improve coherence and impact of government service delivery with a focus on 44 districts and eight metros around the country, as development spaces that can be used as centres of service delivery and economic development, including job creation. The Waterberg District is one of three Presidential pilots, together with the rural OR Tambo District Municipality in the Eastern Cape and the eThekwini (Durban) Metropolitan Municipality. Sekhukhune and Mopani districts were further pronounced as part of 23 additional districts earmarked for targeted support by national and provincial government. The model contributes to the achievements of the seven MTSF Apex Priorities announced by the President in the SoNA 2019.

9 PREDICTED IMPACT OF COVID-19 ON LIMPOPO PROVINCE

9.1 Global economic outlook

In the last quarter of 2019, the South African economy experienced a technical recession, as the economy decreased by -1.4%, following a decline of -0.8% in the preceding quarter. With the latest statistical release for 2018, the Limpopo economy also slowed down by 0.6% from 2.1% in 2017.

The COVID-19 has resulted in a slowdown of the global economy. Countries have applied various measures to stem the tide of the pandemic. South Africa, like many other countries imposed a national lockdown, coupled with closure of most ports of entry, to limit the infection rate and flatten the curve. During the different levels of lockdown since 27 March 2020, each industry in South Africa was allowed to operate at some level of capacity, varying from 0% (hair dressing services) to 100% (electricity supply).

The measures against COVID-19 do unfortunately impact negatively on the economy everywhere in the world. The combined effects of COVID-19 and the recession will be a double-edged sword for the South African economy.

Before the COVID-19 pandemic, the long-term global outlook appeared positive, but it is expected that COVID-19 will have a negative impact in the short to medium growth outlook. According to the International Monetary Fund forecast, the global economy will contract by -3.1% in 2020, from an initial expected growth of 2.9% in 2019, before recovering again to 5.1% by the end of 2020. The Advanced and Emerging Market Economies are expected to contract to -6.1% and -1.0% in 2020, respectively. China, that has been a growth engine of the world for more than a decade is also expected to decline, and the growth outlook has been revised from 6.1% to 4.8%.

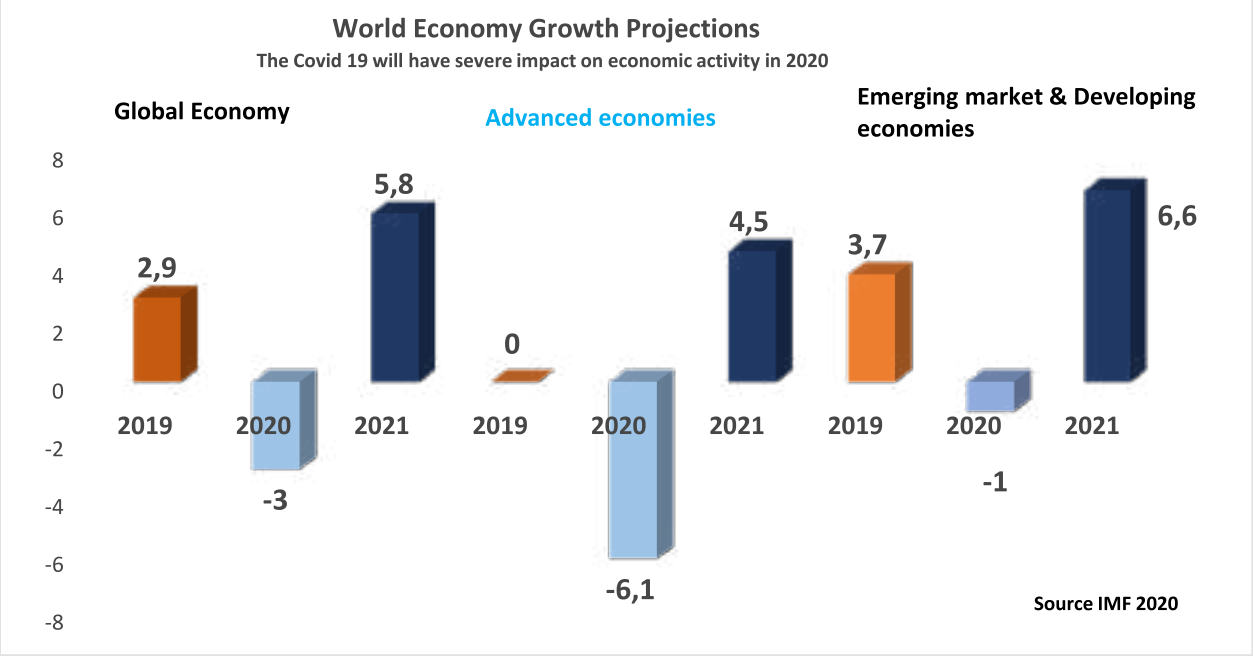


Figure 95: The impact of COVID-19 on the global economic outlook
Source: OECD Economic Outlook, 2020

It is expected that resource-intensive countries/economies, tourism-dependent countries and oil exporters will be the most affected. The majority of African economies fall within these categories. From Figure 95, the IMF

has forecasted that in 2020, tourism-dependent countries will contract by -5%, whilst resource-intensive sectors and oil exporters will contract by -3%.

9.2 National economic outlook

The Sub-Saharan African economy is forecast to decline by -1.6%, whilst South Africa's short-term economic outlook remains bleak as a result of the impact of COVID-19, with a recession in the last two quarters of 2019 and a sovereign credit downgrade by all three major credit rating agencies. It is now projected that South Africa will experience a decline (recession) of -6.1% in 2020.

South Africa and the Limpopo Province's economies are dependent on extractive industries and tourism. It is expected that the impact from the reduced export demand, and reduction in both international and domestic tourists, will be felt in the economy for a foreseeable period.

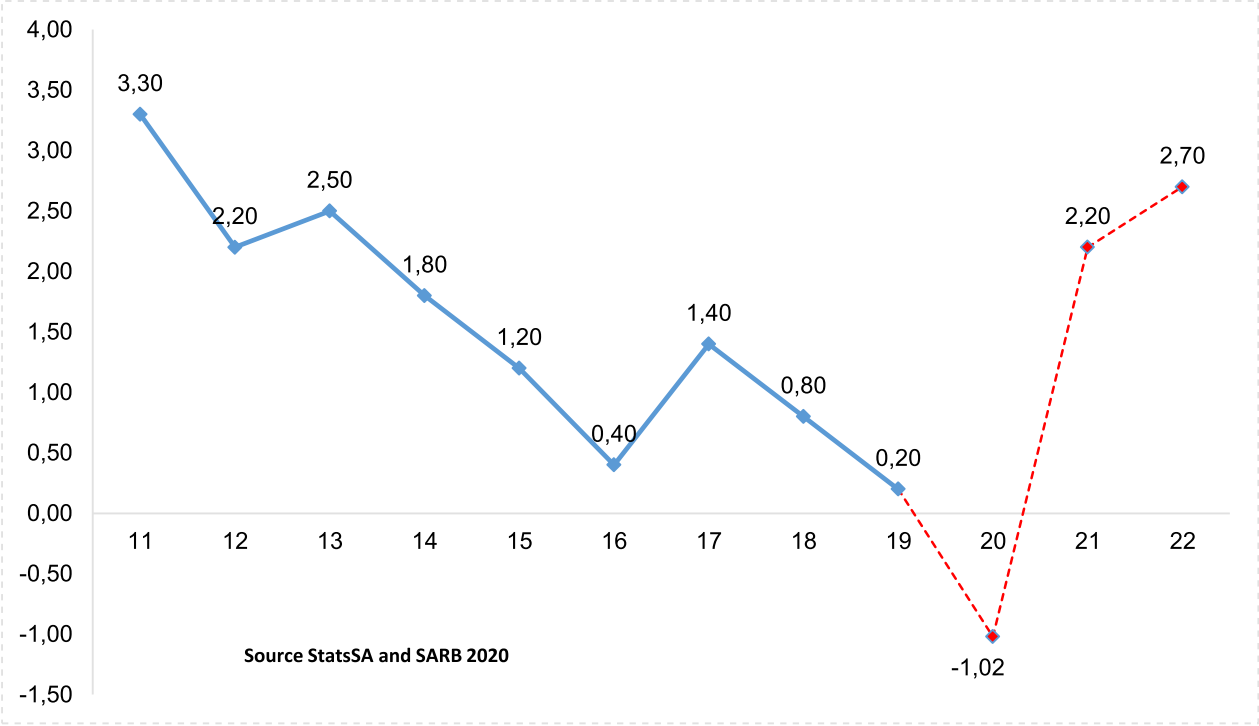
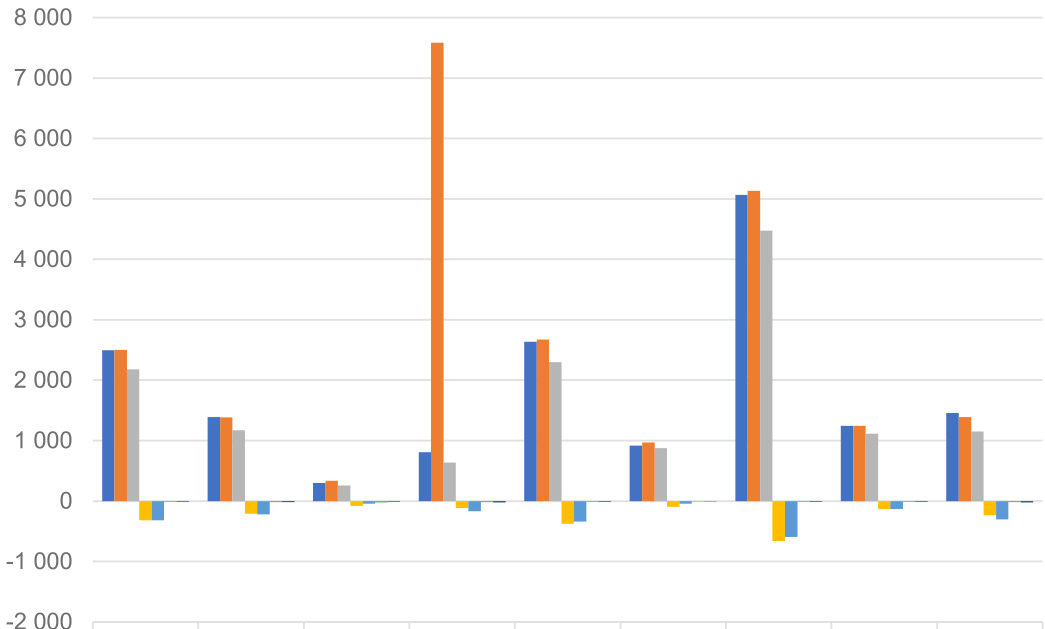


Figure 96: South African economic growth projection, 2011 to 2022
Source: SARB, 2020

The South African Reserve Bank (SARB) expects GDP in 2020 to contract by -6.1%, compared to the -0.2% expected earlier. It is, however, projected that the economy will recover and even grow by 2.2% in 2021, and by a further 2.7% in 2022.

Figure 97 depicts the employment comparison between the provinces. The 2020 Q2 Quarterly Labour Force Survey (QLFS) revealed that Limpopo Province has lost 236,000 jobs. All the sectors of the economy suffered job losses with the exception of agriculture sector, where 16,000 jobs were created. During the period under review, all the provinces experienced a decline in unemployment, which was a result of the lockdown, which constrained the supply and demand of labour.



	Western Cape	Eastern Cape	Nothern Cape	Free State	Kwa Zulu-Natal	North West	Gauteng	Mpumalanga	Limpopo
Qrt 2 2019	2497	1388	301	808	2635	918	5066	1243	1456
Qrt 1 2020	2501	1382	336	7586	2672	969	5134	1246	1387
Qrt 2 2020	2179	1169	255	638	2297	874	4473	1112	1151
Qrt to Qrt change	-321	-212	-80	-119	-375	-96	-661	-134	-236
Yr on Yr	-318	-218	-46	-171	-338	-44	-593	-131	-305
Qrt to Qrt change (%)	-12,8	-15,4	-24	-15,7	-14	-9,9	-12,9	-10,7	-17
Yr on Yr (%)	-12,7	-15,7	-15,3	-21,1	-12,8	-4,8	-11,7	-10,6	-21

Figure 97: Employment per province 2020: Q2
Source: StatsSA, Quarterly Labour Force Survey 2020Q2

In an analysis by Van Heerden, J.H. 2020: The impact of COVID-19 and the resulting lockdown regulations on the Limpopo economy, it was confirmed that the fall in GDP and output in 2020 is devastating in magnitude. However, it is projected that economic recovery is expected in 2021, given the assumptions made that the economy returns to full capacity from 2021 onwards, and world demand is restored completely. This is in line with economists world-wide who agree that the effects on GDP and other variables would be V-shaped. The graph below provides an overview of the COVID-19 impact model, indicating the massive economic shock of 2020, as well as the expected recovery of GDP, household expenditure, investments, exports and imports respectively.

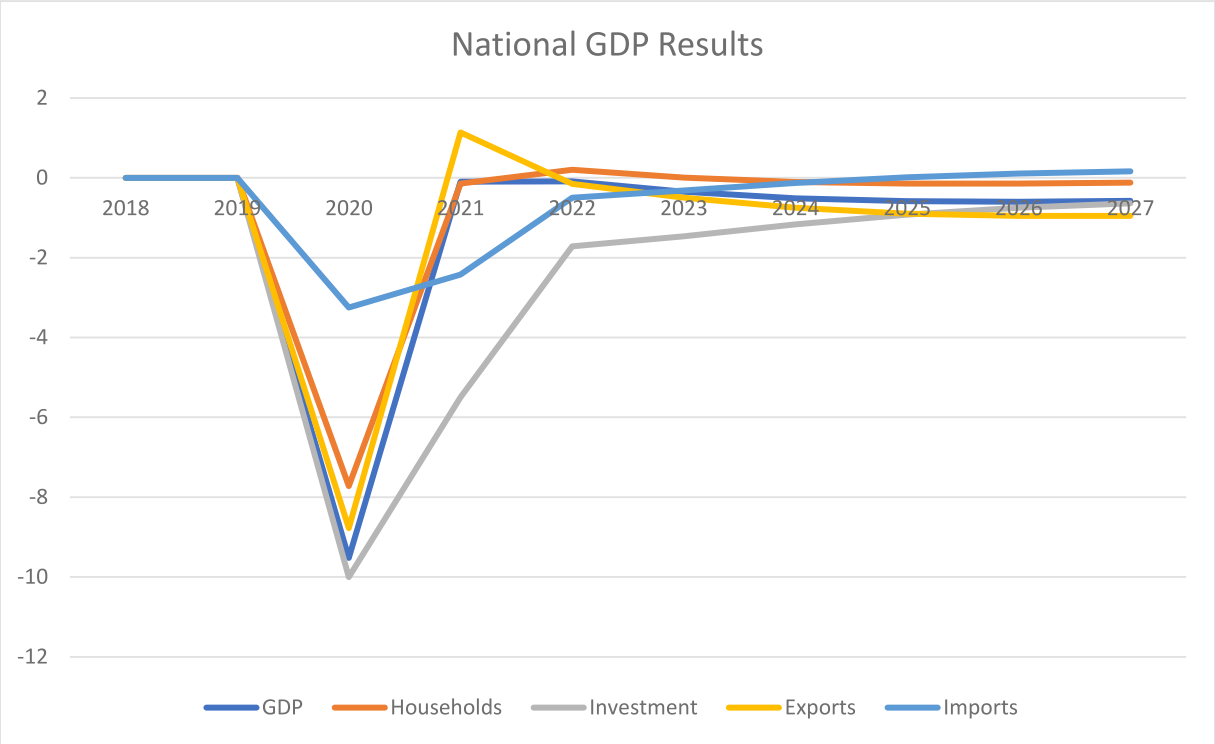


Figure 98: Percentage deviations from the baseline in GDP expenditure variables
Source: Van Heerden, J.H. 2020. The impact of COVID-19 and the resulting lockdown regulations on the Limpopo economy

Most industries have already been allowed to return to full production capacity and it is expected that they should not take more than a season or two before they return to normality. There are, however, firms that had to close their doors permanently, and hence investment and import is expected to take much longer than one season to return to pre-lockdown levels.

9.3 Provincial economic outlook

The Limpopo provincial economy in 2018 was worth R360 billion (an increase of 20 billion from 2017), and the sixth largest provincial economy in South Africa.

The limited economic growth during the first quarter of 2020 was also visible in the Limpopo provincial economy. The Province experienced a rise in unemployment during this period, from 20.3% in the fourth quarter of 2019, to 23.1%.

The COVID-19 impact analysis considered the impact of the lockdown period in South Africa, nationally as well as across all provinces. The table and graph below indicate the modelled impact on the Limpopo provincial economy.

Table 38: Percentage deviations from the baseline in Limpopo GDP expenditure variables

	2020	2021	2022	2023	2024	2025	2026	2027
GDP	-9,20	-0,11	-0,04	-0,26	-0,40	-0,45	-0,46	-0,43
Households	-6,85	-0,45	-0,05	-0,12	-0,17	-0,17	-0,15	-0,12
Investment	-9,88	-5,27	-1,54	-1,30	-1,00	-0,75	-0,58	-0,46
Exports	-12,51	2,33	-0,66	-1,38	-1,89	-2,17	-2,27	-2,26
Imports	-5,52	-1,87	-0,36	-0,26	-0,16	-0,08	-0,01	0,03

Source: Van Heerden, J.H. 2020. The impact of COVID-19 and the resulting lockdown regulations on the Limpopo economy

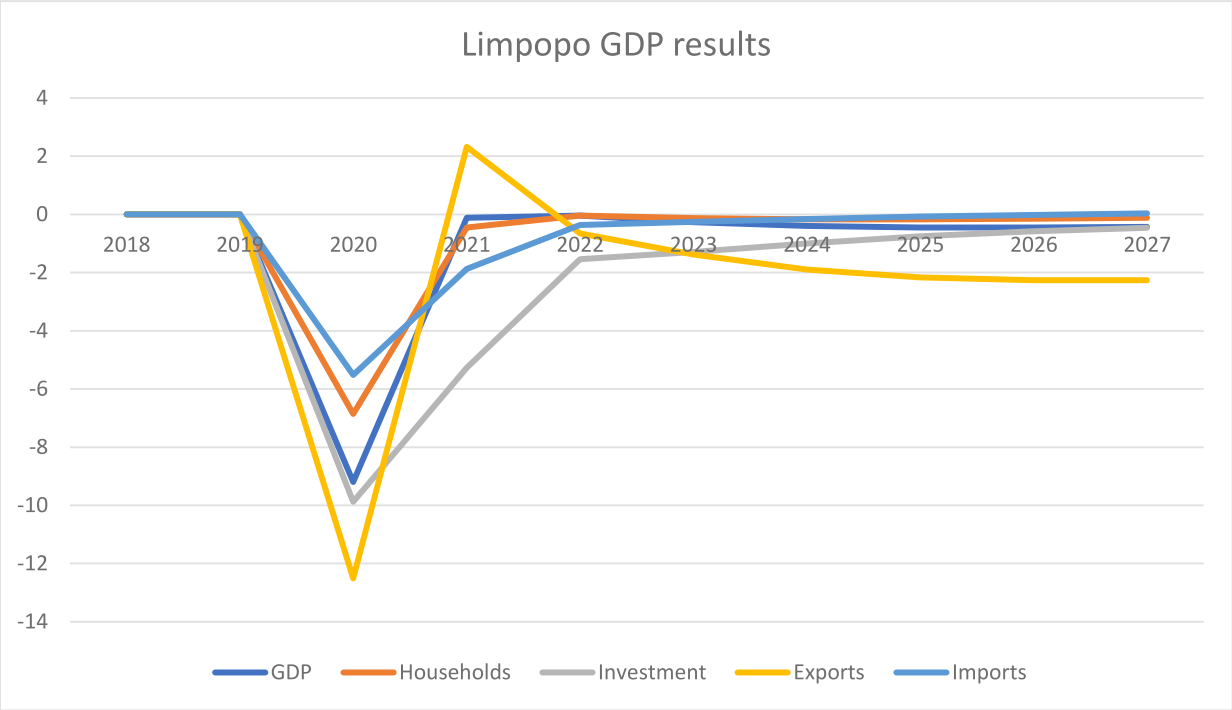


Figure 99: Percentage deviations from the baseline in Limpopo's GDP expenditure variables
Source: Van Heerden, J.H. 2020. The impact of COVID-19 and the resulting lockdown regulations on the Limpopo economy

It is evident that the forms of the graphs are very similar, with a few noticeable small differences. In short, household expenditure and imports were not as severely affected as the national economy. The impact on provincial GDP and investment was on par with the national economy. Exports, however, were affected more adversely than the national average.

9.4 Sectoral impact

The COVID-19 impact model also determined the effects of the lockdown period in South Africa on the various industries in the economy. The baseline of the model shows the cumulative growth that *would have* taken place without any period of lockdown. The impact for 2020 is then determined per sector, relative to the baseline. The projected 2027 view is provided for a medium-term comparison.

As might be expected, there are significant differences between industries, since the different lockdown levels only allowed certain industries to operate. For example, agriculture and most mining industries were allowed to operate close to capacity, while manufacturing was heavily affected. The Limpopo Province is very reliant on the former two groups of industries, and much less on manufacturing. The mining and agricultural industries, which are important industries for the Province, are not as severely affected as many other industries.

9.4.1 National

With the decrease in production capacity in the economy, the cumulative growth would be 7.60 percentage points below 4.50, namely at -3.10%.

The industries that have been affected the most severely by the lockdown periods implemented, as a result of the pandemic, are given in Table 39 below, for 2020 and 2027.

Table 39: List of worst-performing industries in 2020 and 2027 (figures indicate cumulative industry growth rates below the baseline %)

Industry	2020	Industry	2027
Other manufacturing	-18.79	Radio and TV equipment	-2.74
Radio and TV equipment	-17.22	Non-metallic minerals	-1.41
Hotels and restaurants	-14.19	Electrical machinery	-1.40
Non-metallic minerals	-13.28	Construction	-1.31
Real estate	-13.11	Crude gas	-1.24
Electrical machinery	-12.40	Cement	-1.23
Plastic/rubber	-12.36	Electricity/gas	-1.23
Transport equipment	-12.07	Other mining	-1.20
Other metal equipment	-11.81	Iron and steel	-1.20
Iron and steel	-11.57	Other metal equipment	-1.17

Source: Van Heerden, J.H. 2020. The impact of COVID-19 and the resulting lockdown regulations on the Limpopo economy

Amongst the ten worst hit national industries in 2020, are eight manufacturing industries. The other two are hotels and restaurants, and real estate. The tourism industry is very high on the list for 2020 because local and foreign tourists could not travel in South Africa for any extended period of time. Real estate is strongly linked to the wholesale and retail trade industries which could also only operate at a limited scale for a lengthy period of time.

The table below shows the ten best-performing industries in 2020 and 2027.

Table 40: List of best performing industries in 2020 and 2027

Industry	2020	Industry	2027
Insurance services	-3.66	Health and social services	0.05
Water	-6.16	General government services	-0.23
Financial services	-6.96	Education	-0.32
Health and social services	-7.50	Food	-0.48
Coal/lignite	-7.54	Petroleum refineries	-0.50
Agriculture	-7.60	Beverages and tobacco	-0.54
Other financial services	-7.71	Agriculture	-0.59
General government services	-7.75	Water	-0.60
Other services	-7.81	Printing and publishing	-0.61
Food	-8.46	Insurance services	-0.62

Source: Van Heerden, J.H. 2020. The impact of COVID-19 and the resulting lockdown regulations on the Limpopo economy

Most of the industries that seem to be the least affected by the lockdown, are in the services sector. The only three exceptions are agriculture, coal mining and the food industry.

9.4.2 Provincial

From the model, it is evident that the effects of COVID-19 are extremely severe in 2020. However, the economy of Limpopo, in line with the trend predicted for the national economy, will bounce back strongly from 2021 onwards. Some industries, such as construction, will likely take longer to recover, while others, such as mining and business services, may even overshoot the old baseline in 2021 and recover swiftly.

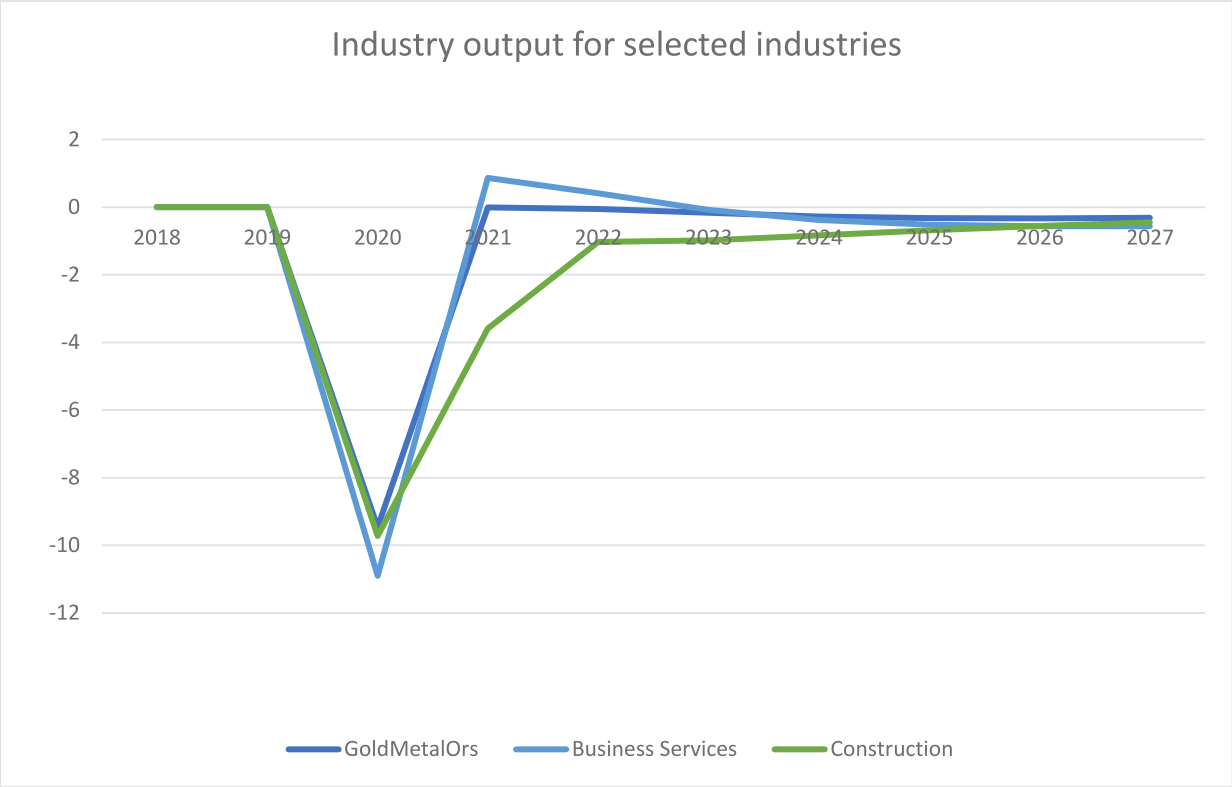


Figure 100: Percentage deviation from the baseline for three of Limpopo's largest industries
Source: Van Heerden, J.H. 2020. The impact of COVID-19 and the resulting lockdown regulations on the Limpopo economy

Table 41 reflects the ten worst-performing industries in 2020 and 2027 for the Limpopo Province. The numbers in the table are percentage changes away from the baseline.

Table 41: Worst-performing industries in 2020 and 2027 for the Limpopo Province

Industry	2020	Industry	2027
Radio and TV equipment	-23.40	Radio and TV equipment	-2.31
Structural fabricated metals	-18.03	Non-ferrous metals	-2.20
Non-ferrous metals	-17.13	Medical equipment	-1.94
Machinery	-16.39	Basic chemicals	-1.88
Electrical machinery	-16.31	Machinery	-1.68
Basic chemicals	-16.11	Basic iron and steel	-1.62
Furniture	-15.61	Structural fabricated metal	-1.52
Basic iron and steel	-14.15	Other manufacturing	-1.33
Transport equipment	-13.70	Research and development	-1.26
Other chemicals	-13.61	Electrical machinery	-1.22
Other chemicals	-13.61		

Source: Van Heerden, J.H. 2020. The impact of COVID-19 and the resulting lockdown regulations on the Limpopo economy

Amongst the ten worst-hit industries in 2020, are eight manufacturing industries. The good news is that none of the largest ten industries in Limpopo count amongst the worst-hit industries. However, most of them use metal ore as input into their production processes, which means that the mining industry in Limpopo is very vulnerable and significantly influenced.

On the other hand, the table below shows the ten best-performing industries in 2020 and 2027.

Table 42: List of best-performing industries in 2020 and 2027 in the Limpopo Province

Industry	2020	Industry	2027
Health and social work	-7.55	Clothing and apparel	-0.002
Fishing	-7.97	Government services	-0.22
Real estate	-8.08	Fishing	-0.26
Coal	-8.09	Other chemical	-0.26
Education	-8.17	Agriculture	-0.26
Agriculture	-8.17	Coal	-0.28
Water	-8.43	Other mining	-0.29
Other mining	-8.48	Food production	-0.30
Government services	-8.80	Gold metal ore	-0.31
Forestry	-9.10	Health and social work	-0.35

Source: Van Heerden, J.H. 2020. The impact of COVID-19 and the resulting lockdown regulations on the Limpopo economy

Three of the ten largest industries in Limpopo are amongst the best performers in 2020, and three are amongst the best performers in 2027 (indicated in grey). The largest industry in Limpopo, namely Gold and Metal Ores Mining, promises to recover very well from the impact of the lockdown.

9.5 Resultant recommendations

None of the Province's key industries lie amongst the ten worst-hit industries in the Province, while three of the most important industries rank amongst the least-hit industries. Therefore, in principle, the development plans that the Limpopo Province should implement, should not change as a result of the pandemic. Moreover, Limpopo has the opportunity to move up the ranks amongst the nine provinces of South Africa if it plays to its strengths and mends its weaknesses swiftly.

It was shown that the Province should support its winning industries, and strengthen its weaker links. Mining and government services are the two largest industries in Limpopo and should be supported and strengthened, as well as agriculture. Even though agriculture is not one of the largest industries in the Province, Limpopo does produce 8% of South Africa's agricultural goods. Manufacturing should be very high on the provincial development priorities in the longer term, to become a nett exporter. Finally, Limpopo is one of the most beautiful provinces in South Africa. It has all the necessary ingredients to make tourism one of its top three GDP contributors.

10 LIMPOPO DEVELOPMENT STRATEGY

10.1 Introduction

As per the Provincial Vision, the **Province aims to be a Resilient, Vibrant, Prosperous Province, inspired by its diverse and creative people and its environment.** The Development Strategy that follows, indicates how the Province intends to achieve this Vision. Moreover, the Limpopo Provincial Government is committed to co-creating the Province's future with industry/ the private sector, organised labour, civic society and academia. The Limpopo Provincial Government recognises the role of government, including national, provincial and local government, in realising the collective vision for the Province, and is committed to fulfilling its function as facilitator to create an investment-friendly and investment-ready environment. The successful implementation of the LDP requires a combined effort by all stakeholders.

The LDP 2020-2025 guides integrated planning, resource allocation and service delivery for the 6th Term of Administration.

10.2 Rationale for the Limpopo Development Plan 2020-2025

The Limpopo Development Plan 2020-2025 is a sequel to the LDP 2015-2020, or second provincial offering to the NDP Vision 2030. It draws lessons and builds from the previous achievements, and will carry forward targets that were partially, or not, achieved during the preceding period. It outlines provincial priorities for social and economic development during the 6th Term of Administration. The plan provides a framework for government, municipalities, the private sector and all organs of civil society to contribute immensely to the growth and development of the Province, in pursuit of the outcomes of the National Development Plan Vision 2030 and strategic priorities encapsulated in the five-year NDP Implementation Plan, and Medium-Term Strategic Framework (MTSF) 2019-2024.

The Cabinet has approved the 2019-2024 Medium-Term Strategic Framework (MTSF) priorities. The Province has aligned its priorities with the MTSF priorities in order to contribute to the achievement of the broader NDP Vision 2030. The Province has adopted eight priorities to anchor the LDP 2020-2025. The table below illustrates the alignment between the MTSF priorities and the LDP priorities/pillars.

Table 43: MTSF and LDP alignment for the Limpopo Province

MTSF 2019 – 2024 Priorities	LDP 2020 – 2025 Priorities
1. A capable, ethical and developmental state	1.Transform the public service for effective and efficient service delivery; Invest in human capital for a developmental state
2. Economic transformation and job creation	2. Transformation and modernisation of the provincial economy
3. Education, skills and health	3. Provision of quality education and a quality healthcare system
4. Consolidating the social wage through reliable and quality basic services	4. Integrated and sustainable socio-economic infrastructure development
	5. Accelerate social change and improve quality of life of Limpopo's citizens
5. Spatial integration, human settlements and local government	6. Spatial transformation for integrated socio-economic development
6. Social cohesion and safe communities	7. Strengthen crime prevention and social cohesion
7. A better Africa and the world	8. Economic transformation and job creation through regional integration

The figure below illustrates the LDP priorities.



Figure 101: LDP priorities 2020-2025 for the Province

The sections that follow outline the Development Strategy in order to achieve the Vision, by addressing each of the eight LDP priorities. It is indicated which Provincial Cluster is primarily responsible for the implementation of each respective priority. This will assist in streamlining, monitoring and evaluating, to determine the effectiveness of the Development Strategy.

10.3 Priority 1: Transform the public service for effective and efficient service delivery

10.3.1 Summary

The 2019-2024 MTSF highlights the importance of building a capable, ethical and developmental state, that has accountable leadership, capable, productive and professional public servants, combats and reduces incidents of fraud and corruption, promotes good governance, improves trust and confidence in government, strengthens intergovernmental relations (IGR) for effective planning and delivery, and improves monitoring and evaluation of performance. Priority 1 of the LDP give effect to this MTSF target.

The NDP cautions that a developmental state must be consciously built and sustained. The sub-outcomes that are particularly important to monitor in this regard are as follows:

- Households progressively gain access to sustainable and reliable basic services (water, sanitation, electricity and refuse removal)
- Public trust in local government is improved through active and deliberative citizen engagement
- Municipalities demonstrate good financial governance
- Quality of management and administrative practices within municipalities is improved
- Municipalities attract and retain skilled and competent personnel
- Work opportunities are created and expanded through programmes such as the Community Work Programme (CWP)
- Quality of governance arrangements and political leadership is enhanced

The challenges of the Limpopo government, and the level of satisfaction of civic society, was discussed in Section 8.6. According to the Customer Satisfaction Survey conducted during 2019, customer satisfaction is 55%, far below the satisfaction benchmark or threshold of 70%.

The fulfilment of the vision of a transformed public service, will necessitate a transition to a more functional and integrated government, that is capacitated with professional and responsible public servants. Functional and productive intergovernmental relations are also key enablers to this priority to ensure the joint pursuit of a capable state.

To this end, the LDP highlights the need for well-run and effectively co-ordinated provincial institutions, with skilled public servants who are committed to the public good and capable of delivering high-quality services, while prioritising provincial developmental objectives.

The Governance and Administration Cluster is mainly responsible for the implementation/ institutionalisation of this priority. The provincial departments that contribute to this focus area include the:

- Department of Co-operative Governance, Human Settlements and Traditional Affairs (chairs the Cluster)
- Office of the Premier (chairs the Cluster at a technical level)
- Provincial Treasury (Chair of the Infrastructure Cluster)
- Department of Economic Development, Environment and Tourism (Chair of the Economic Cluster)
- Department of Education (Chair of the Social Cluster)
- Department of Transport and Community Safety (Chair of the JCPS Cluster)
- South African Local Government Association (SALGA)

10.3.2 Strategic response

The strategic response is focused on building a capable government by investing in human capital. The focus is on the public sector, which is responsible for creating an enabling environment for society and the private sector. Therefore, capacitation should start with the public sector.

A truly effective developmental state requires strong leadership, strategic capacity, as well as strong organisational and technical capacity, while embracing digital tools, although it is noted that digital tools cannot replace the human capital required to achieve this goal.

In order to transform the public service, a culture must be instilled whereby all staff work to their full capacity and treat state resources with respect. No property of the state may be misused or used for the benefit of someone not entitled to it. Furthermore, an effective and efficient public service is easily undermined by poor ethics and corruption. Therefore, the programme under this priority is focused on building an efficient and honest government.

The programme has eight outcomes, which are as follows:

Outcome 1: Integrated government
In an effort to accelerate implementation and improve service delivery, government is committed to eliminating the fragmented approach to development, and to strengthen co-ordination across the public sector. Government had previously expressed intentions to establish a single public service. The Public Administration and Management Act (PAMA, 2014) provides for a more inclusive definition of public administration to include all three spheres of government. It also enables transfer of staff between the three spheres of government. The challenge is readiness of government in terms of structures, skills, finance and infrastructure to make this policy intention a reality.

Key activity: Institutionalise and implement the District Development Model
The Office of the Premier, CoGHSTA and Provincial Treasury, are co-ordinating the process to institutionalise the District Development Model (DDM) across three spheres of government to support, monitor and oversee local government functioning in relation to integrated planning, financial management and governance, inclusive of impactful service delivery.

Outcome 2: Improved efficiency
A strong and functional public sector is at the heart of good service delivery and the public mandate. The government needs the organisational capacity to ensure that it has the most effective and efficient structures and systems to realise its goals.

The key activities under this outcome is aimed at improving the efficiency of the provincial administration, thereby improving our ability to support districts and local municipalities in turn. Efficiency is a broad term that could refer to resource efficiency, financial efficiency, and time efficiency, amongst others. The Limpopo Province will strive to counter systemic inefficiency by focusing on human resource efficiency, financial efficiency (reducing unnecessary expenditure and timely processing of payments), and the systematic digitisation of administrative systems.

Key activity: Identify and reduce unwanted expenditure in provincial departments

Key activity: Implement “Operation Clean Audit” to support municipalities to implement sound financial and administrative management practices. The Province will continue its efforts to improve the audit outcomes in departments, public entities and municipalities, and strive to increase the number of institutions with “Clean audit” outcomes. The focus for the first financial year will be on the departments, public entities and municipalities with the greatest number of non-conformances in the previous financial year.

Key activity: Monitor and support departments on compliance with 30-day invoice payments

Key activity: Implementation of the e-governance strategy. eGovernment in the province currently only concerns the provision of government information through electronic means, i.e. websites. There is a duplication of websites, the high prevalence of legacy technologies and systems, stand-alone systems with outdated and/or conflicting content, and no connectivity in some regions. Most of the services offered are still paper-based.

The Province is in the process of finalising the eGovernment Strategy Implementation Plan, which will indicate the targeted projects and systems to improve service delivery per financial year in the ensuing five years. The focus is on digitising the Government to Citizen Services, Government to Business Services, Government to Government Services, Government to Employees Service and Cybersecurity. A shared service model will also be used in order to eliminate duplication and reduce spending on ICT.

Key activity: eLearning implementation at Maths, Science and Technology (MST) schools

Key activity: Update outdated transversal administrative systems and policies

Outcome 3: Improved impact of public expenditure through spatial targeting
The need for public funds far exceeds the provincial budget. It is therefore essential to prioritise expenditure. The LDP, combined with the LSDF and MYHSDP, give guidance to, and direct, public investment. The goal is to maximise the economic and social benefits derived from public expenditure. An approach of spatial targeting will therefore be adopted. Refer to priorities 5 and 7 for further detail concerning the selected areas.

Key activity: Ensure that departmental budgets are allocated to identified provincial priority projects and spatial targeting areas

Key activity: In support of integrated planning and implementation that is aligned with the LDP 2020-2025, the provincial strategies and plans need to either be developed or reviewed. It is crucial that these strategies and plans give further effect to the LDP and are aligned with the spatial targeting approach outlined in the Provincial Spatial Development Framework and Priority Human Settlement and Housing Development Areas (PHSHDAs) (Spatial Transformation).

Key activity: Increase ease of access to provincial plans, frameworks, and strategies

Key activity: Adopt the Limpopo Spatial Development Framework (LSDF) principles in departmental decision-making frameworks and budgets, and ensure that it is cascaded to district and municipal plans and frameworks.

Key activity: Finalise the Limpopo Spatial Planning and Land Use Management Bill.

Key activity: Develop Spatial Planning and Land Use Management (SPLUM) Planning Bylaws for municipalities that do not yet have these, and ensure that the respective Land Use Management Schemes are aligned with SPLUMA and the new bylaws. Furthermore, incorporate the gazetted PHSHDAs.

Outcome 4: Improved monitoring and implementation (accountable provincial government)
In order to track implementation progress of the LDP, and to measure the impact of LDP interventions, it is vital that data gathering, accurate reporting and monitoring, critical evaluation, and strategic support, be in place.

Key activities:
- Load all departments on the provincial information and knowledge management portal
- Sectoral plans must have measurable targets and monthly and quarterly reporting should be measured against targets, with mitigation measures implemented when targets are not met
- Co-ordinate the implementation of the Provincial Integrated Planning Framework (PIPF)

- Upload latest versions of all provincial plans, frameworks and strategies to the Limpopo Government website, and remove outdated documents

Outcome 5: Ethical public administration
Corruption costs the government millions every year, money that could have been spent on delivering services. It is therefore imperative that corruption in the Province be curbed, starting with the public sector to set the example.

Key activities:
- Monitor and support departments on the handling of National Anti-Corruption Hotline (NACH) cases
- Encourage whistle-blowing to root out corruption, through public campaigns and through prosecution of convicted trespassers
- Implement the Anti-corruption Strategy of the Limpopo Province and the Integrity Management Unit
- Finalise reported fraud and corruption cases
- Improve conviction rate on reported corruption among government officials

Outcome 6: Strong and strategic leadership
A developmental state has strong strategic leaders who direct development planning, make necessary decisions for trade-offs required to enable economic development and social upliftment, drive systemic change for improved efficiency, and ensure implementation of strategic plans and programmes (a focus on delivery and accountability).

Key activity: Finalise, adopt and implement priority four of the Limpopo Human Resource Development (HRD) Strategy in the provincial public service

Key activity: Support district and local municipalities in filling of strategic positions with meritocratic individuals

Key activity: Partner with academia and research institutions to strengthen local knowledge and insight, and to inform better decision-making. The vehicle for collaboration needs to be formalised, namely the Provincial Research and Development Hub, comprising the Universities of Limpopo (UL), Venda (UNIVEN), and South Africa (UNISA), as well as the Tshwane University of Technology (TUT).

The main role of the Hub will be:

- Enhancement of Provincial Research Agenda
- Provision of quality credible data and scientific evidence to advise and support the government on the planning, development, implementation, monitoring and evaluation of the activities that would respond to the needs of the community
- Assist in policy-making and in enhancing better interpretation and implementation of policies and procedures
- Assist in giving empirical data and a clear profile of the inhabitants of the Province, as well as their socio-economic conditions
- Improvement of government's ability to source and secure funding from research donors such as the National Research Foundation and Department of Science and Innovation, amongst others
- Enabling academic and research institutions to produce research that responds to the priorities and needs of the provincial government
- Reduction in the cost of generation of scientific data
- Ensuring that research outcomes are published in accredited journals and are subjected to extensive peer review systems
- Distribution of research information to the public
- Assist with local needs analysis, as well as advising on its prioritisation

The following outlines the niche/focus areas of research, in support of the LDP implementation process:

- Research focus area 1: Strategies to enhance the capability of provincial and local government to deliver the LDP
- Research focus area 2: Innovative/creative approaches to skills development to grow the Limpopo economy
- Research focus area 3: Appropriate Infrastructure development and management
- Research focus area 4: Strategies to increase GDP growth and create decent jobs
- Research focus area 5: Addressing poverty and inequality
- Research focus area 6: Improving service delivery

Outcome 7: Develop technical capacity
The developmental state's technical capacity is its ability to translate broad objectives into programmes and projects, and to ensure their implementation. Economic growth and development need high-quality and reliable infrastructure services, ranging from water and sewage, to electricity generation, to transport and spatial planning.

Technical capacity also involves the Province's capacity to plan and monitor the implementation of its programmes and projects. All of these tasks require strong technical and programme/project management capacity.

Key activities:
- Training of public servants through the continued roll-out of the Senior-management Service (SMS) and Middle-management Service (MMS) Capacity Programme
- Strengthen, and improve service of the Infrastructure Project Management Unit, particularly of infrastructure projects and scheduled maintenance
- Capacitate the Department of Public Works, Roads and Infrastructure through the Infrastructure Capacity Programme to support all provincial departments

Outcome 8: Establish/increase the social compact
Strategic capacity means the ability of the government to take the lead in defining a common provincial agenda, to mobilise all of society to take part in the implementation of this agenda and to direct resources towards this shared programme. The developmental state must be able to unite the public sector, business, labour and civil society in a partnership geared to implement this shared programme.

The developmental state must be embedded in society, build constructive relations, collaborate with all sectors of society, and empower citizens to be active agents of change in communities. The developmental state must also play a much stronger role in establishing clear, measurable and time-bound targets for common programmes, and for monitoring their implementation. This contributes to building an accountable government. Improved communication, consultation and engagement by government with key stakeholders, particularly with industry, organised labour and citizens, will build public trust, establishing a foundation for partnerships.

Key activity: Engage with industry in provincial and local planning, budgeting and implementation processes, particularly with the mining, manufacturing, agriculture and tourism sectors

10.4 Priority 2: Transformation and modernisation of the provincial economy

10.4.1 Summary

Priority is focused on growing, transforming, diversifying and modernising the economy, creating additional jobs, reducing poverty and unemployment, and ramping up measures to promote industrialisation, localisation, diversification, resilience and adaptivity, to embrace the 4IR. In the short term, there are also commitments to recover the economy from the impact of COVID-19, as detailed in the Limpopo Socio-Economic Recovery Plan.

Central to attaining the vision enshrined in the NDP, is the implementation of the Industrialisation Agenda that promotes economic growth, manufacturing, value addition (beneficiation and agro-processing), and technological innovation.

A long-term vision is provided for dealing with the challenges of unemployment, inequality and creating a more inclusive society. Central to meeting the vision enshrined in the NDP, is the implementation of the Industrialisation Agenda that promotes economic growth, value addition (agro-processing), use of technological innovation and manufacturing. Economic transformation can be achieved only when private sector and government work together.

The Limpopo Province envisions to evolve its businesses to embrace the 4IR and to be globally competitive. The Province depends on foreign investment in order to grow, and will therefore create an investment-friendly Province, with low financial and political risk, in order to attract investors.

By 2030, Limpopo's transition to an environmentally-sustainable, climate change-resilient, low-carbon economy and just society, will be well under way. The first phase focuses on a framework for implementing the transition to an environmentally-sustainable, low-carbon economy. During this phase, the Province needs to focus on measures to mitigate climate change and to explore alternative technological solutions to reduce its carbon footprint.

The vision is to have rural areas that are spatially, socially and economically integrated, and where residents have access to economic opportunities, food security and jobs, as a result of agrarian transformation and infrastructure development programmes. By 2030, agriculture will contribute more significantly to the GGP of Limpopo.

The Economic Sector Cluster is responsible for the execution of this priority. Provincial departments that contribute to this priority include the:

- Limpopo Department of Economic Development, Environment and Tourism (chairs the Cluster)
- Limpopo Department of Agriculture and Rural Development
- Department Public Works, Roads and Infrastructure
- Limpopo Provincial Treasury
- Department of Transport and Community Safety
- Department of Co-operative Governance, Human Settlements and Traditional Affairs
- Department of Sports, Arts & Culture
- Office of the Premier

Additional stakeholders include:

- State owned entities

- Private sector and investors
- Funding institutions

Considering the above, the timely socio-economic initiatives contained in the LDP focus on a consolidated plan for Limpopo to address recovery and to maximise available development opportunities. Agility and good governance are twin towers that should underpin the advancement towards economic recovery and growth.

10.4.2 Strategy and plan

10.4.2.1 Introduction

The LDP focuses on maximising available economic opportunities. It is noted that these opportunities are largely dependent on a supportive regulatory environment, good governance, and are underpinned by a functional infrastructure network.

The essence of the Limpopo Development Plan is to improve standards of living and to reduce poverty, unemployment and unacceptable levels of inequality. Economic growth, coupled with improved access to economic opportunities, is one of the pillars to drive poverty reduction. In order to achieve maximum impact, there is a need to direct investment and attention on a limited number of sectors and spatial areas, until sufficient momentum has been gained.

The Limpopo growth trajectory (2020-2025) will be propelled by investments in agriculture, mining, industrialisation/manufacturing, tourism and the waste economy. The emphasis will be on diversifying and modernising these sectors, capitalising on leapfrogging and 4IR opportunities, global competitiveness and empowering SMMEs.

The Economic Sector Cluster identified the following focus areas:

- Enterprise development and support – SMME support, co-operative support and support preferential procurement policy
- Industrialisation and Growth Point Programmes – development of SEZs, revitalisation of industrial parks, support of tourism and mining clusters and development of ICT (broadband)
- Increased agricultural production – agro-processing and agricultural support programmes
- Conservation and sustainable use of natural resources – support land care programme, management of nature reserves and green economy
- Local Economic Development (LED) – build capacity for local economic development
- Creative industries – implementation of the Creative Industry Strategy
- Development of infrastructure for the economy – develop Transport Master Plan, support public transport management, co-ordinate Integrated Transport System, development of broadband infrastructure and upgrading of nature reserves
- Trade and investment promotion – an increase in investment in targeted sectors and regional integration
- Youth development programmes – creation of work opportunities and entrepreneurship for young people

Some of these focus areas are discussed in the sections that follow, while others are discussed in more detail under other LDP priorities.

10.4.2.2 Economic Recovery Plan

Since the outbreak of the pandemic, the Province has been working towards minimising the spread of the infections, guided by the approved integrated contingency plan.

The Province has developed its Provincial Socio-Economic Recovery Plan, which represents the sum total of the government, and its partners', commitment to implement economic and social relief measures in mitigating the impact of the COVID-19 pandemic on the economy and the social fabric.

The Limpopo Socio-economy Recovery Plan will be implemented by sector departments, its agencies, and co-operative partners. Sector departments and agencies have developed recovery plans/sector implementation plans to mitigate the post COVID-19 period, to ensure that the economy in the Province is revived. The departments and agencies will ensure that implementation progress is reported through cluster Programmes of Action (POAs).

The financial implication will be borne by the provincial government, its agencies and co-operative partners (normal budgeting, Corporate Social Investments and Social Labour Plan reprioritisation). Public funding will be sourced from government budget reprioritisation of the savings made in the first quarter of 2020/21. It is envisaged that the province will recover within the MTEF (2021/2022)

10.4.2.3 Defining the role of government in economic growth

The provincial government, in partnership with local government and other partners, should implement drastic measures to create a competitive city region economy. The following strategic interventions will be undertaken:

- **Reduce the time-cost of doing business:** The focus is on improvement in the turn-around time of attaining statutory approvals (licenses, land approvals, permits, environmental authorisations) and upgrading processes digitally. Coupled with this is the need to reduce red tape and corruption linked with unlocking economic opportunities.
- **Establish enabling infrastructure**: Establishment of the Limpopo Science and Technology Park and expand the broadband telecommunication infrastructure to all five districts. The focus is also to implement the strategic and priority infrastructure projects to ensure that the economy is enabled through an integrated transport system, improved road network, affordable airlift, access to adequate water, sanitation, and energy, including renewable energy. 4IR technologies should also be incorporated into the design and implementation of the Musina-Makhado SEZ and the smart cities in the Province.
- **Increase the availability of local skills:** The availability of appropriate skills locally will reduce the need to import labour as it will be more affordable to make use of local skills. An increase in local economic opportunities will reduce out-migration of skilled individuals from the Province. This will, in turn, improve the circular nature of the economy.
- **Local Economic Development:** In line with the growth points' approach of the province, each district will identify and drive at least on local economic development initiative based on its comparative advantage. The initiative should be implemented in partnership with private sector.
- **Strategic partnership:** The Province is open to meaningfully engage and partner with the private sector, parastatals, academia, research centres and funding institutions to fulfil the developmental agenda.
- **Strategic support:** Establish a provincial one-stop-centre and initiate and expand the small business incubation programme in key sectors of the economy.

10.4.2.4 Agriculture

Limpopo Province's agricultural potential is an under-utilised asset. The protection of high potential agricultural land is vital to the national food security narrative. Moreover, many economic and research opportunities exist within the agricultural sector, including intensive agriculture, agro-processing, precision agriculture, low water demand alternatives, and export opportunities for produce/products.

Limpopo has been identified as the most vulnerable province in terms of climate change impact on agriculture, mainly due to the high percentage of small-scale farmers (DEA, 2015). Strategies to adapt to the changing climate in the Province are crucial to the agricultural sector, especially as the Province is the 'agricultural engine' of South Africa and the Limpopo Province plans to grow this sector as part of its economic recovery.

Outcome 1: Grow the provincial agricultural sector
Key activity: Support the establishment of agro-processing and value adding facilities

Key projects:

- Establishment of a Marula Industrial Industry Hub, with Phalaborwa as the centre and with inter-district linkages with smaller marula hubs. The potential for a distillery in the longer term can be investigated.
- Establishment of a Medicinal Plants and Essential Oils Cultivation and Processing Hub
- Conduct a census of all irrigation schemes in the Province and develop a Plan for their optimisation
- Build Agricultural Hubs in each district municipality to strengthen each district's unique agricultural potential and output
- Leveraging the digital market to optimise the opportunities within the agri-value chain by digitising the trade of agricultural services, products and produce.
- Mutale agri-industry development
- Mooihoek Game Farming Initiative aims to support the development of an emerging wildlife sector through value chain development and an incubation programme within a structured institutional framework built on strategic Public Private Partnerships.
- Feasibility of a multipurpose agro-processing facility in the area of Mogalakwena Municipality designed to process Moringa, guar and other crops, into value-added products, such as oil, biodiesel, guar gum and other industrial-related products.

Key activity: Introduce agricultural support programmes to enhance productivity

- Establish a precision agriculture Geospatial Information System (GIS) focusing on the provision of information to farmers
- Establish a Sustainable Farming Systems Programme focusing on vertical agriculture, aquaponics, aquaculture and aquafeed
- Training and deployment of para-vets
- Implementation of regional inoculation and animal health schemes
- Implement and maintain stock register using modern technology
- Development of animal conditioning programmes to enable fair access into commercial meat supply chain
- Roll out household food production programmes in villages that have been identified as activity nodes
- Smart farming platform to support emerging farmers to overcome barriers to becoming commercially viable producers of quality fresh produce.
- Implement land care programmes to preserve land for agricultural production

Key activity: Establish linkages between small-scale farmers and retail outlets/factories to support localisation

- Identify agricultural and tourism bankable projects that could be transitioned into sustainable enterprises
- Fresh produce market developments

Key activity: Partner with academia and research institutions to conduct research, share information and conduct training in climate-smart agriculture

- Explore low water demand and low input cost technology/methods
- Support technology transfer and skills development
- Explore economic opportunities from agricultural waste, such as the production of aquafeed (for e.g. mealworms)
- Develop a Precision GIS in support of agricultural activity, training and optimisation
- Determine the feasibility of establishing a new South African Foot-and-Mouth disease ("FMD") vaccine production facility to supply South Africa and Africa
- Explore solutions to supplement FMD movement control, focusing on the Mpumalanga and Limpopo provinces' borders as well as the Kruger National Park

Outcome 2: Respond to climate change and build adaptive capacity

High-level strategies that could reduce vulnerability by strengthening the ability to respond to climate change and build adaptive capacity in the agricultural sector include (Limpopo Provincial Government, 2016):

Key activity: Creating a climate smart agriculture programme to help develop or promote the use of specific seed or plant varieties in specific locations

- An applied research programme that spurs development or adoption of specific varieties of climate-resilient plants or seeds should aim to identify different varieties for different parts of the Province. Different soil types, different staple food and dietary patterns, and local constraints, should be considered. The programme should include field trials and training programmes for farmers.

Key activity: Enhancing ongoing efforts involving Conservation Agriculture

- The Limpopo Province is already significantly engaged in Conservation Agriculture. These activities should be enhanced to include an expanded focus on components such as mulching, agro-forestry, livestock, mixed farming, nutrient conservation, water conservation, etc. A research component to generate more locally-relevant data should be included, and studies should be carried out by agricultural centres within the Province.

Key activity: Initiating a dedicated climate change adaptation programme for cattle ranching/livestock rearing in the Province

- A key intervention for the Province is to launch a multi-year, province-specific programme to assist livestock farmers and cattle ranchers adapt to changing climatic conditions. It would involve applied research on adaptation measures, education and training sessions, funding for on-farm adaptation measures, and ongoing assistance to farmers.

Key activity: Funding and implementing a comprehensive climate change awareness and skills-building programme within the Province

- The design of an awareness-building programme such as this would include a new curriculum (or additions to the curriculum) in schools or colleges (both basic and higher education) to raise awareness on climate change and its impact on agriculture at an earlier stage. The programme would include the public, as well as farmers, and involve educational outreach about the impact of climate change on specific crops grown in specific areas.

10.4.2.5 Tourism

To accelerate growth in the tourism sector, the overarching national goal is to fast-track inclusive and quality growth of the South African tourism economy.

Specific targeted areas for the Limpopo tourism sector are:

- **An improved road network:** The provincial heritage icons and cultural settings are mainly found in the rural parts of Limpopo, as well as Mapungubwe National Park, Marakele National Park and the northern parts of the Kruger National Park. To unlock these areas and routes as tourist destinations, the current road network requires significant attention. The Department of Economic Development, Environment and Tourism (LEDET) also commenced with a rural tourism/township tourism initiative that will focus on homestays and route development. The success of this initiative depends on good road access.
- **Safety and security:** A large number of international tourists visiting Limpopo are self-drive tourists. The safety of tourists travelling to Limpopo is vital to ensure that tourists do not perceive the area as a having high safety risk.
- **Empowerment:** Tourism destinations should aim to partner with local entrepreneurs where possible. Opportunities include food supply, beauty treatments, game drives, logistics (transport of tourists to and from the airport), road construction and maintenance, construction of buildings, cleaning and general maintenance, arts and crafts, accommodation, cultural experiences, arts/entertainment, child-minding, and many more. By working with local communities, the value of the natural assets can be shared more equitably, which could positively impact conservation efforts to curb poaching and safety issues. Support community-owned tourism initiatives such as Makapan, Tjate, Nombela, Mashishimale Homestay and African Ivory Route Co-operative.
- **Technological revolution:** Digital marketing platforms for tourism destinations and offerings, should be updated frequently, and any communication channels should be monitored to provide good customer service and ease of access to information. Wildlife destinations require internet access. The technological

revolution offers ample opportunities for wildlife and plant species research, and even remote tourism and education opportunities. Funding opportunities could be unlocked by, for example, allowing an animal to be digitally 'tagged' in order that their 'sponsor' can track their daily movements.
- **Skills development:** Tourism destinations offer job opportunities. Local skills development programmes should focus on hospitality and nature conservation skills, amongst others. The focus should especially be on the women and youth of the Limpopo Province.
- **The commercialisation of state-owned properties, especially in nature reserves:** The public sector could make land in nature reserves available for additional accommodation, or for skills development. Declare state-owned and private nature reserves in areas with a high conservation potential.
- **Affordable airlift:** Affordable air access from major destinations such as OR Tambo international Airport, should be a priority. Consideration should also be given to opening routes between destinations within Limpopo with neighbouring provinces and with SADC member countries.

Additional measures to be implemented are encapsulated in the **Tourism Recovery Plan** and the **Green Economy Plan**.

10.4.2.6 Mining

Since the Limpopo mining sector is the largest contributor to the total provincial economy, and contributes significantly to the national mining sector, it is vital that this sector continues to perform well, and that downstream opportunities are maximised. This good performance should, however, not be at the expense of valuable agricultural land or long-term environmental and social sustainability in the Province. Large-scale private investment is expected in the sector. The Limpopo Spatial Development Framework provides guidance with regards to the spatial trade-offs required.

Specific targeted areas for the Limpopo government to continue supporting the sector, are described below:

Outcome 1: Sustainability (repurposing/circular economy)
Key activity:
- Support, encourage and reward mining companies to mine more economically (less resource-intensive) and to transition to green alternatives (reduced water demand, reuse, recycling, green energy, etc)
- Consider alternative technologies (hydro-metallurgical bioprocessing to reduce waste)

Key activity:
- Monitor compliance with environmental regulations and enforce sustainable mining practices

Key activity:
- Partner with others to explore options to repurpose mines (such as underground farming) and mining by-products and waste (including reduce, reuse and recycle solutions)
- Where geochemically suitable, use waste rock as backfill, aggregate in road construction or landscaping material
- Use waste rock as feedstock for cement and concrete
- Use granulated blast furnace slag in the production of cement ('slag cement')
- Storage, collection, transfer, processing and recycling of used oil
- Initiate tailings retreatment projects where viable
- Use tailings as backfill in underground mines
- Remediate wastewater from processing (e.g. bio-remediation)
- Increase recovery of secondary metal

Outcome 2: Useful partnerships
Key activity:
- Provide support to mining companies where required

- Provide inputs and co-operate in the drafting of Social and Labour Plans (SLPs) and Housing and Living Conditions Plans
- Provide information regarding reputable local companies to assist in the drive for local procurement
- Engage meaningfully with mining companies in forums, where relevant, and act as mediator between communities and mining companies

Key activity:
- Ensure that there is alignment between the education and training curriculum and industry skills requirements (putting more emphasis on data science, data analysis, computer science, robotics, etc.)
- Up-to-date skills development programmes that are in line with national and global trends of 4IR, innovation and technology

Key activity:
- Support small-scale mining
- Facilitate the formalisation of small-scale mining operations

Outcome 3: Increased mining activity and mineral beneficiation
Key activity:
- The promotion of mineral beneficiation remains a critical focus area for the Musina-Makhado Special Economic Zone (SEZ) and Tubatse Platinum Industrial Hub

Key activity:
- Support exploration and mining of mineral deposits, including rare earth minerals, in line with legislation and regulations, and in an environmentally-responsible way

Outcome 4: Support improved efficiencies and competitiveness
Key activity:
- Seek ways to maximise the positive benefits of the implementation of 4IR technologies that could enhance the viability of the mining sector through improved operational efficiencies, reduced operational costs, improved competitiveness and improved occupational health and safety (OHS)

10.4.2.7 Manufacturing (industrialisation)

There is a need to diversify the provincial economy in light of mine closures taking place, in the medium to long term, and in line with the national and provincial imperative to industrialise the economy. The push for diversification will be coupled with modernisation and empowerment of local entrepreneurs. The development of the manufacturing sector in the Limpopo Province is guided by the Revised Limpopo Industrial Master Plan (2020-2025).

A plethora of opportunities exist. Sector strategies and sector support programmes will be developed to ensure that all sectors are developed to their maximum potential.

Outcome 1: Cluster value chain development
Key activity: Value chain development in the agriculture and mining sectors offer multiple opportunities, including but not limited to, mineral beneficiation and agro-processing. These initiatives will be spatially consolidated around existing cities and towns, as well as in the Musina-Makhado Special Economic Zone (SEZ) and Fetakgomo-Tubatse Platinum Industrial Hub, and also in the Mining Input Supply Hub of the platinum complex. Opportunities for export to other regions and countries will also be explored.

Outcome 2: Provide support to local SMMEs
Key activities:
- Support small businesses through information about development finance institutions
- Support small businesses through public and private incubation programmes
- Implement the township and rural economy strategy

- Provide long-term offtake agreements at competitive and attractive prices to local SMMEs and co-operatives
- Establish a dedicated development and industrialisation fund for local SMMEs and co-operatives (the Province has dedicated 30% of procurement spend to support local production by SMMEs and co-operatives)
- Develop a policy that encourages the portion of government spend on township SMMES and co-operatives, and on black enterprise and empowered companies

Outcome 3: Integrated sector strategy development
Key activity:
- Involve industry, academia, industry bodies, labour and communities in the development and implementation of sector strategies

Outcome 4: Increase beneficiation in all sectors
The focus sectors for beneficiation are:

Mining sector
- Beneficiation of platinum, copper, diamonds and coal, including smelting, batteries and catalytic converters
- Development and expansion of Musina-Makhado SEZ (metallurgical processing)
- Feasibility and planning of the Fetakgomo-Tubatse Industrial Hub (mining input supplies, energy production)

Agro-industrialisation
- Establish agri-parks
- Agro-processing Pharmaceutical Hub

Outcome 5: Support the expansion of existing industries
Logistics
- Logistics Hub in Lephalale
- Transport and Logistics Hub in Polokwane
- Cross-border free trade, e.g Mozambique, Botswana, Zimbabwe

Construction and building materials
- Expand construction and building material incubators
- Local maintenance of infrastructure

Furniture
- Expand the furniture incubation programmes

Creative industry
- Film sector
- Arts (including music) and crafts
- Fashion
- Culture

Outcome 6: Increase the Green Economy
- Establish district-based waste management (recycling through buy-back) centres
- Explore waste tyre recycling partnership with private sector.
- Establish production facilities through industrial symbiosis programme
- Alternative energy production
- Implement wildlife economy programmes
- Implement biotrade or bioprospecting programme
- Independent power production

10.4.2.8 Construction

In response to COVID-19, the construction sector has since formed a Construction Sector COVID-19 Task Team, currently composed of over 30 organisations representing major suppliers, contractors, regulators, professional associations and built environment professional services firms. This task team has worked with the government to develop an industry-specific COVID-19 Construction Health & Safety Protocol. Furthermore, the task team has submitted a comprehensive short, medium and long-term plan to the government, comprising of actionable reforms to assist the recovery of the sector. The plan highlights the following:

- The need for the alignment and merging of all statutory approval processes into a single application process
- The empowerment of qualified and registered design professionals to self-certify their work, or alternatively, peer certification on a rotational basis
- Restructuring of public procurement processes under the guidance of the quantity surveying, architectural and engineering professions, that are responsible for procurement processes in the private sector on a daily basis, noting the need to acknowledge the broad intent of the current Public Finance Management Act (PFMA) and Municipal Finance Management Acts (MFMAs). The shortcomings of these policies in the procurement of professional services should also be acknowledged and reviewed
- Establishing a supply chain environment which differentiates between procurement of goods and procurement of professional services
- Creating a regulatory framework that supports the industry in being sustainable, rather than contributing to its collapse
- Increase public-private partnerships for the provision of infrastructure projects
- Facilitation of development finance to ensure that more projects reach the bankable feasibility stage

Other recommendations to support private sector recovery include:

- **A predictable and reliable long-term infrastructure pipeline:** A forward-looking pipeline of planned projects and programmes of economic and social infrastructure will assist construction companies to understand which infrastructure investments government is currently prioritising. By publishing the pipeline, the government will help provide visibility, knowledge and understanding of where infrastructure investment is being made, and by whom. Publishing projections of longer-term infrastructure investment will boost market confidence and will help the sector with business planning.
- **One government body to co-ordinate infrastructure planning:** It is recommended that government establish, under the Department of Public Works, Roads and Infrastructure, an infrastructure planning and co-ordinating body that will combine fragmented efforts and infrastructure-related work currently done by national, provincial, local government and major state-owned enterprises (SOEs). The body can also provide project preparation capacity and support.

10.4.2.9 Waste economy

Waste management is a municipal function, but substantial opportunity exists for the private sector to turn waste into economic assets, thereby also reducing the volume of waste going to landfill, which has economic, environmental and human health benefits.

The main targeted outcomes in the waste economy sector are:

Outcome 1: Improve waste management service delivery through partnerships
Key activities:

- The Province, as well as all municipalities, have Integrated Waste Management Plans (IWMPs) in place. The focus for the LDP period will be on the implementation of these plans.
- Explore opportunities to partner with the private sector, as well as with individual and co-operatives, in this regard. It is vital to monitor these partners to ensure that dumping takes place as per regulation and licensing directives.

Outcome 2: Improve compliance and monitoring at licenced waste management to enable better decision-making

Key activities:

- Ensure that 90% of waste management facilities report data to the South African Waste Information System (SAWIS) (also refer to Priority 5)
- Incorporate 4IR technology at new waste management facilities to automate data collection and reporting

Outcome 3: Aggressively ramp up recycling

Key activities:

- Increase availability of drop-off and collection points for household recyclables
- Partner with local entrepreneurs, individuals and co-operatives to collect recyclables, especially in rural areas
- Increase recycling campaigns and education drives
- Develop a recycling incentive scheme for rural areas
- Establish recycling networks to increase feedstock availability, e.g. partner with automotive and electronics industries to increase the collection of scrapped goods
- Centralise recycling of metals and electronics (industrial streams) to achieve critical mass (select a suitable location, taking into consideration the necessary environmental legislation measures)
- Drive regional collection programmes that feed the centralised hubs
- Undertake feasibility studies to determine the viability of, and best locations for, buy-back centres and material recovery facilities (MRFs)

Outcome 4: Support the capitalisation on economic opportunities related to waste

Key activities:

- Encourage industry to explore and capitalise on economic opportunities related to waste. In certain instances, such as mining waste, on-site treatment and repurposing might be most economic. In other instances, such as composting, regional projects might be more viable, in which instance partnerships should be established to ensure sufficient feedstock and commercial viability. Other waste streams might require a hybrid between on-site and regional treatment, such as tyre recycling. In these instances, partnerships could be established with a number of entities that collectively process/repurpose waste.
- The focus should be on developing the entire value chain locally, to reduce the need for logistics and import of raw materials, while simultaneously adding maximum value to the repurposed products before exporting (to other provinces or internationally).
- Large companies are encouraged to partner with local start-ups and SMMEs to achieve regional coverage.
- Use waste for energy generation – commercial farms could reduce energy demand through the digestion of anaerobic waste. Anaerobic digestion could also be considered at household or community level in rural areas to meet household energy needs. The digestion of human waste for energy could be considered to meet energy demand at schools.

10.4.2.10 Positioning the Limpopo Province for 4IR

An innovation-driven economy is characterised by distinctive producers and a high share of services in the economy, making it more resilient to external shocks. The Limpopo Province has a strategic advantage of a large proportion of youth. However, the two greatest threats for Limpopo to move towards an innovation-driven economy, is the low rate of passes in mathematics and science subjects in high schools, and the relatively low proportion of Science, Engineering and Technology (SET) graduates from universities, as well as the lack of ICT infrastructure (unreliable electricity supply, low tele-density, low internet density and low broadband penetration).

The Province is planning to leapfrog and transition from being a consumer, to becoming an active participant in the digital economy and the 4IR. This section presents a set of strategic considerations for the Limpopo Province to position itself for the Fourth Industrial Revolution (4IR).

Outcome 1: Install enabling information and communications technology (ICT) network
Key activities:

- In partnership with the private sector, drive the large-scale installation of broadband wifi and fibre across the Province. The first priority areas for installation should be tertiary institutions, schools, identified growth points, industrial hubs, and agri-hubs, for high impact and to unlock education opportunities. Labour unions can facilitate any negotiation deadlocks that may prevent timeous project roll-out.
- Establish a Science and Technology Park in Polokwane to support local innovation

Outcome 2: Adapt curricula for the digital economy and the 4IR
Key activities:

- The education system in the Limpopo Province invests in digital skills development with a focus on key sectors with a high growth potential, such as agriculture, mining, manufacturing, information and communication technologies, as well as electronics.
- Re-skilling and training of adults, e.g. through courses at TVET colleges and adult basic education and training (ABET) facilities

Outcome 3: Develop and roll-out Limpopo 4IR Strategy
Key activities:

- Develop a comprehensive 4IR strategy that will provide a framework on how the Province should position itself to benefit from the 4IR, while managing the challenges it presents
- Apply 4IR in the Musina-Makhado SEZ, as well as in the smart cities that are envisaged

10.5 Priority 3: Provision of quality education and a quality health care system

10.5.1 Summary

By 2030, Limpopo must have a basic education system with high-quality, universal early childhood education and quality school education, with globally competitive literacy and numeracy standards. Education is seen as an important instrument in equalising individuals' life chances, preparing next generations to be economically mobile and successful, and is critical to poverty reduction.

Limpopo residents should have access to education and training of the highest quality, leading to improved learning outcomes. The education, training and innovation system should cater for different needs and produce highly-skilled individuals. The graduates of Limpopo's universities and colleges should have the skills and knowledge to meet the present and future needs of the economy and society. Research and development should be significantly expanded.

Long-term health goals for national and provincial government range from provision of quality primary health care services to reduce mortality rates, filling of critical posts, and improving health information management systems.

The Social Cluster is responsible for the roll-out of programmes to achieve this priority. Departments that contribute to the area include the:

- Department of Education (Chairs the Cluster)
- Department of Health (Deputy Chair of Cluster)
- Department of Social Development
- Department of Sport, Arts and Culture

Additional departments that participate in the Social Cluster include:

- Co-operative Governance, Human Settlements and Traditional Affairs
- Transport and Community Safety
- Office of the Premier
- Home Affairs – population register management
- South African Social Security Agency (SASSA) – social protection of vulnerable groups
- Municipalities – provision of certain categories basic services

This LDP priority focuses on education and health. The remaining outcomes and strategic priorities of the Social Cluster are discussed under priorities 5 and 7.

10.5.2 Strategy and Plan

10.5.2.1 Education and skills training

The Education and Skills Training Programmes under this priority is focused on providing Limpopo residents with access to education of the highest quality. The programme has six outcomes, which are as follows:

Outcome 1: Improved school readiness
Key activities:
- Reconfigure ECD Programmes (Department of Education and Social Development)
- Improve the training of ECD practitioners and their National Qualification Framework (NQF) levels
- Improve the Learner/Teacher ratio

Outcome 2: Improved learning outcomes across all grades
Key activities:
- Emphasize in-service training of teachers
- Train more teachers through the Funza Lushaka bursary scheme
- Introduce social service programmes and school health in schools to deal with social ills (substance abuse, parental skills, Yolo & Zazi, reproductive health, etc.)
- Implement school sport programmes (in collaboration with the Department of Sports, Arts, Culture)
- Address school safety challenges through the School Safety Programme (in collaboration with SAPS)
- Introduce entrepreneurship development programmes, especially in the townships and rural areas, to support economic revitalisation

Outcome 3: Improve access to education
Key activities:
- Ensure that scholar transport adheres to norms and standards
- Utilise unused infrastructure
- Implement access programmes: National School Nutrition Programme (NSNP), scholar/learner transport programme, and no-fee school policy

Outcome 4: Improve education infrastructure
Key activities:
- Build and/or refurbish schools
- Build and/or refurbish community libraries
- Provide water and sanitation in schools (adhere to school infrastructure norms)
- Replace/refurbish unsafe school buildings
- Support the Schools Consolidation Programme (in partnership with the Infrastructure Cluster)

Outcome 5: Align education with industry needs
Key activities:

- Support establishment and operationalisation of Centres of Specialisation at TVET colleges in the Limpopo Province. This project will provide fully-qualified artisans for a range of economic sectors in the Province.
- Introduce agriculture, tourism and other technical subjects at schools and colleges
- Establish strategic partnerships with Sector Education and Training Authorities (SETAs), universities, TVET colleges, and industry, to enhance relevant education and training support

Outcome 6: Encourage lifelong learning
Key activities:
- Increase the number of institutions of higher learning (TVET colleges)
- Improve the co-ordination and interaction with TVETs, SETAs and universities
- Create a strong partnership between mining houses, TVETs and universities in the Implementation of Artisan Development Programmes
- Support TVETs to receive accreditation as Trade Test Centres to accelerate the Artisan Development Initiatives

Outcome 7: Eliminate the digital divide
Key activities:
- Increase connectivity at schools for administration and learning
- Equip learners with ICT skills once schools have access to broadband (in collaboration with the Department of Sports, Arts, Culture)
- Introduce coding and robotics from Grade R to Grade 3
- Establishment and operationalisation of Industry-Partnered 4IR Learning Factories at TVET colleges to support 4IR skills development and innovation

Information Box 3: Example of skills to be considered for education and training in support of the 4IR

- Computer programming/coding
- Data, information processing and analytics
- Ability to interact with modem interfaces (human-machine/robot)
- AI and data analytics
- Cybersecurity (IT security and data protection)
- Digital production processes
- Knowledge management
- Entrepreneurship skills
- Creative problem-solving
- Open-mindedness towards constant change
- Green skills in support of the transition to a green economy

Outcome 8: Align bursary awards with the required skills in the provincial economy
Key activities:
- Develop and maintain a provincial database, per department, of provincially supported students, and utilise the database to track the students' progress
- Develop a skills retention strategy to retain the skills within the Province, particularly of those who received financial support through the various efforts of financial aid within the Province
- Conduct a skills audit/survey of the available skills, and skills that are still in demand

10.5.2.2 Health

The Provincial Health Programme under this priority is focused on:

- Improved life expectancy for males and females

- Reducing the burden of disease – TB, HIV/AIDS, malaria, hypertension environmental and lifestyle diseases
- Improving access to health information, health facilities and health services
- Protecting women and children

The Provincial Health Programme has five outcomes, which are as follows:

Outcome 1: Manage and prevent communicable and non-communicable diseases
Key activities:
- Intensify health education, promotion and prevention
- Intensify implementation of the 90-90-90 Strategy
- Provide sporting facilities to communities
- Compulsory sport activities at schools
- Increase mass sport participation
- Intensify implementation of the universal test and treat intervention
- Strengthen interdepartmental meetings with CoGHSTA, Water and Sanitation, and the Department of Agriculture
- Provincial public health to participate in the development of an early warning system for infectious diseases (iDEWS) with National Institute of Communicable Diseases Control (NICC)
- Intensify fumigation/malaria-spraying of households
- Intensify social behavioural change programme
- Intensify patient tracing through community health workers (CHWs) and stakeholders
- Strengthened implementation of HIV/AIDS and tuberculosis prevention and management programmes

Outcome 2: Improve women, child, maternal health and nutrition (WCMH&N)
Key activities:
- Reduce maternal and child morbidity and mortality
- Develop and implement a provincial strategy on gender-based violence
- Strengthen family preservation programmes
- Implement social crime prevention strategy
- Implement Food Security Integrated plan
- Provide social grants to population within safety net
- Strengthen sustainable livelihood programmes
- Strengthen child protection programmes
- Strengthen reproductive health services, Zazi, Yolo and Chomie programmes
- Instil moral values
- Provide secure and child-friendly parks
- Close pubs and taverns that are adjacent to schools and churches
- Improve police response time
- Expand satellite police stations in communities
- Intensify integrated awareness campaigns and support initiatives on gender-based violence
- Robots to be integrated with cameras to monitor crime scenes

Outcome 3: Improve availability of essential medicines
Key activities:
- Assessment of public and non-public health facilities for lifelong antiretroviral treatment (ART)
- Increase access to ART
- Implement Drug Master plan

Outcome 4: Improve access to, and quality of, health facilities/services
Key activities:
- Progressively achieve Universal Healthcare Coverage (UHC) through National Health Insurance (NHI)
- Intensify quality improvement in the provision of healthcare

- Build and refurbish health infrastructure for effective service delivery
- Inclusive participation of all racial groups in all national calendar events
- Strengthen/re-engineer district health services for primary health care
- Develop and strengthen human resources through accelerating the filling of vacant posts in the key health categories
- Reduce Medico-legal and litigation through the reduction of rates of adverse events and medical negligence
- Develop and implement unified patient health information system

Outcome 5: Improve health infrastructure
Key activity:
- Refurbish and rehabilitate health infrastructure (in collaboration with the Infrastructure Development Cluster)

10.6 Priority 4: Integrated and sustainable socio-economic infrastructure development

10.6.1 Summary

The infrastructure network is at the heart of enabling and supporting economic growth, while also serving social objectives by providing basic services such as electricity, water, sanitation, telecommunications and public transport to improve quality of life for the residents of the Limpopo Province. By 2030, everyone must enjoy an adequate standard of living. The lack of reliable services could be a deterrent to potential investors, and infrastructure such as wastewater treatment works that are oversubscribed, lead to environmental degradation. Furthermore, the lack of sufficient bulk service capacity is hampering the development of human settlements and economic investment, to address the backlog and serve latent demand.

The cluster that is primarily responsible for Priority 4, is the Infrastructure Development Cluster. The departments involved include the:

- Provincial Treasury (Chairs the Cluster)
- Department of Public Works, Roads & Infrastructure
- Department of Water and Sanitation – regional office
- Department of Agriculture & Rural Development
- Department of Economic Development, Environment and Tourism
- Department of Education
- Department of Health
- Department of Sports, Arts and Culture
- Department of Social Development
- Department of Transport and Community Safety
- Co-operative Governance, Human Settlements and Traditional Affairs
- Roads Agency Limpopo
- Office of the Premier

10.6.2 Strategic response

The Province thus far has budgeted R6 billion per annum for strategic infrastructure development. The investments must be used to unlock private infrastructure investment. In general, priority infrastructure investment should be channelled towards the spatial targeting areas (PHSHDAs and Mining Towns in Distress Municipalities) and provincial growth nodes where it is able to facilitate investment.

The Infrastructure Development Cluster Committee has identified the following focus areas to inform the development of the Infrastructure Development Cluster Programme of Action for 2020/2021:

- Infrastructure Capacity Programme – Capacitation of the Department of Public Works, Roads and Infrastructure to support all provincial departments
- Strategic Integrated Projects (SIPs)
- District Development Model
- Sustainable Infrastructure Delivery Programme
- Improved road and transportation infrastructure (Integrated Transport System)
- Addressing socio-economic water priorities
- Institutionalisation of Limpopo Integrated Infrastructure Master Plan (LIIMP)
- Infrastructure to support economic growth, i.e. Industrial Clusters: mining, agriculture, logistics, tourism, ICT and manufacturing
- Revitalisation of health facilities
- Schools Consolidation Programme
- Access to social infrastructure, i.e. electricity, water, sanitation and roads
- Best practise solutions for sustainable infrastructure provision
- Expanded Public Works Programme
- Explore alternative technology in the Build Environment

10.6.2.1 Addressing the infrastructure challenges

The trend in infrastructure projects shows that poor project management and lack of finance are the two primary constraining factors hampering implementation. For this reason, two strategic interventions will be undertaken to address the challenges surrounding project implementation:

1. **Set aside the Project Preparation and Development Fund**
2. **Strengthen the Project Management Unit**

10.6.2.2 Strategic projects

The key strategic projects for the Province in terms of infrastructure development, are the following:

- Presidential Infrastructure Projects:
  - The Limpopo Province has identified a list of catalytic infrastructure projects to be funded from the Presidential Infrastructure Fund. The projects were submitted to the Infrastructure Investment Office at the Presidency.
  - These projects are high-priority and are earmarked to stimulate the economy. The projects are also with institutions such as DWS, Transnet, SANRAL, etc., although they are to be implemented in the Limpopo Province.
  - The Province has committed to these projects as being catalysts for the economy.
- Implementation of the Limpopo Integrated Infrastructure Master Plan and District Development Model:
  - The Limpopo Integrated Infrastructure Master Plan (LIIMP) provides the institutional framework to facilitate a co-ordinated and integrated approach to planning, development and implementation of strategic infrastructure in achieving the 2050 vision. It also serves as an overarching guide to the District Development Model.
  - The immediate focus is on the institutionalisation of the LIIMP in sector departments, municipalities, SOEs and the private sector, followed by the implementation of the plan.
- Construction of Limpopo Academic Hospital
- Relocation of legislative centre from Lebowakgomo to Polokwane:
  - The project was registered with National Treasury as a Public Private Partnership (PPP) project, subject to completion of the feasibility study.

- Construction of the Provincial State Theatre
- Relocation of Sekhukhune District Office from Lebowakgomo
- Implementation of electrification programme by ESKOM
- Water and sanitation infrastructure (DWS)
- Improved road infrastructure (LDPWR&I/ RAL)

10.6.2.3 Water and sanitation

The provision of water, and the development of the road network, have been identified as two main priorities for the 6th Term of Administration, as levers for economic and social development. Water infrastructure is ageing due to inadequate provision for maintenance, and poor infrastructure results in high water losses. More critical is increasing water scarcity and insufficient bulk water supply. As a result, investment has been constrained in the majority of spatial targeting areas in the Province, such as the Musina-Makhado SEZ, PHSHDAs and PGPs.

Outcome 1: Plan, schedule and implement strategic and preventative maintenance
Key activity: Implement the Limpopo Water Master Plan
Key activity: The plan is to commence with the works that have the highest need for refurbishment

The **Water Treatment Works** earmarked as being in high need of refurbishment are:
- Steelpoort WTW
- Seshego WTW
- Laaste Hoop WTW
- Molotone WTPP
- Dithabanang WTW

The **Wastewater Treatment Works** earmarked as being in high need of refurbishment are:
- Sekororo Sewerage WWTW
- Penge WWTW
- Kampersrus WWTW
- Giyani WWTW
- Lenyenye WWTW
- Lebowakgomo RWWTW (Middelkop) WWTW
- Mogwadi (Dendron) WWTW
- Lebowakgomo Oxidation Ponds 1 WWTW
- Vleinfontein WWTW
- Mutale WWTW
- Makhado (Louis Trichardt) WWTW

Outcome 2: Improve water conservation (WC), water demand management (WDM) and cost recovery
Given Limpopo's water scarcity, the implementation of WC & WDM & cost recovery, is as important as the development of new infrastructure. It is also important to acknowledge that without WC & WDM & Cost Recovery, the equal distribution of water to the end user would not be possible. Effective WC & WCD & Cost Recovery implementation would increase water availability to the end user by at least 15%.

In the short to medium term, given the cost of bulk infrastructure, the Province will focus on the implementation or improvement of WC & WCD & Cost Recovery in densified areas (such as the Mankweng area) through the Water Service Authorities, to increase the availability of water in the Province.

Key activity: Implement WC & WDM & Cost Recovery measures

Outcome 3: Improve water resource management

Improved strategies for water resource management are also urgently required. The current allocation of water to the agricultural sector needs to be investigated. Agriculture is the sector with the highest licensed water allocation, a significant portion of which is not being used.

Given the need for basic water services, it is essential that the licensed allocations be revisited and that industries such as agriculture and mining optimise their efficiencies in terms of water use, which will assist in increasing the availability of water as a basic service.

The impact and sustainability of rural schemes in the short, medium and long term, needs to be assessed in conjunction with National Treasury and CoGTA.

Key activity: Review water license allocations and optimisation of water use

Key activity: Assessment of the impact and sustainability of rural schemes

Outcome 4: Optimise and balance water supply
It is critical to implement 4IR technology to optimise and "balance" water supply per regional water supply scheme.

Priority water projects
The following bulk water infrastructure projects are prioritised for feasibility, project preparation and implementation, to create an enabling, competitive environment that will assist in the economic recovery of the Province, and fast-track spatial transformation and implementation of the Provincial Industrialisation Strategy:

- *SIP 19b: Phase 2A of the Mokolo Crocodile West Augmentation (MCWAP) project at Lephalale*

Approximately 160km of pipeline and pump stations will be constructed from the Mokolo dam. This will ensure more water to the Lephalale Local Municipality, including the Joe Slovo/Altoostyd Integrated Human Settlements, and secure water for the Medupi and Matimba power stations. It will also supply water to surrounding mines.

- *SIP 19d: Olifants River Water Resource Development Project (ORWRDP) – Phase 2, FetakgomoTubatse.*

The purpose of the project is to provide physical infrastructure (storage dams and associated bulk distribution system and pump stations) that will enable new allocation/reallocation of water to meet current and future water needs for all sectors within the Olifants and Mogalakwena/Sandriver catchments.
  - Construct a water pipeline from Flag Boshielo dam to Mogalakwena
  - Formalisation of the Water Supply Agreement
  - Resolve development and funding constraints in order to finalise construction of the De Hoop dam and construction of the 2C pipeline/consider alternative solution proposed (Local Water Utilities Association (LWUA))

- *SIP 19h: Groot Letaba River Water Development Project - Nwamitwa Dam, Greater Tzaneen*
  - Complete the raising of the Tzaneen Dam wall

- *SIP 18: Ebenezer Olifants (Polokwane Regional Supply)*

- *Bulk water supply to Steelpoort area*

- *Water provision to Musina-Makhado Special Economic Zone (SEZ)*:

Sustainable water supply to the Musina-Makhado SEZ for construction, and to support operations (commercial) and new households:
  - There will be a deficit of 133 million m^3 of water per annum to support the SEZ project once it is fully developed
  - Obtain funding for the requisite feasiblity studies
  - Obtain comments from Zimbabwe on the Climate Resilient Infrastructure Development Fund (CDIDF) report

- *Upgrade Nandoni Water Treatment Works*

Upgrade Nandoni WTW from 60Ml/d to 120Ml/day and construct associated infrastructure to supply Giyani, parts of Malamulele, and parts of Vuwani:

  - Secure funding from DWS
  - Construct a package plant in the short term
  - Construct a conventional plant in the long term

- *Ga Malekana WTW upgrade, doubling-up of bulk water infrastructure supplying Jane Furse and Nebo*

- *Upgrade and refurbish the Dap Naude transfer scheme*

- *Investigate water reuse opportunities in the Province*

- *Development of the Malmane wellfield and bulk transfer scheme*

Due to the impact of COVID-19, the Nebo Bulk Water supply will be delayed in the short term. However, the following Regional Bulk Infrastructure Grant (RBIG) projects will be accelerated, in line with COVID-19 response measures:

- Mametja Sekororo Phase1
- Mooihoek, Levhubu bulk water supply

Implementation of the priority water projects have been challenged by funding constraints and competitiveness of service cost. In order to improve competitiveness, attract private sector investment, source additional funding and address the high cost of water supplied to consumers, the Province should investigate partnership arrangements with the private sector to make technical teams available to provide input on the feasibility, project packaging and business plans for the bulk water supply and sanitation projects.

Priority sanitation projects

The following two sanitation projects will be prioritised to unlock urban development in Polokwane and Northam respectively:

- New Regional Wastewater Treatment Works for Polokwane
  - Implementation of Phase 1 of the project has started

- Northam Wastewater Treatment Facility (NWWTF): Upgrading/development of a 5Ml/day facility to support the town of Northam and the Northam Human Settlements Catalytic Project.
  - Finalise Memorandum of Understanding (MOU)
  - Update costing and project execution plan impacted by COVID-19

10.6.2.4 Energy

The base strategic driver for development and industrialisation in any economy is sustainable energy security. As such, the Province should ensure that there is sufficient energy to support large-scale industrialisation. The strategic response is firstly to protect existing electricity generation and distribution infrastructure, and to maximise revenue collection from existing users. The second strategic driver is to reduce demand, commencing with public buildings and streetlights (public space). The third strategic driver is to broaden the energy mix and to introduce alternatives to augment the energy supply.

Outcome 1: Address theft of distribution infrastructure (copper and cables)

Key activity: Partner with SAPS and security agencies to reduce incidents of theft, and to prosecute offenders

Outcome 2: Address poor credit control systems

Key activity: Follow up on outstanding accounts, starting with large accounts first
Key activity: Switch off electricity supply to non-payers until payment is received

Outcome 3: Improved energy efficiency at public buildings
Key activities:
- Issue regulations for use of electricity in all public buildings (provincial government, municipalities, schools, hospitals, community centres)
- Assess energy efficiency in all public buildings
- Retrofit all public buildings accordingly
- Install solar panels for all streetlights in cities and large towns (bulk procurement, local production, installation)
- Install solar water heaters in new public buildings
- Strengthen the energy efficiency programme through which the Province replaces existing lights in all provincial facilities and government buildings, with LED lights

Outcome: Broaden the energy mix in the Province
Key activities:
- Conduct a feasibility study to determine the potential, and most suitable, locations for concentrated solar plants
- Conduct a feasibility study to determine the most suitable locations for wind farms and potential offtake partners
- Conduct a feasibility study to determine the viability of converting waste from landfill and wastewater treatment plants into biogas
- Conduct campaign to encourage production of off-grid electricity by small (5 MW) solar power plants
- Conduct campaign to encourage production of components for solar panels (utilise silicon reserves and optimise the silicone smelter in Polokwane)
- Implement a programme to retrofit coal-fired boilers with natural gas
- Implement the Tri-generation programme in hospitals (using gas for cooling and heating)

10.6.2.5 Waste management

Waste management services in the Province requires urgent attention. The bulk handling of waste will be addressed, as well as waste management in rural areas, where these services are currently very limited, to non-existent.

Outcome 1: Address compliance at licensed landfill sites
Key activity: Quarterly monitoring of waste management facilities to ensure that data is being reported on the South African Waste Information System (SAWIS).

Outcome 2: Increase awareness and practice of recycling
Key activities:
- Increase the number of recycling drop-off facilities in cities and large towns
- Conduct campaigns for recycling at industries, commercial institutions and households in cities and large towns
- Increase the roll-out of the Packa-ching entrepreneur development programme to support and increase recycling
- Initiate waste separation at source recycling programmes in large towns and activity nodes

Outcome 3: Address waste in rural areas in a sustainable way
Key activity: Initiate a rural waste management programme that:
1) Identifies municipal waste collection points in identified activity nodes, including sorting stations
2) Supports local entrepreneurs who collect and transport waste to these collection points
3) Initiate weekly collection by municipal waste trucks and take to landfill/sorting stations/recycling points

10.6.2.6 Roads and transport

Roads, railway lines, airports and ports of entry are the lifelines of the provincial economy. It is vital that the high-order movement network is in good condition to facilitate the movement of goods and people. Aligned with the Limpopo vision, the Province's transport system should improve connectivity its communities. The development of new smart cities in the Province will include integrated transport systems.

Figure 102 provides a graphic depiction to facilitate the comprehension of the levels or priorities of transport interventions. It is imperative to first address the basics (i.e. provision of access and maintenance of existing roads) before making changes to the system (paradigm shift), such as the move from road to rail.

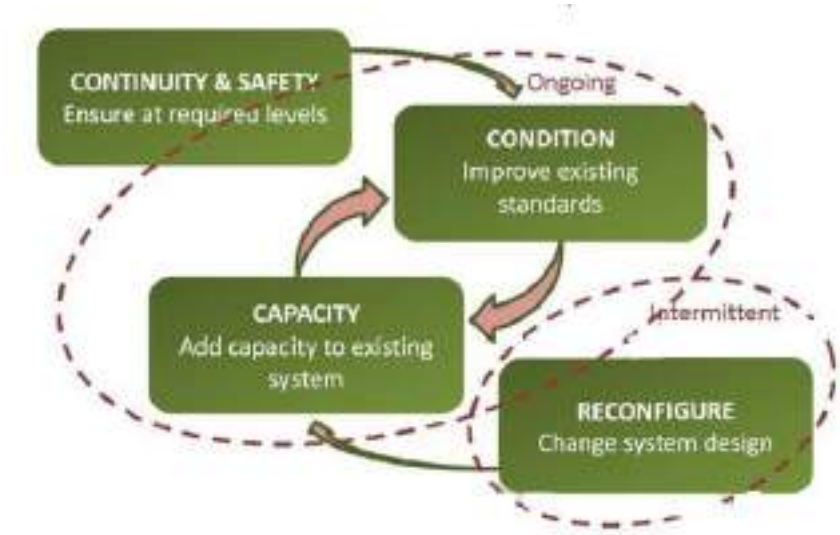


Figure 102: Limpopo: levels of transport interventions/development

Unpacking Figure 102, the levels of transport interventions are discussed in more detail below, in order of priority:

- **Providing access:** There is a need to ensure that communities have access to basic services and amenities (schools, hospitals, SAPS, community services). It also encapsulates linking and improving access to the economic investment areas such as the PHSHDAs and nodal growth areas.
- **Maintenance of existing network:** The maintenance of the existing road network is key. Both SANRAL and RAL have road management systems that are used to perform needs assessments of all roads, will prioritise works based on economic benefit, and will produce a maintenance programme based on available budget. The upkeep of the transport infrastructure, including industrial corridors, is important for the strengthening of linkages between rural and urban areas, and will support the mega, local economic development projects in Limpopo Province, including the Lephalale Logistics Hub, the Agro-processing Pharmaceutical Hub, and the Transport and Logistics Hub in Polokwane.
- **Upgrading:** This entails adding capacity (additional lanes), resulting in improved mobility. Improvement in mobility is required around Polokwane and Musina by means of the implementation of bypasses. Upgrading is also aimed at addressing safety concerns (hotspots) and there seem to be contracts in place to address this. Upgrading from gravel to paved surfaces is also one of the biggest needs identified by communities. However, from an economic point of view, the traffic levels need to be adequate (in the order of 300 to 400 vehicles per day) before upgrading to a paved standard is economically justified.

Outcome 1: A well-maintained road network, aimed at improving performance, and thereby making the road subsector and transport sector better positioned to support the economic growth of Limpopo.

Key activity: Promote the optimal allocation and application of resources for providing and maintaining transport infrastructure by:

- Proactively involving stakeholders in the strategic planning process
- Ensuring that the most cost-effective and appropriate approaches are used in the provision and upkeep of road infrastructure

Outcome 2: Inter-modal competition, and integration of modes and modal transfer opportunities are encouraged

Key activity: Implement the Strategic Infrastructure Projects and key projects from SANRAL Integrated Report

- Upgrading of Polokwane ring road to a dual carriage freeway
- Construction of new ring road at Musina as part of the N1, to facilitate cross-border traffic (this project is currently in progress)
- Improvement of the R573 from Siyabuswa to Marble Hall (impacted by cashflow shortages)

Key activity: No mode is prioritised above another, and the mix of modes should be determined by the nature (purpose, type, volume and distance) of transport demand, and the comparative advantages of each mode under specific circumstances.

A project that is imperative from a road safety point of view is:

- Upgrade of the Moloto Road (linking Gauteng, Limpopo and Mpumalanga Provinces) through traffic calming features, closing of illegal access routes, proper fencing and new pedestrian walkways

With regard to the interventions on the SANRAL roads in the Limpopo Province, a total of R14.607 billion was budgeted, which comprise of interventions that are in varying stages.

Table 44: SANRAL budget for road interventions in the Limpopo Province

Status	SANRAL Roads in Limpopo Province				
	N1	N11	R37	R555	Grand Total
Construction	1,365,000,000				1,365,000,000
Delayed construction		350,000,000	650,000,000		1,000,000,000
Design	760,000,000	550,000,000		1,000,000,000	2,310,000,000
Maintenance	195,000,000	60,000,000	45,000,000	55,000,000	355,000,000
Planning	2,860,000,000			2,300,000,000	5,160,000,000
Tender evaluation (contractors)			25,000,000	102,000,000	127,000,000
Tender stage (consultants)	4,290,000,000				4,290,000,000
Grand Total	**9,470,000,000**	**960,000,000**	**720,000,000**	**3,457,000,000**	**14,607,000,000**

Source: PEGAC IIDTW, April 2020

Roads infrastructure should be prioritised for PHSHDAs/PGP municipalities. RAL embarked on a road prioritisation process during the 2019/20 financial year. Of a total of 13,685km backlog of unpaved roads, a total of 3,793km was prioritised by district municipalities.

RAL will focus on projects that deliver better impact, insofar as job creation, SMME empowerment and economic growth is concerned. RAL remains committed to the idea of using roads as potent tools to end poverty, unemployment and inequality. RAL will ensure that every new road project brings much needed socio-economic relief to the Province's poor communities affected by COVID-19.

RAL presently has 24 active upgrading projects on strategic roads to villages, agricultural premises, special economic zones, tourism locations and mining industries within the Province.

Key road projects that were identified in 2012 as part of the Limpopo Freight Databank, include the following:

- Construction of road R33 through Modimolle to Lephalale for the improvement of the east-west corridor
- Identified lane additions on a number of sections, on the 2030 and 2050 horizon, including:
  - 2030:
    - R510 Section between Limpopo/North West Province border and R572 junction
    - N1 Section between R36 junction and Makhado
    - N1 Section between Makhado and R525 junction and at Musina
    - R71 Section between Moria and Tzaneen
    - R37 between Lebowakgomo and Burgersfort
    - N11 Section through Mokopane and at R516 interchange
  - 2050:
    - R523 Section between R521 and R524
    - Balance of R524 Section between Makhado and Thohoyandou
    - Local Sections of R36 (Tzaneen); R71 (Phalaborwa); R81 (Giyani)
    - R525 Section in Sekhukhune District
    - R33 Section between N1 and Modimolle
    - R101 Section between Gauteng North (Hammanskraal) and Bela-Bela
    - N1 Section between Gauteng North (Carousel Plaza) and Bela-Bela

As per the Limpopo Province Freight Databank and Transnet's long-term planning framework 2017, the following key projects were identified:

- Lephalale to Ermelo extension of the export coal line to the Waterberg coalfields
- Possible new line from the Waterberg coalfields to Richards Bay to provide for the increased demand
- Possible link to Botswana allowing the rail transport of coal from the Botswana coalfield to South Africa for consumption or export purposes
- The new Waterberg alignment will be built at 26t/axle from the current 20t/axle capacity
- The new alignment from Waterberg to Ermelo will be installed with 25kV alternating current traction.

Rail infrastructure linking Growth Points should be prioritised. With regard to passenger rail services, the following is envisaged:

- Regional passenger rail system: Moloto Corridor
- Pretoria-Polokwane high-speed rail

The role of Gateway International Airport should be strengthened. The National Airports Development Plan states that there is a proposal to develop Polokwane International Airport into a logistical hub for passenger and freight, thereby strengthening the role of Gateway Airport.

For the Polokwane International Airport, the planned developments include:

- Resealing of apron
- Cargo handling facilities (pre-feasibility study stage)

The Limpopo Aviation Strategy and Implementation Plan of 2010 foresees the following initiatives:

- Potential new domestic route from Polokwane International Airport to Lanseria in the long term, and potential new regional routes to several capital cities
- Potential new domestic route from Hoedspruit to Durban in the medium term
- Potential new regional routes from Hoedspruit to Vilanculos and Inhambane in Mozambique

Key freight projects planned in Limpopo Province are the following:

- Feasibility determination for, and project management of, the development of a multi-modal logistics hub in Polokwane
- One-stop border facility in Musina/Martins Drift (Groblersburg)

- Construction of the R33 between N1 intersection through Modimolle to Lephalale to improve development of East-West Corridor
- The construction of a new coal line to unlock coal deposits in the Waterberg

Other projects that are also crucial for the Province include:

- Co-ordination of an Integrated Transport System as a key enabler for economic development
- Polokwane Strategic Logistics Hub Initiative
- Development of a Provincial Transport Master Plan
- Support of public transport management
- Development of an Integrated Public Transport Network Plan for the Vhembe District
- Development of new subsidy networks and contracts

10.6.2.7 Infrastructure development and budgets

The provincial economy needs reliable infrastructure to connect supply chains and efficiently supply goods and services, within and across borders. Infrastructure connects households across rural and urban areas to higher quality opportunities for employment, healthcare and education. The Province therefore needs to deliver infrastructure at a rate which is acceptable to foster economic growth and create opportunities for its citizens.

Table 45: Limpopo Province: summary of the infrastructure payments and estimates by vote

	Outcome			Main appropriation	Adjusted appropriation	Revised baseline	Medium term estimates		
Rand thousand	2016/17	2017/18	2018/19	2019/20			2020/21	2021/22	2022/23
Vote 03: Education	829 216	1 301 995	955 051	1 051 986	1 081 245	1 081 245	1 258 291	1 261 150	1 319 820
Vote 04: Agriculture and Rural Development	169 245	144 165	201 723	223 426	195 866	195 866	220 214	319 044	170 763
Vote 06: Economic Development, Environment and Tourism	34 167	63 364	64 678	45 267	38 167	38 167	20 000	20 000	20 000
Vote 07: Health	678 526	652 027	651 784	656 200	619 156	619 156	952 819	754 798	789 904
Vote 08: Transport	26 000	19 779	5 691	43 021	43 021	43 021	51 574	50 462	51 906
Vote 09: Public Works, Roads and Infrastructure	687 849	2 595 040	1 956 343	2 153 433	2 669 648	2 669 648	3 370 658	2 995 219	3 042 367
Vote 10: Sport, Arts and Culture	35 666	35 526	35 405	47 128	54 828	54 828	79 759	62 448	66 648
Vote 11: Co-operative Governance, Human Settlements and Traditional Affairs	1 518 244	1 254 461	1 223 419	1 337 497	1 411 594	1 411 594	1 100 412	1 131 408	1 176 418
Vote 12: Social Development	23 545	30 138	37 705	47 846	60 105	60 105	71 794	75 381	79 155
Total Infrastructure (including non infrastructure items)	**4 002 458**	**6 096 495**	**5 131 799**	**5 605 804**	**6 173 630**	**6 173 630**	**7 125 521**	**6 669 910**	**6 716 981**

Source: Limpopo Provincial Treasury

Table 45 depicts that in the 2020/21 financial year, the Department of Public Works, Roads and Infrastructure is allocated a budget of R3,370 billion, or 47.3%, followed by CoGHSTA with an allocation of R1,1 billion or 15.4%, the Department of Education with R1,258 billion (18.7%) and the Department of Health with R952,8 million (13.4%). The provincial infrastructure is mainly funded through conditional grants and Provincial Equitable Share.

The Limpopo Provincial Government has allocated R20,5 billion for the delivery of infrastructure over the 2020 MTEF period. This allocation will fund infrastructure projects of various categories, in line with the overall provincial strategic objectives, and the project details are captured in the project list of each department.

Table 46: Limpopo Province: summary of provincial infrastructure payments and estimates by category

Rand thousand	Outcome			Main appropriation	Adjusted appropriation	Revised baseline	Medium term estimates		
	2016/17	2017/18	2018/19	2019/20			2020/21	2021/22	2022/23
Existing infrastructure assets	1 910 161	4 291 571	2 379 051	3 510 185	3 749 207	3 749 207	4 122 939	3 533 575	3 748 539
Maintenance and repairs	333 845	1 028 473	1 270 466	1 602 322	1 546 769	1 546 769	1 968 972	1 720 071	1 827 694
Upgrades and additions	1 028 977	2 171 051	940 067	1 316 496	1 599 488	1 599 488	1 943 645	1 652 304	1 821 518
Rehabilitation and refurbishment	547 339	1 092 047	168 518	591 367	602 950	602 950	210 322	161 200	99 327
New infrastructure assets	450 300	410 678	320 940	555 547	549 831	549 831	567 639	541 631	272 568
Infrastructure transfers	1 641 997	1 353 779	2 178 704	1 447 350	1 512 247	1 512 247	1 220 689	1 361 151	1 298 906
Infrastructure transfers - Current	-	11 429	490 483	3 750	3 750	3 750	2 000	-	-
Infrastructure transfers - Capital	1 641 997	1 342 350	1 688 221	1 443 600	1 508 497	1 508 497	1 218 689	1 361 151	1 298 906
Infrastructure: Payments for financial assets	-	-	-	-	-	-	-	-	-
Infrastructure: Leases	-	-	-	-	-	-	-	-	-
Non Infrastructure	-	40 468	253 104	92 722	362 345	362 345	1 214 254	1 233 553	1 396 968
Total Infrastructure (including non infrastructure items)	4 002 458	6 096 495	5 131 799	5 605 804	6 173 630	6 173 630	7 125 521	6 669 910	6 716 981

Source: Limpopo Provincial Treasury

Over the 2020 MTEF, R20,5 billion is allocated across various investment categories. A total budget of R1,4 billion or 6.7% is allocated over the MTEF for new infrastructure, mainly construction of new clinics, libraries, schools, upgrading of gravel roads to tar, centres for place of safety, nature reserves and houses.

The estimated budget allocation for rehabilitation and refurbishment is R470,8 million or 2.3% over the 2020 MTEF, upgrading and additions of existing facilities amount to R5,4 billion or 26.4%, while maintenance is allocated a total amount of R5,5 billion or 26.9%. The provincial treasury developed the terms of reference and guidelines to assist the departments with the acceleration of planning and design of projects for the 2020/21 financial year, including the later years of the MTEF period.

Whilst it is difficult to predict the number of environmental authorisation applications that will be made in the next LDP iteration (2020-2025), it is probable that they will follow a similar trend (2013-2018). It is, however, a known fact that the mining communities have made an investment commitment of R25 billion in the next five years in terms of mining projects, graduating to operations and expansion of the current mining operations. Furthermore, from the Musina-Makhado investment pipeline of R150 billion for the seven metallurgical plants and one coal-fired power station, and the R25 billion for Tubatse Platinum group's metal processing, one can conclude that a consecutive estimate of at least R30 billion can be realised in the next five years, given that both projects are still in the planning phase.

It can be estimated (with a margin of error) that a total of R220 billion will be invested in the Limpopo economy in the next five years, of which R35 billion is from the public sector and R185 billion from private sector investment. Hence, in summary, if the total output remains the same at R360 billion per annum, by 2025 a five-year output will total R1,8 trillion, so the infrastructure investment of R220 billion over five years will constitute 12% percent of the GDP. Therefore, while at national level, the set target for investment as a percentage of GDP is 20%, which constitutes a rather aspirational target towards the NDP target of 2030. What must be indicated is that the lion share of private sector investment is dedicated to production infrastructure, meaning that what remains as public infrastructure investment, is R35 billion over the five-year period, constituting 2% of GDP.

The mega investment projects (planned for 2020-2025) in Limpopo, have the potential to create many jobs. However, the Province still has a huge task of curbing the rising number of people who are discouraged to look for employment. This number has been rising since 2013, from 397,000 to 452,000 in 2018. Since 2013

to date, it is disheartening to note that the number of unemployed people were less than those who are discouraged to seek employment.

10.7 Priority 5: Accelerate social change and improve quality of life of Limpopo's citizens

10.7.1 Summary

It is envisioned in the NDP that, in 2030, residents of Limpopo will be more conscious of that which they have in common, than their differences. Their lived experiences will progressively undermine and cut across the divisions of race, gender and ethnic divides. By 2030 there must be basic social protection guarantees aimed at preventing or alleviating poverty, and protecting against vulnerability. These guarantees should be easily accessible and available to those who need them the most.

Transforming society and uniting the country will be hard to achieve without addressing social division, exclusion, and inequality. This will lead to reduced poverty, active citizenry and equity. It is therefore imperative to shift the attitudes of society.

The Social Cluster and the Justice, Crime Prevention and Security (JCPS) Cluster, are jointly responsible for the roll-out of programmes to achieve this priority.

Departments that contribute to the Social Cluster include the:

- Department of Education (Chairs the Cluster)
- Department of Health (Deputy Chair of Cluster)
- Department of Social Development
- Department of Sport, Arts and Culture

Additional departments that participate in the Social Cluster include:

- Co-operative Governance, Human Settlements and Traditional Affairs;
- Transport and Community Safety;
- Office of the Premier;
- Municipalities – provision of certain categories basic services;
- Office of the Premier;
- Home Affairs – population register management;
- South African Social Security Agency (SASSA) – social protection of vulnerable groups;
- Municipalities – provision of certain categories basic services.

The following Departments form part of the JCPS Cluster:

- Department of Transport and Community Safety (Chair)
- Department of Social Development (Deputy Chair)
- Office of the Premier
- South African Police Service
- Department of Justice and Constitutional Development
- Department of Correctional Services
- Department of Co-operative Governance, Human Settlements and Traditional Affairs
- Department of Economic Development, Tourism and Environmental Affairs
- Department of Home Affairs
- National Prosecuting Authority
- State Security Agency

- Border Management Agency

10.7.2 Strategic response

The aim is to create an environment that makes room for all nationalities, races, ethnicities, genders, ages, as well as differently-abled persons. There is also a strategic imperative to move people away from a dependence on social grants, towards becoming income-earners. Priority 4 addresses access to educational opportunities and adequate healthcare, which forms the basis of social well-being and economic growth. The focus under this priority will be on addressing marginalisation, skills development and social development.

Outcome 1: Invest in future leaders
Key activity: Implement the Limpopo Youth Development Strategy

Outcome 2: Continue to drive gender mainstreaming
Key activity: Implement gender equity targets for all departments

Outcome 3: Ensure greater representation of differently-abled people across industries and staff levels
Key activity: Implement inclusion equity targets for all departments

Outcome 4: Increase the number of schools implementing schools sport programmes
The Department of Sport, Arts and Culture has entered into a Memorandum of Understanding with the Department of Education to ensure implementation of the school sport programme in the Province. The Department of Social Development also plays a crucial role in providing psycho-social services to the learners. Evidence exists that sport and physical activities can benefit education immensely, and that sport presents the child at school with life skills.

The Department of Sport, Arts and Culture will continue to monitor implementation of MIG programmes for sport infrastructure in order to address the lack of sport facilities and infrastructure in most communities, and to assist municipalities to provide for such facilities where possible.

Due to the COVID-19 pandemic, sporting and cultural activity programmes have been placed on hold, but the Cluster will continue preparing the infrastructure for the return to normality.

Key activities:
- Provide sport facilities at schools
- Provide sport facilities in communities

Outcome 5: Increase roll-out of the Mass Participation Programme
Mass participation in sport and recreational activities is a crucial instrument in the promotion of Social Cohesion and Nation Building, as well as the promotion of healthy lifestyles among communities. Closely linked to these are the tourism benefits associated with sporting, and heritage and cultural activities which make Limpopo unique.

The Department of Sport, Arts and Culture will lead the Cluster in strengthening collaboration with the Departments of Education, Social Development, and Health, and the municipalities. The Cluster will co-operate with the Department of Health on health and key stakeholders on wellness and healthy lifestyle campaigns.

Key activities:
- Implement the hub system in the five districts
- Establish art centres in the five districts
- Roll out wellness and healthy lifestyle campaigns

Outcome 6: Increase access to information and learning material
Key activities:

- Improve internet services across the Province
- Provide library infrastructure at schools and in communities where such infrastructure is lacking, thus ensuring equitable access by all citizens of Limpopo
- Finalise operationalisation of the Provincial Archives
- Continue to assist government institutions with record management, inspections and approval of records systems
- Continue documentation of significant oral history for future generations
- Fully adopt Archivalia
- Fully migrate to e-Learning and e-Library
- Use online library services to increase access to library facilities

Outcome 7: Reduce levels of crime and violence against vulnerable groups
Key activities:
- Implement the Limpopo Crime Prevention Strategy
- Extend use of the common reporting tool between SAPS, the Department of Health and the Department of Education
- Increase awareness of social and electronic media platforms
- Intensify integrated awareness campaigns and support initiatives on gender-based violence
- Facilitate skills development programmes among vulnerable groups
- Continue the implementation of campaigns against racism, sexism, homophobia and xenophobia

Outcome 8: Improve care and protection of vulnerable groups
Key activities:
- Implementation of the comprehensive social protection system
- Implement sustainable community development interventions (e.g. food and nutrition security initiatives)
- Provide sanitary products to indigent girls in schools
- Improve the registration and payment systems of social grants

Outcome 9: Improve school safety
Key activities:
- Implement School Safety Programmes through collaboration with SAPS
- Read the preamble of the Constitution in school assembly once a week
- Implement the Crime prevention through environmental design (CPTED)/ EPWP project at schools to ensure safe access by learners
- Monitor implementation of the School Safety programme by the SAPS at schools

Outcome 10: Identity of all persons in South Africa must be known and secured
Key activities:
- Finalise reported fraudulent marriages
- Issue refugee identity document (ID) and passports
- Movement of persons in and out of the country managed according to a risk-based approach
- Issue enabling documents to foreigners efficiently and securely

Outcome 11: Well-managed borders
Key activity: Implement Integrated Border Management Strategy (IBMS) to defend, protect and secure borders
Key activity: Improve cargo screening at ports of entry

Outcome 12: Build active citizenry
Key activity: Encourage involvement of citizens in the IDP processes, school governing body (SGB), community police forum (CPF), etc.

10.8 Priority 6: Spatial transformation for integrated socio-economic development

10.8.1 Summary

Aligned to the MTSF Priority 4 and the NDP, the primary outcome of new development in the Province should be to achieve spatial transformation and asset poverty alleviation through improved integrated settlement development and linking job opportunities and housing opportunities, whereby all residents have access to at least basic engineering, economic and social infrastructure and security of tenure. The spatial transformation of human settlements will be achieved through the consolidation of multi-programme investment in the eleven declared Priority Human Settlements and Housing Development Areas (PHSHDAs) (urban focus), and the Provincial Growth Point Programme.

There is a need to transform the functioning of human settlements so as to observe meaningful and measurable progress in creating more functionally integrated, balanced and vibrant urban settlements by 2030. This requires institutional capabilities for effective co-ordination and spatial investment decisions to effect spatial transformation across all geographic scales supported by policies, plans and instruments to reduce travel distances and costs, especially for poor households.

The Cluster taking responsibility for implementation of this priority in the Limpopo Province, is the Governance and Administration Cluster. The departments mainly involved include:

- Office of the Premier
- CoGHSTA
- Education
- Provincial Treasury
- Public Works, Roads and Infrastructure
- District Municipalities

Additional stakeholders include:

- The Housing Development Agency, Social Housing Regulatory Authority, Eskom, RAL, SANRAL, Estate Agency Affairs Board, Polokwane Housing Association
- Private sector, developers and investors, including the mining sector
- Funding institutions such as the National Housing Finance Corporation

10.8.2 Strategic response

The NDP and MTSF identifies the following policy imperatives and impact to be realised:

- Spatial transformation through multi-programme integration in priority development areas (urban focus)
- Asset poverty alleviation through development on well-located land with security of tenure
- Improved land administration and spatial planning, focusing on integration
- Rapid and sustainable land reform and agrarian transformation
- Increased access to quality basic infrastructure and services
- Creation of strong rural-urban linkages
- Densification of cities
- Improvement of transport, and alignment of human settlements planning with public transport planning
- Moving people closer to their place of work
- Upgrading of informal settlements on well-located land, and ensuring a greater variety of housing typologies for different income brackets
- Building houses on poorly-located land must be halted

- Security of tenure for communal farmers, especially women, must be addressed

10.8.2.1 Targeted public investment

The focus of public investment will be on spatial targeting, whereby resources are co-ordinated and directed to selected areas in response to identified development opportunities, with the key outcomes of spatial transformation.

Public investment will be consolidated, and targeted at the following identified spatial targeting areas in the Province:

- The 11 declared Priority Human Settlements and Housing Development Areas are the key focus areas for infrastructure investment and asset poverty alleviation in order to achieve spatial transformation in the delineated areas of national and provincial nodes.

District	Municipality	Number	Declared PHSHDA name
Capricorn	Polokwane	1	Polokwane CBD and surrounds
Capricorn	Polokwane	2	Polokwane R71 Corridor
Mopani	Greater Giyani	3	Greater Giyani
Mopani	Greater Tzaneen	4	Nkowankowa Node
Mopani	Greater Tzaneen	5	Tzaneen Core
Sekhukhune	FetakgomoTubatse	6	FetakgomoTubatse Development Area
Vhembe	Musina	7	Musina-Makhado SEZ
Vhembe	Musina/Makhado	8	Musina Town
Vhembe	Thulamela	9	Thohoyandou Node
Waterberg	Lephalale	10	Lephalale/Marapong
Waterberg	Thabazimbi	11	Greater Northam

- The five prioritised Mining Towns in Distress Municipalities for revitalisation of mining communities

District	Mining Town Municipality
Sekhukhune	FetakgomoTubatse Municipality
Sekhukhune	Elias Motsoaledi Municipality
Waterberg	Lephalale Municipality
Waterberg	Thabazimbi Municipality
Waterberg	Mogalakwena Municipality

- The spatial nodes classified in the National Spatial Development Framework (NSDF) and the 10 Provincial Growth Points (PGPs) derived from the Limpopo Spatial Development Framework (2016). These following areas are prioritised for co-ordinated and high-priority development support:

District	National spatial node	Provincial Growth Point Municipality
Sekhukhune	SEZ and Regional Development Anchor	FetakgomoTubatse Municipality
Sekhukhune	-	Elias Motsoaledi Municipality
Waterberg	Lephalale Regional Development Anchor	Lephalale Municipality
Waterberg	-	Thabazimbi Municipality
Capricorn	Mokopane Regional Development Anchor	Mogalakwena Municipality
Capricorn	Polokwane National Urban Node	Polokwane Municipality
Vhembe	Musina Import/Export Node and SEZ	Musina Municipality
Vhembe	Makhado Regional Development Anchor	Makhado Municipality
Mopani	Tzaneen National Urban Node	Greater Tzaneen Municipality
Mopani	Phalaborwa Regional Development Anchor	Ba-Phalaborwa Municipality

In addition to the above, Thohoyandou and Giyani have been identified as Regional Development Anchors in the NSDF, but at provincial level the areas are regarded as district growth points and not part of the Provincial Growth Point Programme. The NSDF furthermore does not recognise Elias Motsoaledi and Thabazimbi as Regional Development Anchors. The status of nodes would require a review of the PGPs through the Limpopo SDF revision.

The Executive Council (EXCO) developed this concept further by directing immediate attention to the Musina-Makhado Corridor, and the FetakgomoTubatse and Lephalale Municipalities. Public housing and infrastructure development programmes will be prioritised in these municipalities to unlock and support the local development potential.

The Limpopo Provincial Spatial Development Framework (LSDF 2016) established a provincial hierarchy of nodes and settlements. Some of the identified points are in fact clusters of settlements that function, or could function, as single entities, and that contain a substantial number of people. The intention is to direct public and private investment to these identified nodes in order to stimulate the creation of critical mass. The intention is also to limit the continued low-density sprawl of residential development, particularly in view of allowing for efficient infrastructure service delivery, protecting the available natural resources, as well as conserving land for economic purposes such as agriculture, tourism or, in some instances, mining.

In summary, with regard to public investment, the Province's intention is to focus infrastructure investment (engineering, social and economic) in the identified PHSHDAs as the target areas for spatial transformation and poverty alleviation.

10.8.2.2 Integrated and transformed human settlements

Housing trends in the Province already show distinct patterns of urbanisation. The Province will partner with national and local government, as well as with the private sector, to ensure a more compact urban growth. The Province's approach is one of creating stronger nodes, while preserving agricultural land, which will yield environmental, social, and most importantly, economic benefits.

The 2019 - 2024 Medium Term Strategic Framework focuses on achieving the impact of spatial transformation through improved integrated settlement development and by linking job opportunities and housing opportunities, thereby realising the following three outcomes:

- Spatial transformation through multi-programme integration in the 11 priority human settlements and housing development areas (urban focus)
- Adequate housing and improved quality of living environments
- Security of tenure

Delivery will be fast-tracked through the following interventions:

- Aligned with the MTSF target, integrated implementation plans and programmes should be developed for each of the Priority Human Settlements and Housing Development areas, to provide clear direction and a road map for the integrated development of the PHSHDA, and for the consolidation of human settlements interventions, social infrastructure and engineering infrastructure, to support the investments. The plans will be followed by the establishment of institutional arrangements to facilitate and manage the implementation and funding of the PHSHDA implementation programme.
- Provincial and municipal spatial development frameworks should be reviewed to align with the National Spatial Development Framework, and to incorporate the PHSHDAs. This includes ensuring SPLUMA compliance for all municipalities in the Province, especially those prioritised for public investment, in order not to delay planning approvals.

- All land acquired or released for human settlements within the PHSHDAs, should be rezoned, or have approved land use rights by 2024, aligned with the MTSF target. This includes project packaging, feasibility and business plan development.
- The supply of bulk infrastructure to the PHSHDAs should be unlocked to realise the development of the PHSHDAs. The supply of bulk infrastructure is specifically relevant to Musina, Polokwane and Tzaneen. The interventions should be informed by clear feasibility studies and business plans, and implementation arrangements.
- Capacitation and training of project management resources responsible for managing the increasing complexity of projects and government programmes
- Investigate alternative funding streams, or potential provincial partnership funds, for the delivery of human settlements and infrastructure, especially rental housing (social housing and student accommodation)
- Development of upgrading plans, social compact and sustainable livelihood plans for all informal settlements in order to have clear response plans to implement over the MTSF, and through SIP 32: National Upgrading Support Programme (NUSP)

The National Department of Human Settlements will manage the implementation of the plans expressed in the MTSF and will co-ordinate this through the Social and Economic Clusters. It will report through MinMec, Technical MinMec, Human Settlements Technical Implementation Forum and Human Settlements Delivery and Co-ordination/Forums established by all three spheres of government at national, provincial and local levels.

The Province further recognises the challenges of dispersed rural expansion and the growth of informal settlements. To address this, the Province is committed to providing support and an enabling environment by:

- Ensuring that bulk infrastructure investment is aimed at the declared PHSHDAs and identified nodal points to unlock development potential
- Ensuring that social infrastructure investment (including health, education and other community facilities) is consolidated at the identified nodal points, to stimulate the creation of critical mass
- Ensuring that public bulk and reticulation engineering infrastructure is well maintained to minimise interruptions and wastage
- Promoting the consolidation of new housing development within PHSHDAs and especially encouraging infill development between former white towns and historic black townships
- Maintaining public buildings in good order, as well as public spaces, public parks and business districts
- Working with the Department of Rural Development and Land Reform to finalise land claims that are still pending
- Ensuring that informal settlement and rural residents have access to basic engineering services
- Part of the Province's oversight role, is to liaise with the Provincial Council of Traditional Leaders regarding the proposed spatial targeting approach, as far as it impacts sprawling rural villages, service delivery, as well as environmental conservation.

10.8.2.3 Taking care of the environment

Nature conservation is one of the anchors of the provincial tourism economy. The provincial priorities in this regard are focused on Resource Conservation and Management. The priority projects are namely:

- Commercialisation of provincial nature reserves – feasibility studies are underway at Masebe, Lekgalameetse and Rust De Winter
- Support Land Care Programme
- Continually enhance management of provincial nature reserves and maintenance of access roads to them
- Introduce culling for venison in nature reserves by communities located around protected areas
- Partner with neighbouring communities to increase and enhance co-managed nature reserves

10.8.2.4 Integrated and smart initiatives for rapid urbanisation

Tzaneen aspires to become a city through the integration of the Tzaneen and Nkowankowa urban nodes. This vision aligns with the NSDF categorisation of Tzaneen as a national urban node that should emerge as a city within the Eastern Escarpment Transformation Corridor.

The towns of Musina and Burgerfort (FetakgomoTubatse) are expected to experience the highest urbanisation rates over the planning period. Lephalale, as a growth point, has developed its green development strategy to direct future expansion. The City of Polokwane has developed a Smart City Vision 2030.

The above factors lend the nodes of Polokwane, Tzaneen, Musina and Lephalale to be prioritised as smart cities in the Province. This does not mean that 'smart' solutions may not be implemented elsewhere, but there is a need for an integrated approach in the above four cities in order to obtain data at scale, and consequently realise cross-sectoral benefits. The cities should ideally be treated as experiments in 4IR implementation. The first priority in this regard, as mentioned in Priority 3, is to establish a dense telecommunication and internet network.

10.9 Priority 7: Strengthen crime prevention and social cohesion

10.9.1 Summary

The Province has committed to creating an environment where people living in Limpopo will feel safe at home, at school and at work, and are able to enjoy a community life free of fear. There will be zero tolerance for serious crime, sexual offense or corruption. Citizens should be confident that trespassers will be held accountable and that the law will protect the innocent.

This priority reflects on Priority 6 of the MTSF, which seeks to transform and unite the country to raise consciousness of the importance of shared values, rather than differences, based on race, gender and class; to truly realise a united, democratic, non-sexist, non-racial and equal society; to reduce the level of crime by creating a transparent and just criminal justice system including strengthening the capacity investigations and prosecutions, and improving community participation in public policing; and to improve the level of public trust in the public sector and credibility of public institutions by reducing public sector corruption and by raising the level of professionalism within the South African Police Service.

This crime prevention strategy goes hand-in-hand with LDP Priority 1 (transformed public service), Priority 2 (growing the economy with increased economic opportunities), Priority 3 (increased education) and Priority 5 (social change).

The Justice, Crime Prevention and Security (JCPS) Cluster has the responsibility to co-ordinate the dispensing of justice, crime prevention and ensuring the security of the citizens of Limpopo. The following departments form part of the JCPS Cluster. The cluster also includes important national public sector parties outlining the need for cooperation across all spheres of government:

- Department of Transport and Community Safety (Chair)
- Department of Social Development (Deputy Chair)
- Office of the Premier
- South African Police Service
- Department of Justice and Constitutional Development
- Department of Correctional Services
- Department of Co-operative Governance, Human Settlements and Traditional Affairs
- Department of Economic Development, Tourism and Environmental Affairs

- Department of Home Affairs
- National Prosecuting Authority
- State Security Agency
- Border Management Agency
- Correctional Services
- South African Police Service (SAPS)
- National Prosecuting Authority (NPA)
- South African Social Security Agency (SASSA)
- State Security Agency (SSA)

10.9.2 Strategic response

The Provincial JCPS Cluster is mandated to ensure implementation of the Limpopo Provincial Crime Prevention Strategy, which comprises the following pillars:

- Rural safety
- Social crime prevention
- Trans-border and organised crime
- Situational crime prevention
- Community policing and safety
- Improving the criminal justice system
- Youth crime prevention

Some of the indirect social aspects of the crime reduction strategy are addressed in the other priorities mentioned. The strategic response under this priority is focused on establishing and maintaining an efficient and effective crime prevention and criminal justice system.

There are eight outcomes to strengthen crime prevention and social cohesion:

Outcome 1: Increase policing and prosecution in order to reduce the overall levels of serious crime
Key activity: Improve conviction rates of sexual offences, gender based violence and femicide
Key activity: Improve conviction rates of trio crimes (hijackings, house and business robberies)
Key activity: Improve conviction rates of copper thefts and essential infrastructure prosecutions
Key activity: Conduct Domestic Violence Act (DVA) outreach initiatives
Key activity: Reduce repeat offending and recidivism by parolees

Outcome 2: Crime prevention and support
Key activity: Implement the Integrated Social Crime Prevention Strategy
Key activity: Children who are in conflict with the law should complete diversion programmes
Key activity: Implement victim empowerment programmes

Outcome 3: Reduce substance abuse and increase rehabilitation
Key activity: Implementation of substance abuse programmes at in-patient treatment centres
Key activity: Implementation of substance abuse community-based treatment services

Outcome 4: Secure cyberspace
Key activity: Improve conviction rates of cybercrimes

Outcome 5: Ensure domestic stability
Key activity: Stabilise public protests by conducting community feedback meetings
Key activity: Improve conviction rates of violent protests and industrial actions
Key activity: Conduct road safety interventions
Key activity: Regulate liquor businesses for compliance

Key activity: Fast-track child justice cases
Key activity: Provide support to community structures engaged in the fight against crime

Outcome 6: Improve environmental compliance
Key activity: Conduct environmental compliance inspections

Outcome 7: Promote safety of tourists in the Province
Key activity: Marketing the Province for domestic and international tourists
Key activity: Implement tourism awareness programmes

Outcome 8: Modernise crime prevention and case handling in an integrated and holistic way (systems and equipment)
Key activity: Roll out Audio Visual Remand (AVR) systems
Key activity: Appoint additional court administration staff

10.10 Priority 8: Economic transformation and job creation through regional integration

10.10.1 Summary

The National Development Plan and Agenda 2063 sets out a Vision for a future Africa, and the world. Limpopo has a unique advantage in that it borders three countries, namely Botswana, Zimbabwe and Mozambique. This presents an opportunity to export goods and services to these neighbouring countries, establish trade relations, and forge an integrated region, in support of an integrated continental and global political economy. Exports and trade have been identified as a key driver for economic growth.

The Cluster that is mainly responsible for execution of this priority is the Economic Cluster. The departments that contribute to the area include:

- Office of the Premier – promote sound international relations
- Limpopo Department of Economic Development, Environment and Tourism (LEDET) – economic development and export promotion
- Agriculture and Rural Development – economic development and export promotion
- Transport and Community Safety – transport network planning and cross-border safety

The following municipalities also play a key role in terms of cross-border relations including forging partnerships and the provision of goods and services: Lephalale (Waterberg District Municipality), Musina and Collins Chabane (Vhembe District Municipality).

10.10.2 Strategic response

This section reflects Priority 7 of the MTSF, which seeks to create a better Africa and the world, by:

- Raising foreign and domestic investments
- Promoting tourism by attracting international and regional tourists
- Enhancing regional integration with increased and balanced trade in the SADC region to contribute to the growth of intra-African trade
- Promoting diversification and increased exports
- Promoting greater peace, security and stability in SADC and the greater African continent

The strategic response towards improved regional interconnectedness is largely dependent on national policies and agreements, including the need for harmonisation of standards and policies, which is a challenge.

Outcome 1: Facilitate regional movement
Key activity: Since the Limpopo Province is the gateway to Africa, the Province is responsible for, and will benefit from, keeping regional movement networks/infrastructure in good order (road and rail) to facilitate the movement of goods and people. It is noted that Priority 8 reflects on border security to properly manage in-migration and freight movement.

Outcome 2: Initiate/contribute to regional infrastructure projects
Key activity: Regional Integration for African Co-operation and Development calls for regional and mutually-beneficial infrastructure projects to unlock long-term socio-economic benefits by partnering with African economies. The projects involve transportation, water and energy.

Key activity: Government will advance developmental co-operation and integration to achieve industrial development, as well as infrastructure development and market integration, through contributions to the revision of the SADC Regional Integrated Strategic Development Plan (RISDP). Limpopo will promote sustainable development and continental integration by implementing and contributing to the implementation of Agenda 2063 programmes and plans.

Outcome 3: Increase regional exports
Key activity: With regard to sectors, there exists a potential to grow the tourism, logistics, agriculture and manufacturing activities of the region through greater inter-connectedness
Key activity: Explore the potential for regional value-chains

The envisaged Special Economic Zone (SEZ) at Musina-Makhado is focused on logistics, import, export and beneficiation. The location of the SEZ makes it the ideal hub to serve as the logistics port to other African countries. The SEZ will also be linked to other national infrastructure projects aimed at promoting regional integration for African co-operation and development.

Outcome 4: Support regional and continental processes and policy development in support of economic growth and regional security
Key activity: The Limpopo Province will support regional and continental processes to respond to, and resolve, crises, promote peace and security, strengthen regional integration, significantly increase intra-African trade and champion sustainable development in Africa.

Key activity: Work with national government to –
- Set up an automated licensing system for key export documentation
- Review border control procedures, plant and animal health standards, security protective service (SPS) and veterinary protocols to ensure correct protocols are followed
- Ensure that updated procedures are implemented, and procedures are audited on a regular basis

- Manufacturing share (percentage of) to the GDP: This is a proxy for industrialisation and economic diversification, and the data source will be StatsSA
- Poverty (percentage) to the total population: The lower bound (food) poverty, using the international yardstick of households with less than USD2.24, converted to the prevailing exchange rate, and the data source will be StatsSA

11.3 High-level priority targets of the LDP 2020-2025

Following from the updated understanding of the provincial economy, natural environment, infrastructure and communities, the Province has identified eleven high-level priority targets to frame the Limpopo Development Plan 2020-2025.

Table 48: High-level priority targets

	Outcome Indicator	Baseline	Target 2020-25
1.	Increased GGP* contribution to national GDP	7.2%	9%
2.	Number of jobs created	448,000	500,000
3.	Increased GDP growth rate	1.4%	2%
4.	Reduction of official unemployment	23.1% (41.1% expanded)	14%
5.	Reduction of income inequality - Gini coefficient from 0.57 to 0.50	0.57	0.50
6.	Reduced % of people living in poverty	52%	20%
7.	Increased matric pass rate from 73.2% to 80%	73.2%	80%
8.	Increased access to basic services:		
	• Improved access to water	74.1%	80%
	• Improved access to sanitation	58.6%	65%
	• Improved access to electricity	92.7%	95%
9.	Reduction of HIV and non-communicable diseases:	51%	50%
	• Reduction of HIV Aids mortality	91-72-89	90-90-90**
	• Premature mortality due to non-communicable diseases	36%	26%

** GGP = Gross Geographic Product*

*** 90% of all people with HIV know their status, 90% of those who know their status and are HIV positive are put on treatment and 90% of those on antiretrovirals are virally suppressed*

11.4 Government sector contributions to the LDP

Government departments (national and provincial, including its entities), district and local municipalities, will elaborate on their contribution to the above targets through five-year plans, programs/projects and budgets (Programmes of Action (POAs)) to support the implementation of the LDP priority targets.

The institutionalisation of the District Development Model (DDMs) will be key to ensure alignment and co-ordination between various spheres of government and private sector in achieving the targets.

In addition, the key success factors in the realisation of the LDP lies in addressing and securing adequate project preparation and implementation, as these two factors were flagged as the two weaknesses for not realising all the targets in the previous years. The Project Management Unit and its capacitation and support

11 LDP IMPLEMENTATION FRAMEWORK

11.1 Introduction

At the heart of the approach towards the effective implementation of the LDP, will be:

1. A Cluster-based approach from provincial government in the form of a Programme of Action (POA), driving the LDP Strategy within their realm of influence
2. The strategic imperative to create an enabling environment by providing the requisite infrastructure backbone
3. Mobilisation of and partnership with key stakeholders such as the private sector, civil society, academia, Institution of Traditional Leadership, youth formations and organised labour, towards the realisation of a future full of hope
4. A strong monitoring and evaluation framework to strengthen accountability

The LDP Implementation Plan lists the high-level targets and indicators for each of the eight development priorities over the planning period. It is envisaged that the LDP Implementation Action Plan (IAP) should help to facilitate and co-ordinate stakeholders' input into achieving the long-term development vision of the Province, the foundation of which is based on advocating for "development about people".

11.2 Alignment of LDP and NDP targets

The Limpopo Development Plan 2020-2025 is the second iteration towards the National Development Plan 2030. The table below depicts the Limpopo Development Plan 2020-2025 economic targets and how they relate to the 2030 targets, per indicator.

Table 47: Macro-economic outcomes (2020-2025)

Measures		Baseline (2014-2019)	Target 2025	Target NDP 2030
Growth	GDP growth	1.2%	2%	5.4%
Unemployment	Formal rate	18%	16%	6.0%
Limpopo economy contribution to national GDP	GGP share of national	7.2%	9%	
Employment	Number of employed	1.4 mil (448,000)	1.9 million (500,000)	2.4 mil
Investment	% of GDP	10.0%	12.0%	30.0%
Manufacturing % to GGP	Manufacturing share to total GGP	2.3%	3%	6%
Inequality	Gini coefficient	0.57	0.50	0.40
Poverty	% of the total population	52%	20%	0.0%

Three outcomes have been added to the NDP targets:

- Investment share (percentage of) to the GDP: This is a proxy for the gross fixed capital formation, or infrastructure investment, to the economy. It is constituted by the sum of the rand value of both the public (municipal and provincial) and private sector. The data source for this indicator, will be both the provincial and municipal MTEF infrastructure budgets for economic and social infrastructure (for both new infrastructure and maintenance). and the private sector will be derived from the environmental authorisations (EIA)

to departments and municipalities in the Province, as well as the Project Preparation Fund, are key contributions of government.

11.5 Private sector contributions to the LDP

The realisation of the LDP targets require a combined effort between government and private sector. Involvement of the private sector, from the feasibility and project preparation phases, will ensure that an inclusive approach towards implementation is achieved.

In addition, the private sector can contribute with business and technical expertise, project and programme management, funding, infrastructure, property and capacity support.

A number of opportunities and initiatives are pursued with private sector and include inter alia the following:

Economic Resilience Model
The Economic Resilience Model (ERM) is aimed at determining the degree of shift away from economic dependence on the mining sector, towards a more diversified economic landscape, which will allow mining-dependent communities to survive economically once a mining operation is terminated.

Leveraging the digital market to optimise the opportunities within the agri-value chain
The opportunity seeks to digitise the trade of agricultural services, products and produce to optimise opportunities within the agri-value chain.

Fresh produce markets
Market operations seeks to establish fresh produce markets in areas that will decentralise much of the trade in fresh produce throughout the country.

Lephalale Land Management Initiative
A mine related farming operation adjacent to the Grootegeluk mine has the potential to be an enabler to substantially up-scale the game farming operations in the Limpopo province through collaboration with corporate landowners, and other entities or communities who own tracts of land. A study is underway towards optimising the business potential of the farms through game farming, and related spin-offs will maximise the impact on the success of the venture, community benefit and empowering the game farming sector locally and on a provincial scale.

Mooihoek Game Farming Initiative
The project aims to support the development of an emerging wildlife sector through value chain development and an incubation programme within a structured institutional framework built on strategic Public Private Partnerships in the Mogalakwena complex.

Value chain development and agri-business incubation can support community development and job creation by developing new enterprises, strengthening business relationships and by improving market structures and the overall business environment. It is a common belief that wildlife ranching and game farming can be a major contributor to the Green Economy in South Africa and a major contributor to food security, this being a catalyst and contributor to local economic transformation.

Mutale Agri-industry development
A Mutale Agri- Industry Development project is in pre-feasibility stage and will build on the mine initiatives already pursued through the closure of Tshikondeni mine.

Smart Farming Platform
Emerging farmers experience barriers to becoming commercially viable producers of quality fresh produce. Challenges include lack of technical support, insufficient logistical support, and the need for improved market

linkages. There is a pressing need to develop a smart farming platform that can serve as a holistic, replicable solution that seeks to overcome the commonly experienced challenges faced by these farmers.

Personal protective equipment
The manufacturing of personal protective equipment (PPE) was identified by the *dti* as one of the opportunities for local manufacturing.

Waste and Tyre Recycling
Waste tyre recycling was identified as an economic development opportunity. Tyre recycling is about considering the environment, the creation of economic activity through reprocessing tyres into constituent parts (rubber crumb, carbon black, steel and energy products) and value addition.

Northam Integrated Human Settlements
The realisation of the Northam integrated human settlements project includes the contribution of mining houses towards donation of land, bulk infrastructure and project management services.

Proposed structures between government and private sector to facilitate the implementation of the LDP are e.g. the Knowledge Forum

11.6 Integrated planning and co-ordination framework

Integrated planning is at the centre of providing strategic leadership by identifying and focusing on key developmental opportunities and then ensuring that key stakeholders in both the private and public sector play a role to realise these opportunities.

For the planning process to be effective, it must be inclusive of all affected stakeholders from the beginning of the process until implementation.

11.6.1 Alignment of provincial strategies and plans with the LDP

In support of integrated planning and implementation that is aligned with the LDP 2020-2025, the following provincial strategies and plans need to either be developed or reviewed. It is crucial that these strategies and plans give further effect to the LDP, and is aligned with the spatial targeting approach outlined in the Provincial Spatial Development Framework:

- Limpopo Infrastructure Master Plan
- Limpopo Provincial Skills Development Strategy
- Limpopo Health and Social Development Strategy
- Limpopo Industrial Development Plan
- Limpopo Crime Prevention and Management Strategy
- Limpopo Provincial Green Economy Strategy
- Limpopo Climate Change Strategy
- Limpopo Social Cohesion Strategy
- Limpopo Provincial Integrated Planning Strategy
- Limpopo Provincial Youth Development Strategy
- Limpopo Province ICT Strategy
- District Wide Integrated Development Plans, namely, District Development and Growth Plan
- Limpopo Fourth Industrial Revolution Strategy
- Limpopo Integrated Innovation Strategy
- Limpopo Multi-year Human Settlements Development Plan (under way
- Limpopo Provincial Economic Strategy

11.6.2 Strategic budgeting framework

The objectives of the Limpopo Development Plan can only become a reality if the pillars and projects outlined in the LDP have well-developed business plans and allocated budgets. Therefore, the departmental planning and budgeting process must be informed by the Limpopo Development Plan, including Strategic Plans and Annual Performance Plans (APP).

The Head of Departments (HoDs), Provincial Treasury, and the Planning, Monitoring and Evaluation Branch of the Office of the Premier, have an obligation and an utmost responsibility to assist departments in this regard, and to ensure that the requisite alignment is prioritised.

Funding at a provincial level will be allocated according to the fiscus. Budget allocations will be informed by LDP priorities.

11.6.3 IGR structures

Existing IGR structures, namely the Premier's Intergovernmental Forum and District IGR Fora must be effectively utilised to institutionalise inter-sphere implementation of the LDP. EXCO together with its Cluster Committees will perform the oversight role to ensure implementation of the LDP. The Office of the Premier, Provincial Treasury and CoGHSTA have a responsibility to support and coordinate departments and municipalities in aligning their Strategic Plans, APPs, IDPs and budgets with the LDP priorities.

The Integrated Planning and Coordination Framework identifies roles and responsibilities of the coordinating institutions as follows:

***Office of the Premier*:** is seized with the function to-

- oversee provincial policy, the LDP 2020-2025, and provincial sector planning and budgeting coherence towards district developmental impact in alignment with the national policies, NDP and MTSF priorities;
- Ensure provincial sector alignment in district IDP engagement sessions and endorsing departmental Strategic Plans, Annual Performance Plans together with IDPs and adopting One Plans; Convene P-IGF and PCC, receive reports from departments and municipalities and provide feedback and strategic guidance in respect of the DDM approach towards the implementation of LDP 2020-2025;
- Coordinate the monitoring & evaluation of the implementation of the LDP 2020-2025 and produce reports to oversight bodies;
- Coordinate Communication and Stakeholder Management Plan to ensure that Civil Society, Business and Organised labour contribute towards the implementation of the LDP 2020-2025 in alignment with the DDM approach.

Provincial Treasury: is the custodian of fiscal matters in terms of the Public and Municipal Finance Management legislations and –

- prescribes the manner in which spheres of government must prepare and adopt their respective budgets in accordance with the Medium Term Expenditure Frameworks (MTEFs) for provincial government and the Medium Term Revenue and Expenditure Framework (MTREF) for municipalities in alignment with spatial budgeting principle of DDM;
- Provincial Treasury annually issues guidelines to provincial and local government for the preparation of their respective budget submissions and MTEFs and to local government for the compilation of their MTREFs in support of the implementation of the LDP 2020-2025 targets, objectives and priorities in alignment with the DDM approach. The said budget guidelines should amplify the priorities of the LDP 2020-2025 together with principles of the DDM and One Plan and strengthen this over time through engaging and sensitising departments which includes the integration of planning, budgeting and implementation for all of Government;
- Provincial Treasury should also leverage its various resources in its support programmes to catalyse the implementation of the catalytic projects of LDP 2020-2025 together with monitoring and evaluation. The

DDM further relates to the MTSF and to that extent its principles and priorities ought to be covered in the budgeting process;
- In the case of infrastructure the budget guidelines may be also better placed in the various sector guidelines for infrastructure plans/business plans. The MTEF guidelines ought to now include at least the spatial budgeting principles outlined in the DDM Implementation Framework and the envisaged shift towards more rational and coherent budgeting in relation to the 5 district spaces on which departments will be further engaged on through the DDM implementation;
- Budgeting by departments will need to become explicit about what is committed to each space, the rationale for it and the outcomes to be achieved in these spaces in coordination with spending of other departments.

CoGHSTA:
- Supports municipalities with municipal planning including conditional grants management, financial management, local economic development, good governance, disaster management and public participation;
- Supports the Premier's Office with cascading LDP 2020-2025 priorities and aligning provincial sector strategies and plans towards district IDPs to enhance developmental impact;
- Support the implementation of LDP 2020-2025 by working towards the attainment of universal coverage of water and sanitation by institutionalisation of DDM in the province and utilise it to assist the province with its coordination, support and local government oversight responsibilities;
- Support the Premier's Office in terms of compiling the State of Service Delivery Report to account for disaggregated contribution of district municipalities towards the implementation of the LDP 2020-2025.

Public Works, Roads and Infrastructure:
- Supports the implementation of LDP 2020-2025 in line with Limpopo Integrated Infrastructure Master Plan (LIIMP) by ensuring that the planning of infrastructure by departments and municipalities is integrated, spatially referenced and accommodates new technologies to assist the achievement of sustainable socio-economic development in line with DDM principles;
- Support infrastructure planning that is aligned to the recommendations of Spatial Development Frameworks of District municipalities to protect the ecological infrastructure of the province in line with the Green Economy Strategy;
- Support the Premier's Office with coordination of the implementation of Catalytic Projects to stimulate economic growth with infrastructure capital formation working together with the private sector;
- Support the integrated planning and delivery of basic infrastructure such as water, sanitation, roads and ICT in public institution such as schools and hospitals to create a better life all particularly for poverty stricken communities in the townships and rural areas.

Partnership with the Industry and Civil Society:
- Structures and mechanisms to enhance participation and contribution, namely, Premier's Employment and Growth Advisory Council, Impact Catalyst and Provincial and District "Khawuleza" / IDP Representative Fora, will be utilised to strengthen collaboration with the private sector, civil society Institutions of Higher Learning and organised labour.
- The platform will create communication mechanisms for stakeholders such as business, civil society and organised labour to make inputs and contributions to achieve the long-term development vision of the province.

The following partners were consulted during the crafting of the LDP: Industry facilitated by the Impact Catalyst partners, Civil Society formations including Non-Governmental Organisations (NGOs) in structured consultations in Districts, and Institutions of Higher Learning.

Participatory Monitoring and Evaluation: will be coordinated by the Office of the Premier to ensure that periodical monitoring and evaluation of the LDP is conducted. It supports continuous Monitoring and Evaluation of the LDP and reporting on progress in this regard to processing Intergovernmental Structures.

The LDP will be monitored in line with following intervals: Annually, Mid-Term and End of the Term impact analysis. Departments and municipalities will be expected to submit LDP annual report detailing contribution to the implementation of the document. The impact evaluation encourages evidence-based planning, utilising the Theory of Change and DDM approach towards the implementation of the LDP.

11.7 LDP Strategic risk management plan

The strategies below indicate the mitigation measures to be implemented in order to ensure that the risks foreseen in successfully implementing the LDP are mitigated. Also indicated are the risk owners who are ultimately responsible for implementing the mitigation measure/s.

Table 49: LDP Strategic Risk Management Plan 2020-2025

Consequence	Risk	Mitigation	Risk owner
High unemployment rate Poverty	Volatile economic climate and declining local economy	Implementation of industrial strategy, coupled with District Development Model approach	Economic Cluster
Poor service delivery	Inefficiencies of the state to deliver on its mandate	Upskilling, training and empowerment of officials Consequence management	G&A Cluster
High unemployment rate	Low skills base	Implementation of HRD strategy	Social Cluster
Unhealthy and non-productive workforce	Burden of communicable diseases	Strengthening the capacity of the healthcare system to improve the health profile of the Province	Social Cluster
Non-conducive climate for investment Eroding social fabric within communities	High crime rate	Strengthening implementation of provincial crime prevention strategy	JCPS Cluster
Poor service delivery	Lack of integrated infrastructure planning and delivery	Strengthening the implementation of LIMMP and Strategic Infrastructure Hub	Infrastructure Cluster
Poor access to basic services	Water shortages	Implementation of water use efficient technologies	Economic Cluster Infrastructure Cluster
Poor access to basic services	Energy deficiencies	Implementation of Green Economy strategy	Economic Cluster Infrastructure Cluster

11.8 LDP Monitoring and evaluation framework

The LDP Monitoring and Evaluation Framework is aligned with the Provincial Integrated Planning Framework (PIPF). Efficient monitoring and evaluation of the implementation of the LDP will assist in increasing accountability of the State to deliver on the promised impact on the lives of people. Equally, it will serve as an early warning system against shortcomings and imperfections during the implementation phase, and provide data for both mid-term and end-of-term reviews of the LDP.

Monitoring and evaluation of implementation of the LDP 2020-2025 will follow a clustered approach, championed by the Planning, Monitoring & Evaluation Branch of the Office of the Premier.

Reporting will be conducted annually, mid-term, as well as at the end of the term. The frequency of monitoring will be annually. This will help in identifying challenges in the implementation of the Limpopo Development Plan Implementation Action Plan (LDP IAP), and in providing timeous corrective action for maximum impact.

The actions required to efficiently monitor and evaluate implementation and impact include:

1. Solicit progress reports from departments on their implementation of LDP targets
2. Solicit progress reports from municipalities on their implementation of LDP targets
3. Analyse and recommend corrective and intervention measures to improve the implementation of the LDP IAP
4. Interface between Planning Branch and Cluster Champions to share challenges of the LDP IAP
5. Co-operate and collaborate to improve problematic areas
6. Engage with private sector and civil society regarding LDP implementation progress and identifying workaround solutions for problem areas

12 CONCLUSION

The Limpopo Development Plan 2020-2025 is an integrated socio-economic planning and delivery document for the Limpopo Province. It encapsulates the realities and the aspirations of the provincial citizens. The plan aims to transform the productive potential of the Province, while addressing the inherent socio-economic challenges, with the aim of ensuring sustainable livelihoods.

Effective implementation of the LDP 2020-2025 will be guided by the Provincial Integrated Planning Framework. Departments, municipalities and SOEs will have to align their planning documents with the LDP. Periodic reporting to the Executive Council (EXCO) will be undertaken, in line with the applicable LDP implementation plan. Monitoring and evaluation of the LDP will serve before EXCO on a bi-annual basis. Monitoring and evaluation processes will result in an LDP mid-term review report, which will be provided to the EXCO for consideration. A close-out report will be produced to guide the ensuing planning cycle towards the end of the 6th Term of Administration. Furthermore, a communication plan will support the process to update the stakeholders with the progress of the implementation of the LDP 2020-2025.

ACKNOWLEDGEMENT



Tel: 015-287 6000 Fax: 015-287 4462
Website:www.limpopo.gov.za
Mowaneng Building, 40 Hans van Rensburg Street

PR196/2021
ISBN: 978-0-621-49557-7