

LIMPOPO PROVINCIAL SPATIAL DEVELOPMENT FRAMEWORK

The Office of the Premier

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Working together we can do more

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ABBREVIATIONS

Acronym Term

AAMP : Agro-Processing Masterplan

AfCFTA : African Continental Free Trade Area

AU : African Union

AIDA : Accelerated Industrial Development for Africa

AH : Agri Hub

AMV : African Mining Vision

BEPP : Built Environment Performance Plan

BIAT : Boosting Intra-African Trade

CAADP : Comprehensive Africa Agricultural Development Programme

CIR : Capital Investment Framework

CRDP : Consolidated Rural Development Programme

CRU : Community Residential Units

COGHSTA : Department of Cooperative Governance, Human Settlement and Traditional Affairs

CWP : Community Work Programme

DALRRD : Department of Agriculture, Land Reform and Rural Development

DCoG : Department of Cooperative Governance

DDM : District Development Model

DEA : Department of Environmental Affairs (historical name)
DEFF : Department of Environment, Forestry and Fisheries

DGP : District Growth Point

DLRRD : Department of Land Reform and Rural Development (historical name)

DM : District Municipality

DMRE : Department of Mineral Resources and Energy

DoT : Department of Transport

DPME : Department of Planning, Monitoring and Evaluation

DSAC : Department of Sport, Arts and Culture
DSI : Department of Science and Innovation

DWA : Department of Water Affairs (historical name)

EbA : Ecosystems based Adaptation

EDF11 : Economic Development Fund Programme 11

EPHP : Enhanced People's Housing Process

EU : European Union

FEPAs : Freshwater Ecosystem Priority Areas

FLISP : Finance-Linked Individual Subsidy Programme

FLNG : Floating Liquefied Natural Gas

FOA : Food and Agriculture Organisation of the United Nations

FPSU : Farmer Production Support Unit

GDP : Gross Domestic Product

GLTP : Greater Limpopo Transfrontier Park

GSDF : Gauteng Provincial Spatial Development Framework

HSDG : Human Settlements Development Grant

HSMP : Human Settlements Master Plan

ICT : Information and communication technology

ICP : International Cooperating Partners

IGF : Intergovernmental Forum

IGFRA : Intergovernmental Relations Framework Act
IDP : Municipal Integrated Development Plan
IDPF : Industrial Development Policy Framework

IDZ : Industrial Development Zone

IPILRA : Interim Protection of Informal Land Rights Act, 1996
IRDP : Integrated Residential Development Programme

IRP : Integrated Resource Plan

ISPH : Infrastructure Strategic Planning Hub

IT : Information Technology

ITMP : Integrated Transport Master Plan

IUDF : Integrated Urban Development Framework

KNP : Kruger National Park

LDP : Limpopo Development Plan

LEDET : Limpopo Department of Economic Development, Environment and Tourism

LIIMP : Limpopo Integrated Infrastructure Master Plan

LIMCOM : Limpopo Watercourse Commission

LM : Local Municipality

LIMP : Limpopo Industrialisation Master Plan

LNP : Limpopo National Park LRB : Limpopo River Basin

LSDF : Limpopo Spatial Development Framework

LSP : Local Service Point

LTGS : Limpopo Tourism Growth Strategy
LUMS : Land Use Management System
MEC : Member of Executive Council

MIIF : Municipal Infrastructure Investment Framework

MGP : Municipal Growth Point

MMSEZ : Musina-Makhado Special Economic Zone

MPSDF : Mpumalanga Provincial Spatial Development Framework

MSA : Municipal Systems Act

MTSF : Medium Term Strategic Framework

MYHSDP : Multi-Year Human Settlements Development Plan

NAMP : National Airspace Master Plan NBA : National Biodiversity Assessment

NBSAP : National Biodiversity Strategy and Action Plan

NDC : Nationally Determined Contribution

NDP : National Development Plan

NDPWI : National Department of Public Works and Infrastructure

NEPAD : New Partnership for Africa's Development

NGP : New Growth Path

NPAES : National Protected Area Expansion Strategy

NSAA : National Spatial Action Areas

NSDF : National Spatial Development Framework

OTP : Office of the Premier

PDPF : Provincial Development Planning Forum

PGM : Platinum group metals

PGDS : Provincial Growth and Development Strategy

PGP : Provincial Growth Point
PHP : People's Housing Programme

PHSHDAs : Priority Human Settlements and Housing Development Areas

PLTF : Provincial Land Transport Framework

RSA : Republic of South Africa

RISDP : Regional Indicative Strategic Development Plan SADC : Southern African Development Community

SANBI : South African National Biodiversity Institute
SANRAL : South African National Roads Agency SOC Ltd

SAPP : Southern Africa Power Pool
NBF : National Biodiversity Framework
SDF : Spatial Development Framework
SDG : Sustainable Development Goals
SDI : Spatial Development Initiative

SEZ : Special Economic Zone

SIPs : Strategic Infrastructure Projects

SPLUMA : Spatial Planning and Land Use Management Act

StatsSA : Statistics South Africa

STISA : Science, Technology and Innovation Strategy for Africa

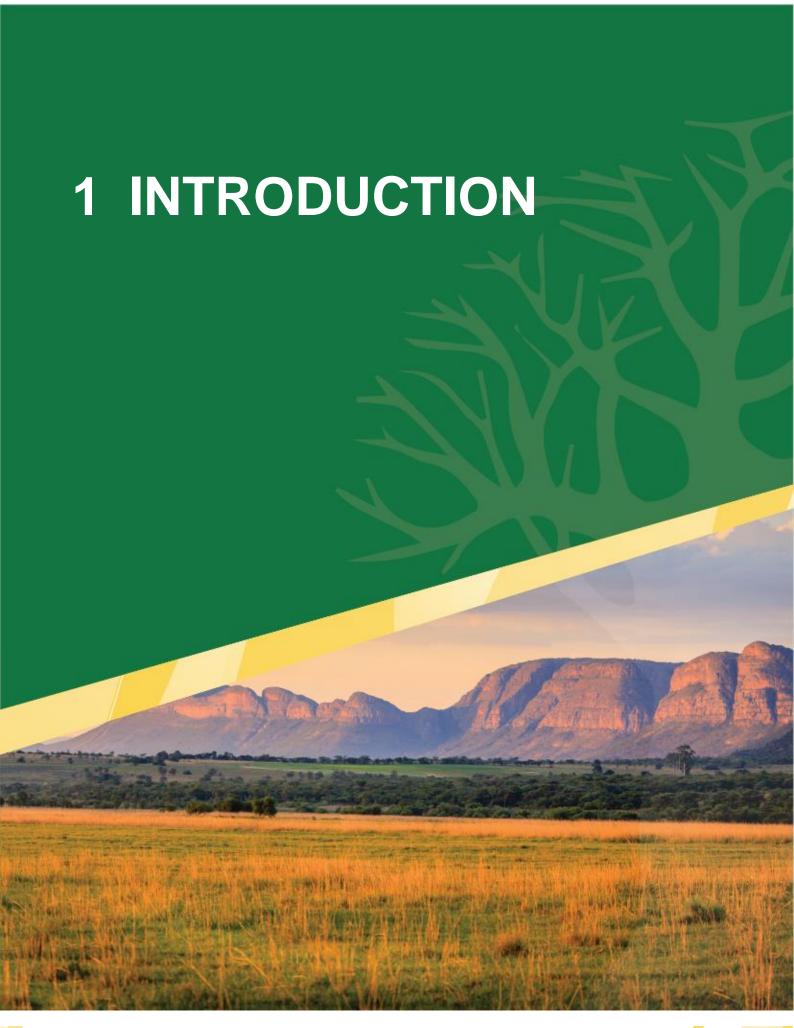
STOSAR : Support Towards Operationalization of the SADC Regional Agricultural Policy

STR : Small Town Regeneration
SWSA : Strategic Water Source Area
TFCA : Transfrontier Conservation Area
TRP : Title Restoration Programme

UISP : Upgrading of Informal Settlements Programme

UN : United Nations
WHS : World Heritage Site
WMA : Water Management Area

ZETDC : Zimbabwean Electricity Transmission and Distribution Company

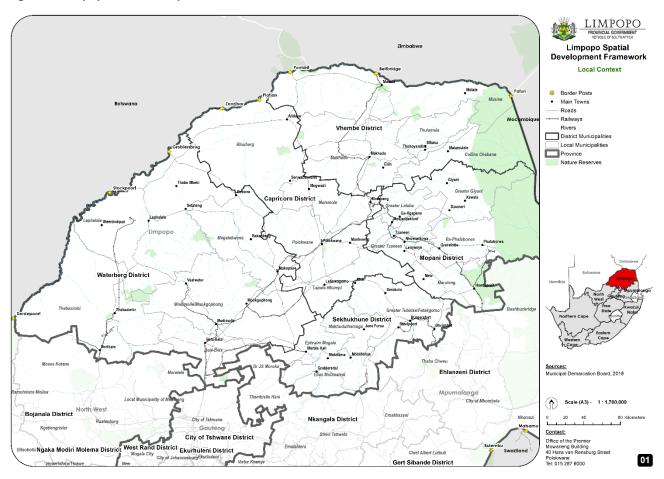


1.1 Limpopo Province

Limpopo Province, located in the north-east of South Africa, plays an important role in the national and Southern African regional economy. Limpopo shares national borders with Mpumalanga, Gauteng and North West Provinces and international borders with three countries (Botswana, Zimbabwe and Mozambique).

In 2018, Limpopo contributed 7,4% to the total GDP of South Africa. The mining sector in the most dominant industrial sector in the Province.

Figure 1: Limpopo Province Spatial Context



The Province consists of twenty-two Local Municipalities clustered into five Districts, i.e. Capricorn, Mopani, Sekhukhune, Vhembe and Waterberg. The municipalities have largely remained unchanged since the drafting of the 2016 Limpopo Spatial Development Framework, with two exceptions. After the August 2016 Local Government Elections, the Collins Chabane Local Municipality was established by the merger of portions of Thulamela and Makhado Local Municipalities. The Greater Tubatse and Fetakgomo Municipalities were merged to create the Fetakgomo Tubatse Municipality.

Table 1: Limpopo Municipalities

District	Local Municipality	District	Local Municipality
Capricorn	Blouberg	Sekhukhune	Elias Motsoaledi
	Lepelle-Nkumpi		Ephraim Mogale
	Molemole		FetakgomoTubatse
	Polokwane		Makhuduthamaga
Mopani	Ba-Phalaborwa	Waterberg	Bela-Bela
	Greater Giyani		Lephalale
	Greater Letaba		Modimolle-
			Mookgophong
	Greater Tzaneen		Mogalakwena
	Maruleng		Thabazimbi
Vhembe	Collins Chabane		
	Makhado		
	Musina		
	Thulamela		

1.2 Review of the LSDF, 2016

In 2021 the Limpopo Office of the Premier in collaboration with the Provincial Department of Cooperative Governance, Human Settlement and Traditional Affairs (COGHSTA) and the National Department of Agriculture, Rural Development and Land Reform initiated a review of the existing 2016 Limpopo Provincial Spatial Development Framework (LSDF).

Since the adoption of the LSDF in May 2016, there has been significant global, national and provincial spatial and economic developments, a range of new plans and policy documents have been prepared, Covid-19 has wreaked havoc and devastation, climate change and policy response to the challenges it poses have affected the development context, and land development have moved beyond what was envisaged in the 2016 LSDF. In addition, the LSDF is based on (now) dated information and this weakens the evidence base used to develop other plans, policy and projects in the Province.

More recent provincial and national imperatives expressed in policy documents or plans, such as the Limpopo Development Plan 2020-2025, the newly adopted National Spatial Development Framework, the District Development Model (DDM), the Consolidated Rural Development Programme (CRDP), the Medium-Term Strategic Framework 2019-2024, the National Development Plan, and the 2019 Human Settlements Framework for Spatial Transformation and Consolidation still need to find expression in the current framework.

1.3 Legislative Mandate

Section 15 of the Spatial Planning and Land Use Management Act, Act 16 of 2013 (SPLUMA) outlines the requirements for Provinces to develop and review provincial Spatial Development Frameworks (PSDFs) once every five years (RSA, 2013).

Section 15(1) requires that the PSDF must be consistent with the National Spatial Development Framework (NSDF). Section 15 (3) stipulates the role of the PSDF to be to coordinate, integrate and align:

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

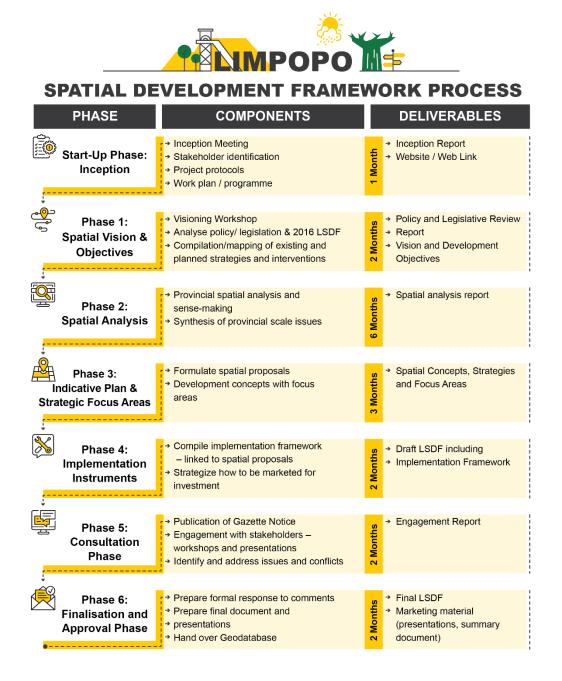
The content of a PSDF is specified in Section 16 of SPLUMA and determines that a PSDF must (RSA, 2013):

- provide a spatial representation of the land development policies, strategies and objectives of the Province, including the Province's growth and development strategy (the Limpopo Development Plan);
- indicate the desired and intended pattern of land use development in the Province;
- coordinate and integrate the spatial expression of the sectoral plans of provincial departments;
- provide a framework for coordinating municipal spatial development frameworks;
- coordinate municipal spatial development frameworks with the provincial spatial development framework and any regional spatial development frameworks; and
- incorporate any spatial aspects of relevant national development strategies and programmes.

1.4 LSDF Review Process

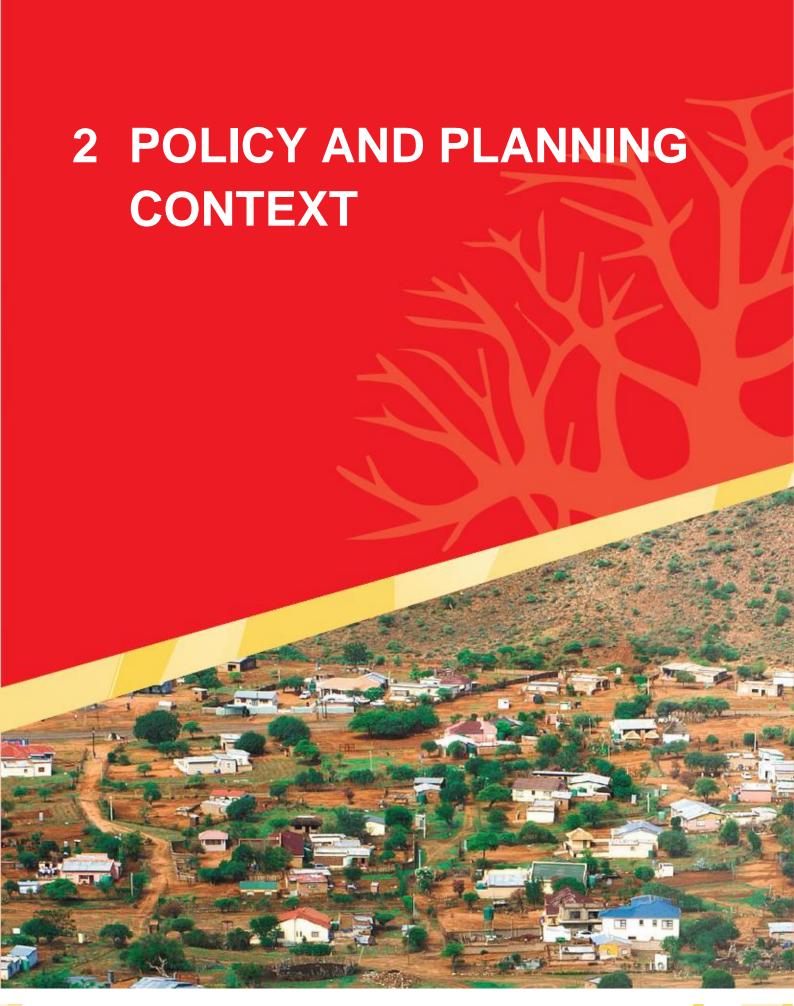
The review of the LSDF will be conducted according to the following phases:

Figure 2: LSDF Review Process



1.5 The Role of the LSDF

The LSDF plays both a directive and coordinating role in planning and implementation in the Province. It sets the strategic direction for sector planning and municipal planning in the Province. The LSDF provides a strategic link between national and municipal spatial planning, contextualising the NSDF for the realities, aspirations and challenges of Limpopo. To facilitating alignment of planning and implementation, it is a tool to guide the spatial targeting of investment and spending in the Province.



2.1 **Global Context**

2.1.1 **SDGs**

The 2030 Agenda for Sustainable Development was adopted in 2015 by leaders representing 193 countries, including South Africa, as a framework to guide global sustainable development. The seventeen Sustainable Development Goals (SDGs) with their 169 targets and 232 indicators form the backbone of the Agenda 2030 (United Nations, n.d.).

Figure 3: Sustainable Development Goals







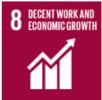
































South Africa conducted a Voluntary National Review of progress with the implementation of the SDGs, resulting in the South Africa Sustainable Development Goals Country Report 2019 (StatsSA, 2019). Based on the assessment, a range of priorities have been set to facilitate achievement of the SDGs (StatsSA, 2019):

Table 2: SDG Priorities South Africa

so	CIAL GOALS PRIORITIES:	ECONOMIC GOALS PRIORITIES:	
•	Improve social protection	 Promote effective governance, robust leadership at 	nd
	Improve access to basic services	participative citizenry	
-	Expand ECD Programmes	 Build an effective policy environment 	
-	Promote higher quality and industry-relevant education and	 Encourage innovation and entrepreneurship 	
	training	 Increase local and international investment 	
-	Address the unequal share of unpaid care and domestic work	 Implement high-quality economic regulation of network 	ork
	Promote innovative and sustainable health financing	industries	
	Improve frontline health care services	 Decouple economic growth from resource use and reduction 	on
	Prioritise social determinants of health	in waste generation	
	Correct gaps in legislation and policy which address		
	discrimination		

ENVIRONMENTAL GOALS PRIORITIES: GOVERNANCE, PEACE, JUSTICE AND SECURITY GOALS PRIORITIES: Focus on the developmental aspects of the White Paper on Continue to strengthen the national climate change response environment Safety and Security Revisit and Stabilise water sector institutional environment Increase access to justice for all Strengthen and broaden South Africa's participation in Improve water infrastructure asset management Stabilise water sector revenue environment international bodies Improve water sector information and data management Strengthen mechanisms to prevent illicit financial flows Actively manage marine development trade-offs Combat corruption and bribery Promote and protect the right of public access to information Overcome data challenges in the ocean economy Mainstream ecosystems and biodiversity into national planning Address programme and data gaps around energy affordability Fast-track off-grid electrification Accelerate informal settlement upgrading

Ensuring alignment across policy agendas, the Integrated Indicator Framework (StatsSA, n.d.) has been developed for South Africa that aligns SDGs 2030 and the Africa Agenda 2063 with the National Development Plan 2030.

2.1.2 Agenda 2063: The Africa We Want

Agenda 2063 is a strategic framework for the socio-economic transformation of the African continent. It is. It strives for inclusive and sustainable people-driven development and a unified continent with good governance, democracy, peace and security as well strong and shared cultural identity. It also strives to position Africa an influential global player. (African Union Commission, 2015)

Box 1: Agenda 2063

OUR ASPIRATIONS FOR THE AFRICA WE WANT (African Union Commission, 2015)

- 1. A prosperous Africa based on inclusive growth and sustainable development
- An integrated continent, politically united and based on the ideals of Pan-Africanism and the vision of Africa's Renaissance
- 3. An Africa of good governance, democracy, respect for human rights, justice and the rule of law
- 4. A peaceful and secure Africa
- 5. An Africa with a strong cultural identity, common heritage, shared values and ethics
- 6. An Africa whose development is people-driven, relying on the potential of African people, especially its women and youth, and caring for children
- 7. Africa as a strong, united and influential global player and partner

Agenda 2063 sets the following action actions (African Union Commission, 2015):

- a. Eradicate poverty in the coming decades;
- b. Provide opportunities for all Africans to have decent and affordable housing in clean, secure and well planned environments;
- c. Catalyse education and skills revolution and actively promote science, technology, research and innovation, to build knowledge, human capital, capabilities and skills to drive innovations and for the African century;
- d. Transform, grow and industrialise our economies through beneficiation and value addition of natural resources;
- e. Consolidate the modernisation of African agriculture and agro-businesses;
- f. Act with a sense of urgency on climate change and the environment;
- g. Connect Africa through world-class Infrastructure;
- h. Fast-track the establishment of the Continental Free Trade Area;
- Support young people as drivers of Africa's renaissance;
- j. Silence the guns by 2020, through enhanced dialogue-centred conflict prevention and resolution;
- k. Achieve gender parity in public and private institutions;
- Introduce an African Passport by 2018;
- m. Consolidate a democratic and people-centered Africa;

- n. Enhance Africa's united voice in global negotiations;
- o. Strengthen domestic resource mobilisation; and
- p. Set up an implementation, monitoring, evaluation system, underpinned by accountability and transparency, to ensure the attainment of the Agenda 2063 Aspirations.

2.1.3 Climate Change Commitments

South Africa is a signatory to the Paris Agreement on Climate Change.

South Africa has updated and enhanced its nationally determined contribution (NDC) under the Paris Agreement. In terms of this commitment, "the long-term decarbonization of the South African economy will in the 2020s focus primarily on the electricity sector; in the 2030s, a deeper transition will take place in the electricity sector, coupled with a transition in the transport sector towards low emission vehicles, while the 2040s and beyond will be characterized by the decarbonization of the hard-to-mitigate sectors." (DMRE, 2019)

The carbon emission targets have been captured in the Climate Change Bill (9 of 2022) (RSA, 2022):

Box 2: Climate Change Bill: Interim National Greenhouse Gas Emissions Trajectory

The Republic's greenhouse gas emissions will—

- (a) peak in the period 2020 to 2025 in a range with a lower limit of 398 Megatonnes (109kg) (Mt) CO2-eq and upper limits of 583 Mt CO2-eq and 614 Mt CO2-eq for 2020 and 2025, respectively;
- (b) plateau for up to 10 years after the peak within the range with a lower limit of 398 Mt CO2-eq and an upper limit of 614 Mt CO2-eq.: and
- (c) from 2036 onwards, decline in absolute terms to a range with a lower limit of 212 Mt CO2-eq and an upper limit of 428 Mt CO2-eq by 2050.

2.1.4 Synthesis: Implications of Global Context and Commitments

The implications of global commitments for the LSDF include:

- Enabling sustainable development through spatial form, guided by the translation of global policy and outcomes such as the SDGs to provincial spatial outcomes;
- Considering the impact of international commitments to the decarbonisation of the South African economy on the Limpopo space economy; and
- The role of Limpopo and its regional connectivity and resource asset base as a contributor to African development.

2.2 Sub-Continental Strategies and Plans

The economic and political strength of South Africa in Southern Africa is undeniable. South Africa is one of the strongest economies in Southern Africa and in the continent of Africa. Regional and global interests lie at the heart of South African's foreign policy. The country is also the gateway to much of the foreign direct investment to the region. South Africa has significant interests in the region and in regional integration. SADC has an export market for South Africa's internationally uncompetitive products (Amos, 2010).

The region has also been particularly hard hit by recurrent climate-induced hazards that include droughts, floods, and the spread of deadly communicable disease. The threat of these hazards is exacerbated by poorly planned land use, misuse of essential natural resources including inefficient water usage and contamination, prolific waste and energy mismanagement, and persistent wildlife crime and trafficking. The region's vast stock of natural resources represents an important revenue generation stream. Protection of this stock is vital to ensuring that the region's people are healthy and safe from disease, and for the region's most important export industries: agriculture and mining. These resources are also essential to the success of the domestic tourism and services industries, which together employ millions of people across the region (Amos, 2010).

Figure 4: SADC Member Countries Map

(SADC (1), 2020)



The SADC is arguably the most important regional organization in Southern Africa and is recognized by the African Union (AU) as a regional economic community. The main objectives of the SADC are to achieve development, peace and security, and economic growth, to alleviate poverty, enhance the standard and quality of life of the peoples of Southern Africa, and support the socially disadvantaged through regional integration built on democratic principles and equitable and sustainable development. (US AID, 2020)

2.2.1 The Role of the SADC

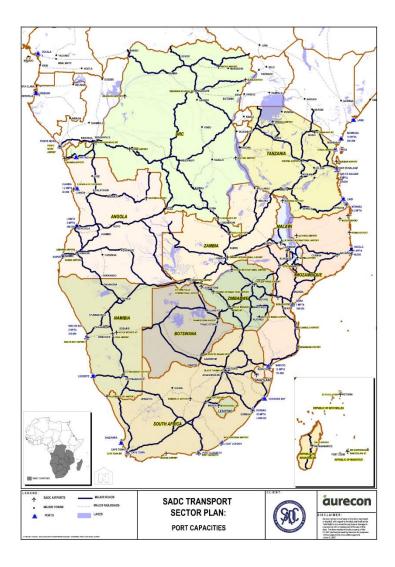
The purpose of the SADC is to create a regional community, which would provide peace and security, cooperation in fields of shared interests, and ultimately an integrated economy. It stems from the realization that development and growth cannot be achieved in isolation - there is a dependence among countries as they not only share resources, but they might also have historic and cultural connections. It aims to apply the concept of development regionalism to improve the well-being of people in the region and uses a development focused integration agenda. Despite its policy and institutional frameworks, the progress towards development integration has been slow in part due to unwillingness to implement regional mechanisms. The institutional arrangements include the SADC Summit, the Summit Troika of the Organ, the SADC Administrative Tribunal, the SADC Council of Ministers, Sectoral and Cluster Ministerial Committees, the Standing Committee of Senior Officials, the SADC Secretariat, SADC National Committees, and the SADC Parliamentary Forum. The SADC Treaty (Article 14) defines the SADC Secretariat as the principal executive institution of the SADC, whose core functions are to provide leadership in fulfilling the core functions of 'strategic planning and management of programmes of SADC, monitoring and evaluation of implementation of regional policies and programmes', among others. The framework within which these functions are exercised is underpinned by policy and programme provisions incorporated in the SADC Treaty and the Regional Indicative Strategic Development Plan (RISDP) (SADC (1), 2020).

Institutions such as the Regional Secretariat, the SADC Electoral Advisory Council (SEAC) and SADC National Committees (SNCs) have not always been operating optimally. South Africa also leverages SADC as its primary foreign policy vehicle for achieving regional development and integration within Southern Africa (Nganje, 2014).

The 2022 NSDF highlighted the need to optimise "the enormous economic opportunities that SADC offers for 1) trade, 2) collaborative research and knowledge development, packaging and distribution, 3) water-sharing, and 4) energy generation" (DALRRD, 2022).

Figure 5: Inter-Regional Connectivity: SADC

(SADC (2), 2012)



The Limpopo Province is therefore ideally located as a portal to/from the SADC, however its potential to benefit from the SADC regionalization is tied to the policies and actions of the South African Government.

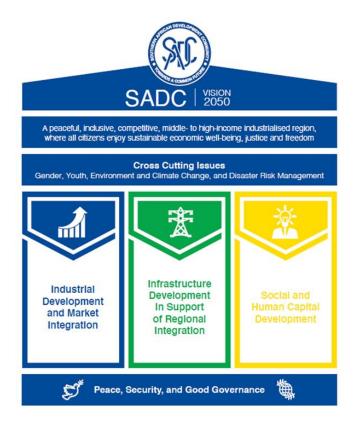
2.2.2 SADC Vision 2050

The SADC Regional Indicative Strategic Development Plan (RISDP 2020-2030) and SADC Vision 2050 are two strategic plans which seek to further deepen Southern Africa regional integration and foster development. (SADC (3), 2020). The two strategic plans were approved by the 40th Ordinary SADC Summit in Maputo, Mozambique in 2020. They are both based on a firm foundation of Peace, Security and Democratic Governance, and premised on three interrelated pillars, namely: a) Industrial Development and Market Integration; b) Infrastructure Development in support of Regional Integration; and c) Social and Human Capital Development."

The SADC Vision 2050 does not provide any spatial objectives – rather it represents a high-level vision for the SADC region. It does not make any locational or country specific mentions. The vision is expressed in three pillars as illustrated in the following figure (SADC (3), 2020).

Figure 6: SADC 2050 Vision

(SADC (3), 2020)



Pillar 1: Industrial development and Market Integration

By 2050, SADC is to be an industrialised and integrated region, where citizens equitably benefit from the opportunities of a stable regional market that is commensurate with the AU's Accelerated Industrial Development for Africa (AIDA), Science, Technology, and Innovation Strategy for Africa (STISA), African Mining Vision (AMV), Boosting Intra-African Trade (BIAT), and Comprehensive Africa Agriculture Development Programme (CAADP); and is well integrated into the broader African Continental Free Trade Area (AfCFTA). To achieve this requires the following;

- An industrialised regional economy that is based on a competitive and facilitative environment, which
 includes infrastructure and skills, and sustainably exploits its natural resources by leveraging science,
 technology, and innovation;
- A transformed agricultural sector that practices sustainable management of the environment and its natural resources;
- Interconnected, integrated, competitive Blue, Green, and Circular Economies that are sustainably developed for the benefit of all SADC citizens;
- Deepened regional market integration, which is connected to the continental and global markets;
- Deepened financial market integration, monetary cooperation, and investment; and
- Enhanced macroeconomic stability and convergence.



Pillar 2: Infrastructure development in support of regional integration

By 2050, SADC is to have efficient and effective, technologically-driven cross-border infrastructure services and networks to support and facilitate deeper regional integration. We, therefore, undertake to realise:

- Quality, interconnected, integrated, and seamless infrastructure and networks;
- Improved capacity for conceptualisation, design, construction, maintenance, and operation of regional infrastructure and services; and
- Increased access to affordable infrastructure and services.



Pillar 3: Social and Human Capital Development

By 2050, SADC is to have a high quality of life, in which its citizens are well educated and enjoy long, healthy, and productive lives that reinforce the link between economic growth and sustainable human development, in order to end poverty in all its forms. This strong and inclusive human capital base will enable SADC citizens to play a pivotal role in the region's socio-economic development, through enhanced productivity. We, therefore, undertake to realise:

- Strengthened and harmonised regional health systems for the provision of standardised and accessible health services to all citizens and addressing threats caused by health pandemics;
- Improved food and nutrition security for the socio-economic well-being of people in the region;
- Increased access to quality and relevant education and skills development, including in science and technology, for SADC citizens;
- Increased job creation with decent work opportunities for full and productive employment in the region;
 and
- Enhanced living conditions of the people through the promotion of sustainable cities in the region.



<u>Cross cutting issues - Gender, Youth, Environment and Climate Change, and Disaster Risk Management.</u>

- Enhanced gender equality as well as women's empowerment and development, and elimination of gender-based violence;
- A robust and responsive regional statistical system to underpin regional integration processes, including measurement of progress and impact;
- Improved youth empowerment and participation of young people and people with disabilities in all aspects of social and economic development, and enhanced welfare of senior citizens;
- Strengthened climate change, adaptation, and mitigation;
- Improved disaster risk management in support of regional resilience;
- Sustainable utilisation and conservation of natural resources and effective management of the environment; and
- Increased access to quality HIV and AIDS services for the realisation of an AIDS-free generation in the region.

Given that the Limpopo Province borders three neighbouring countries, issues related to the three pillars that would be relevant across national boundaries should be tracked. Most significantly are the projects that might emerge under the various pillars. One of the most critical aspects is a compliance mechanism that will also augment existing mechanisms that seek to monitor and evaluate initiatives in the region. A strong coordinating body will be critical for the successful implementation of initiatives across regions. Limpopo might need to ensure that its interests etc. are represented in such a body through sufficient representation by the relevant South African SADC Committee. Some of the issues that relates more pertinently to the Limpopo Province includes the following:

- Industrialised regional economy given the Provinces investment in large industrial complexes through the establishment of several Special Economic Zones (SEZs) and the revitalisation of industrial parks there is a strong intent to develop industries. The market of such industries would also include the SADC economic region.
- Climate change recent and developing stresses brought about by climate change such as droughts, extreme climate events and increasing future temperatures all result in increased risk to those people dependant on agriculture for livelihoods. Shared resources such as the Limpopo River and its associated catchments and basins requires shared policies and measures.
- Infrastructure for access The flows of people and goods across SADC countries is essential for market integration, trade, economic development and regional stability. Interdependencies require efficient and operational road-, rail- and air linkages. Limpopo is a gateway providing critical access into and from other SADC countries to the rest of SA as well as its ports.

2.2.3 Regional Indicative Strategic Development Plan (RISDP) 2020-2030

The Regional Indicative Strategic Development Plan (RISDP) 2020-2030 operationalises the SADC Vision 2050 which is a long-term ambition by SADC that sets out the aspirations of the Region until 2050. RISDP 2020-2030 is a successor to the previous RISDP which was a comprehensive 15-year strategic roadmap which provided the strategic direction for achieving SADC's long-term social and economic goals. The previous RISDP provided the SADC Secretariat and other SADC institutions with clear guidelines on SADC's approved social and economic priorities and policies and therefore, enhanced their effectiveness in discharging their facilitating and coordinating role. It was approved by SADC Summit in 2003 and its effective implementation began in 2005.

RISDP 2020-2030 is a 10-year strategic plan and a culmination of a long and intensive process that began in June 2012, following a decision by Member States to develop SADC Vision 2050. Both RISDP 2020-2050 and Vision 2050 provide a guiding framework for the implementation of SADC's regional integration and developmental agenda and programmes for the next 10 years. It is the product of consultative processes involving key stakeholders from Member States, including the private sector, civil society, research institutions, and think-tanks, as well as international cooperating partners (ICPs). The objectives of the RISDP are:

- Review the main cooperation and integration areas;
- Define the priority integration areas for the next fifteen years;
- Set up a logical implementation program of the main activities necessary for the achievement of the region's broader goals;
- Ensure effective sectoral linkages and enhance synergy amongst sectors; and
- Provide member states, SADC Secretariat and other Institutions, regional and international stakeholders with a coherent and comprehensive long term implementation agenda

RISDP 2020–2030 and Vision 2050 cover six strategic priority areas namely:

- The Foundation: Peace, Security, and Good Governance;
- Pillar I: Industrial Development and Market Integration;
- Pillar II: Infrastructure Development in Support of Regional Integration;
- Pillar III: Social and Human Capital Development; and
- Cross-cutting issues including Gender, Youth, Environment and Climate Change, and Disaster Risk Management."

In each of these priority areas, the RISDP 2020-2050 and Vision 2050 provide strategic guidance in the form of actions, interventions, targets, and timelines that, if implemented and met, will further deepen integration in SADC.

The interventions listed under each pillar should be reviewed to determine areas most significant to the Limpopo Province (SADC (4), 2020).

2.2.4 SADC Initiatives

The main objectives of SADC are to achieve economic development, peace, security, growth, alleviate poverty, enhance the standard and quality of life of the peoples of Southern Africa, and support the socially disadvantaged. These objectives are to be achieved through increased regional integration built on democratic principles and equitable and sustainable development. The following will reflect some of the initiatives that could be relevant to the Limpopo Province and its planning.

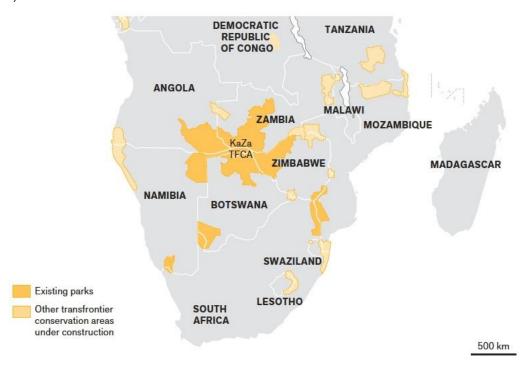
2.2.4.1 Transfrontier Conservation Areas and Parks

Essentially, a **Transfrontier Park** is an area comprising two areas, which border each other across international boundaries and whose primary focus is wildlife conservation. Authorities responsible for the respective areas formally agree to manage the areas as one integrated unit according to a streamlined management plan. The authorities also undertake to remove all human barriers within the Transfrontier Park so that animals can roam freely. **A Transfrontier Conservation Area** (TFCA) on the other hand usually refers to a cross-border region whose different component areas have different forms of conservation status such as national parks, private game reserves, communal natural resource management areas and even hunting concession areas. Although fences, major highways, railway lines or other forms of barriers may separate the various parts, these areas nevertheless border each other and are jointly managed for long-term sustainable use of natural resources. As opposed to Transfrontier Parks, free movement of animals between the different parts that constitute a Transfrontier Conservation Area may not always be possible.

The broader aims for the establishment, development and management of trans-frontier conservation areas are trans-boundary ecosystem management, the integration of conservation with development, and the promoting regional cooperation and socio-economic development in the Southern African sub-continent. Furthermore, the TFCA programme forms an integral part of New Partnership for Africa's Development (NEPAD), which also aims to bring Africans together. SADC has committed to developing TFCAs within the framework of SADC's mission to coordinate the harmonisation of policies and strategies to accelerate regional integration and sustainable development (GIZ and KfW, 2022).

Figure 7: SADC Transfrontier Conservations Areas

(Belaidi, 2016)



Currently there are 18 Trans-frontier Conservation Areas in SADC (figure 4) and two are predominantly located in the Limpopo Province namely the Great Limpopo Trans-frontier Park and Conservation Area, and the Greater Mapungupwe Transfrontier Conservation area. The Limpopo Trans-frontier Park links the Limpopo National Park in Mozambique, Kruger National Park in South Africa, and Gonarezhou National Park, Manjinji Pan Sanctuary and Malipati Safari Area in Zimbabwe, as well as two community owned areas, one which forms part of the Kruger National Park, namely the Makuleke Area and the Sengwe communal land in Zimbabwe. The Greater Mapungupwe Trans-frontier Conservation Area is an emerging TFCA and encompasses private land in Botswana, South Africa and Zimbabwe (SADC (5), 2018). Both these parks are highly significant assets for tourism and conservation in the Limpopo Province.

An EU project (KRW GLTP (I-V) has been supporting the development of the **Limpopo TFCA** over the period 2002-2022. The projects support the Limpopo Park (LNP) in Mozambique as a component of the Great Limpopo Trans-frontier Park (GLTP), which also includes the Kruger National Park (SA) and the Gonarezhou National Park in Zimbabwe. The objective of the project is to protect and sustainably use ecologically valuable resources and to promote the livelihoods of current and future generations of the local population. The project works with the park administration, the rural population within the parks, the surrounding zone and the private sector. It involves financial support for the voluntary resettlement of the villages located in the core zone of the LNP as well as support for the park and project management through complementary investment in infrastructure, science, training, and awareness –raising. The project totalled an investment of 58 Million Euro plus 1 Million Euro for COVID-19 funding. During the 2021 IUCN world Conservation congress the SADC TFCA financial facility was established. The SADC TFCA Financing Facility is a grant-making mechanism established to support development of TFCAs in the SADC region.

There are several benefits to Transfrontier Conservation Areas; To list only a few, it ensures the sustainability of ecosystems and the continued existence of migratory wildlife species which are otherwise becoming increasingly isolated due to habitat loss and fragmentation, it provides direct government and community revenues generated from tourism operations, and it has potential to develop the tourism product of rural and marginalised areas which would not have sufficient leverage if developed in isolation (generates employment) (SADC TFCA portal, 2022). TFCAs provide a means of creating an enabling environment for local participation in decision-making processes, increasing opportunities for investment in income generating activities for communities to improve local economies resulting in poverty reduction. (International Union for Conservation of Nature, 2021).

2.2.4.2 Spatial Development Initiatives (SDIs)

"A final output of the sub-continental agreement is namely the Spatial Development Initiative (SDI) programme, which is a short-term investment strategy that aims to unlock inherent economic potential in specific spatial locations in southern Africa. The programme uses public resources to promote private sector investment in regions with a high potential for economic growth. There are ten SDIs in southern Africa of which four are located in the Limpopo Province (see Figure 8)." (Limpopo OTP, 2016)

BLOUBERG

MAKHAD

COLLINS CHABANE

COLLINS CHABANE

GREATER
GIVANI

GREATER
GIVANI

LEPHALALE

FAST-WEST SDI

POLOKWANE

PHALABORWA SDI

MARULENG

MAKHUDUTHAN

CAPRICORN

MOPANI

SEKHUKHUNE

Figure 8: Spatial Development Initiatives (SDIs) in Limpopo

The key principle of the SDI programme is that it aims to create an attractive environment for private sector investment by moving away from the protected and isolated approach towards economic development.

VHEMBE WATERBERG

The revived Trans Limpopo SDI is meant to create an economic corridor from the Limpopo Province northwards extending to Victoria Falls in Zimbabwe (the Matabeleland Province). This SDI also links up the Musina-Makhado Special Economic Zone. One of the critical issues explored as part of both initiatives is gaining access to water resources from Zimbabwe to support the SEZ. On the Zimbabwean side the Zimbabwe Investment Development Authority is investigating the creation of a special purpose vehicle to promote investment in Beitbridge. Investment opportunities includes citrus production, infrastructure development, beef and related products, manufacturing, livestock production, retail, warehousing, packaging, accommodation, transport and logistics. (Anon, Zim-SA resume Trans-Limpopo initiative talks, 2022)

2.2.4.3 Southern Africa Power Pool (SAPP)

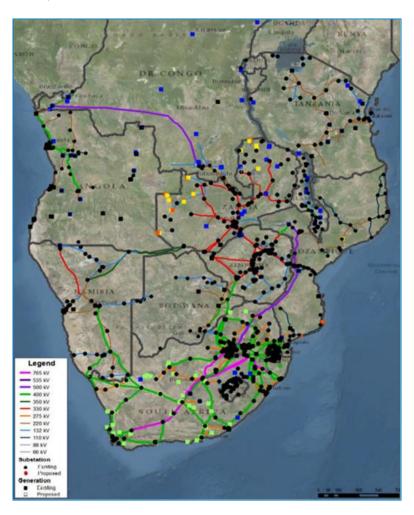
The SAPP was created in August 1995 at the SADC summit held in Kempton Park, South Africa, when member governments of SADC (excluding Mauritius) signed an Inter-Governmental Memorandum of Understanding for the formation of an electricity power pool in the region under the name of the Southern African Power Pool. The ministers responsible for energy in the SADC region signed the Revised Inter-Governmental Memorandum of Understanding on 23 February 2006. The SAPP has twelve member countries represented by their respective electric power utilities organised through SADC. The SAPP coordinate the planning and operation of the electric power system among member utilities. The SAPP provide a forum for regional solutions to electric energy problems. The SAPP vision is to be a fully integrated, competitive energy market and a provider of sustainable energy solutions for the SADC region and beyond.

SAPP tracks the SADC energy demand and supply situation in the region (with information contributed by its members). Although the coal fired technology is still dominating on the new generation capacity, the SAPP is committed to following the Global thinking of reducing our carbon footprint by investing more in renewable energy (clean energy). A study to look at the impact of variable renewable energy on the SAPP grid has been completed in 2021, this will promote the development of more renewable energy in the region. The SAPP continued to monitor and track the status of generation and transmission projects across all 12 member states. A total of 10,040 MW is planned to be commissioned in the period from 2021 to 2023 whilst a total of 5,059 MW is planned to be decommissioned during the same period. SAPP also completed the development of

transmission grid maps to help stakeholders the current state of the interconnected systems, projects under consideration and future proposed projects (see figure below). (SAPP, 2022)

Figure 9: Transmission Grids in SADC Region

(SAPP, 2022) (SAPP, 2021)



2.2.5 SADC Industrialisation Strategy, 2015-2063

The SADC Industrialization Strategy and Roadmap is formulated in the context of existing national and regional policies and specifically the August 2014 Summit at Victoria Falls, Zimbabwe, which was held under the theme: "SADC Strategy for Economic Transformation: Leveraging the Region's Diverse Resources for Sustainable Economic and Social Development through Beneficiation and Value Addition". Summit directed that industrialization takes centre stage in SADC's regional integration Agenda. To this end, Summit mandated the Ministerial Task Force on Regional Economic Integration to develop a strategy and roadmap for industrialization of the Region. The Strategy is premised on the conviction that regional integration will promote industrialization. It recognizes that industrial policy and implementation will be largely undertaken at the national level and that its success depends on forging a compact for industry consisting of the government, the private sector, civil society, labour and the development partners. The SADC Industrialization Strategy and Roadmap seeks to engender a major economic and technological transformation at the national and regional levels within the context of deeper regional integration. It also aims at accelerating the growth momentum and enhancing the comparative and competitive advantage of the economies of the region. The Strategy is designed as a modernization scheme, and is predicated on maximum exploitation of comparative advantage and creating enduring conditions for competitive advantage at enterprise level.

The Regional Strategy is driven by national development strategies, visions and plans and primarily by the SADC Treaty, the RISDP, SADC protocols and specifically by the Industrial Development Policy Framework (IDPF). It is also informed by African Union's Accelerated Industrial Development of Africa and Agenda 2063.

The primary orientation of the Strategy is the necessity for the structural transformation of the SADC region by way of industrialization, modernization, upgrading and closer regional integration. Industrialization should be seen as a long-term process of structural transformation and enhanced competitiveness of the entire SADC region. The SADC region is in catch-up mode and needs to run faster than other emerging economies to converge with upper middle-income and high-income countries.

The Strategy is anchored on three pillars: (i) Industrialization as champion of economic and technological transformation. (ii) Competitiveness (at the firm/industry, country and regional level) as an active process to move from comparative advantage to competitive advantage. (iii) Regional integration and geography as the context for industrial development and economic prosperity.

2.2.5.1 The Industrialisation Strategy Roadmap

The roadmap outlines the salient areas of interventions, content, objectives, outcomes and responsibilities of main actors (Member States, government, private sector, Development Partners) as well as the sources of funding within the context of a generational industrial development strategy straddling the period 2015 to 2063 for SADC countries to be fully developed and to ultimately converge with the African Union Agenda 2063. The Strategy, developed as a continuum, is built around three cascading growth scenarios that would enable SADC countries to progress from factor-driven to investment-driven economies and thereafter to the high-development innovation stage associated with present developed countries.

In the Roadmap, interventions covering the period 2015-2063 are outlined within medium- and long-term perspectives, organised along the lines of the strategic thrust of the three core strategic pillars – namely: 1. Industrialization 2. Competitiveness 3. Regional Integration. The roadmap is to be populated by Member States and the SADC Secretariat in consultation with the private sector and the Development Partners (SADC (6), 2015).

The Strategy lists several **strategic interventions** which includes the following:

- Macro-economic framework SADC countries should target macroeconomic stability within a
 developmental state with a specific focus on inclusive growth, economic diversification, enhanced
 competitiveness and deeper regional integration.
- Revitalizing Regional Integration The Strategy recognizes that frontloading of industrialization will be
 promoted through the adoption of a strategy of developmental regionalism. This implies sequencing
 trade liberalization alongside conscious policy actions to build productive capacity in Member States,
 predominantly in the private sector.
- Removing Binding Constraints Accelerated industrialization is being hampered by three binding constraints - inadequate and poor-quality infrastructure, a severe deficit of the skills needed for industrial development and insufficient finance.
- Industrial Development Frontloading industrialization should be a function of diversification enterprises breaking into new industries, utilizing new processes and producing new and better-quality products for domestic and foreign markets.
- Potential Growth Paths Three mutually compatible growth paths are prioritized agro-processing, minerals beneficiation and downstream processing and enhanced participation in value chains at the national, regional and global level.
- A Compact for Industrialization The Role of the State and Engaging the Private Sector Government's central role is the creation of an enabling policy and regulatory environment for accelerated industrialization with a particular focus on tackling the binding constraints of infrastructure, skills development, and financing.
- Mainstreaming Gender and Youth Issues Industrialization should hold more promise for women and youth.

- Strengthening Small and Medium Scale Enterprises An integrated strategy for SME development focusing on increasing the small business survival rate via training programmes, access to information, financing, favourable fiscal policy environment and assistance in accessing modern technology is essential.
- Enhancing Competitiveness In the hyper-competitive global economy of the 21st century, improved competitiveness at both national and enterprise levels is central to revitalising industrialization and rebuilding market share lost to foreign competitors, especially from Asia. Public-Private co-operation and dialogue will be an essential input into elevating competitiveness to the top of the economic policy agenda.
- Ensuring Environmental Sustainability The SADC region should promote inclusive and sustainable industrialization by considering initiatives on the green and blue economy.
- Growth Scenarios and Timelines The main thrust of the scenarios is to graduate SADC countries from factor driven to investment driven and ultimately innovation high development stage in line with competitiveness stages. Accordingly, three cascading growth scenarios are in order. 1. Phase I: Years 2015-2020. 2. Phase II: Years 2021-2050. 3. Phase III: Years 2051-2063
- Mobilizing Financial Resources for the Industrialization Strategy In a catch-up regional economy, Member States must increase both savings and investment as shares of GDP to the levels achieved by Asian comparators. There will be no SADC industrial revolution without 24 substantially higher investment in infrastructure, upgrading and diversifying the capital stock and the provision of the hightechnology skills necessary in modern industry.

2.2.6 SADC Regional Agricultural Policy

The purpose of the SADC Regional Agricultural Policy is to define common agreed objectives and measures to guide, promote and support actions at regional and national levels in the agricultural sector of the SADC Member States in contribution to regional integration and the attainment of the SADC Common Agenda. The goal of the policy is to contribute towards the attainment of the SADC Common Agenda which promotes sustainable and equitable economic growth and socio-economic development. The overall objective of the Policy is to contribute to sustainable agricultural growth and socio-economic development. (SADC FANR, 2013)

The Policy specific objectives are to:

- Enhance sustainable agricultural production, productivity and competitiveness;
- Improve regional and international trade and access to markets of agricultural products;
- Improve private and public sector engagement and investment in the agricultural value-chains; and
- Reduce social and economic vulnerability of the region's population in the context of food and nutrition security and the changing economic and climatic environment.

2.2.6.1 Support Towards Operationalization of the SADC Regional Agricultural Policy (STOSAR)

The three year-long EUR 9 million project "Support towards operationalization of the SADC Regional Agricultural Policy" (STOSAR) is financed by the European Union (EU) as part of its 11th Economic Development Fund Programme (EDF 11). The programme has three components being implemented by the SADC Secretariat and the Food and Agriculture Organization of the United Nations (FAO), which are: i) enhancing information on agricultural production, sustainability and competitiveness for evidence-based decision-making; ii) improving access to markets through implementation of plant and animal pest and disease control strategies at regional level; and iii) facilitating implementation of some components of Regional Food and Nutrition Security Strategy (FNSS). The latter component is being implemented directly by the SADC Secretariat. (SADC (7), 2022)

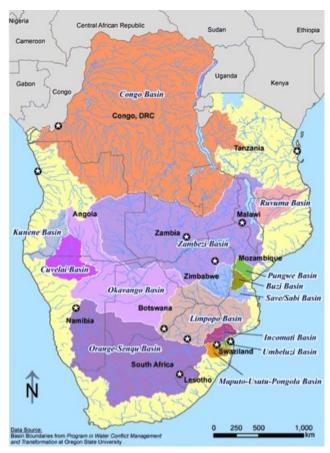
Through the project, FAO is supporting the SADC Secretariat to develop the long-term capacities of Member States by strengthening the management of agricultural information systems, and control of five emerging transboundary plant pests and diseases; Tuta absoluta, Fall armyworm, Fruit fly, Maize lethal Necrotic disease, and Banana Fusarium wilt, as well as, three high-impact transboundary animal diseases namely; foot and mouth

disease, peste des petits ruminants and highly pathogenic avian influenza. Overall, the project aims to strengthen regional integration, promote sustainable agricultural and socio-economic growth, improve access to markets, facilitate trade, and enhance food and nutrition security within the SADC region. The Food, Agriculture and Natural Resources (FANR) Directorate disseminates agricultural information through the Agricultural Information Management System (AIMS). (FAO, 2022).

2.2.7 Regional Water Policy

The water resources of the SADC region are vital for sustainable economic and social development of the region. Apart from sustaining a rich diversity of natural ecosystems, the region's water resources are critical for meeting the basic needs related to water supplies for domestic and industrial requirements, and for sanitation and waste management for millions of people. The SADC region has 15 major river basins which are transboundary, or watercourses shared by two or more countries. (SADC (8), 2005) Of critical importance is the Limpopo River Basin which affects the Limpopo Province, parts of Botswana, Zimbabwe and Mozambique.

Figure 10: SADC Water Basins



The SADC Water Policy has nine thematic areas which address the water resources management issues and challenges or are aimed at optimising the development opportunities. The main policy areas are (SADC (8), 2005):

- Regional Cooperation in Water Resources Management: including policy provisions on water for regional integration and socio-economic development; cooperation in water resources management of shared watercourses; inter-sectoral and international cooperation; and the harmonisation of national policies and legislation.
- Water for Development and Poverty Reduction: containing policy provisions on water for basic human needs and for industrial development; water for food and energy security.

- Water for Environmental Sustainability: containing policy provisions on water and the environment, water quality management, and control of alien invasive species in watercourses.
- Security from Water-related Disasters: including policy provisions covering people's protection from water related disasters; disaster prediction, and management and mitigation.
- Water Resources Information and Management: covering data and information acquisition and management; and information sharing.
- Water Resources Development and Management: including policy provisions on a river basin approach; integrated planning; dams and dam management; water demand management; and alternative sources of water.
- Regional Water Resources Institutional Framework: including policy provisions covering institutional arrangements at regional and national levels and for Shared Watercourse Institutions (SWCIs).
- Stakeholder Participation and Capacity Building: including provisions focusing on participation and awareness creation; capacity building and training; gender mainstreaming; and research, technology development and transfer.
- Financing integrated water resources management in the region.

For the Limpopo Province the regional cooperation policy area is the most important when considering that it shares water resources with three neighbouring countries. Any future development that would affect this regional water resource has to be analysed and agreements with neighbouring countries is critical.

2.2.8 SADC Climate Change Strategy

The SADC Climate Change Strategy and Action Plan aims to enhance the implementation of other overarching regional policy and legislatives frameworks. These include the Revised RISDP, Regional Green Economy Strategy for Sustainable Development and Action Plan (2015); The Infrastructure Development Master Plan; the SADC Industrialization Policy; the Regional Agriculture Policy; the SADC Science, Technology and Innovation Climate Change Response Framework 2020; the SADC Resilience Framework; and the Protocol on Environmental Management for Sustainable Development (2014), the Protocol on Forestry and Revised Protocol on Shared Water Courses amongst others. The SADC Climate Change Strategy and Action Plan aims to provide a broad outline for harmonized and coordinated Regional and National actions to address and respond to the impacts of climate change in line with global and continental objectives. The Climate Change Strategy shall guide the implementation of the Climate Change Programme over a Fifteen-year period (2015 - 2030). The Strategy provides a short, medium to long term framework for implementing elaborate and concrete climate change adaptation and mitigation programmes and projects. The strategy is divided into 3 categories; (i) Climate Change Adaptation, (ii) Climate Change Mitigation, and (iii) Means of implementation and monitoring and evaluation (SADC (9), 2015)

2.2.8.1 Limpopo River Basin

The Limpopo River Basin (LRB) is mostly semi-arid, with a highly variable climate, and is periodically exposed to severe droughts and floods. The water resources are already over-subscribed and there is an over-reliance on rain fed agriculture for food production. It has widely divergent land-use patterns, ecosystems, social, economic and governance systems. There are large, poor rural populations with livelihoods largely based on climate sensitive natural resources. Ecosystems have been significantly altered. Undiversified economies in some parts, and insufficient public and private resources to deal with poverty and shocks, make the Limpopo River Basin highly vulnerable to climate related hazards and change. Current climate trajectories project significant warming across the LRB (noting the uncertainties relating to the projections) with increasing droughts and more frequent dry spells. Past heavy rainfall has already led to significant flood damage in parts and this trend is expected to continue. (US AID, 2013)

2.2.9 Zimbabwe

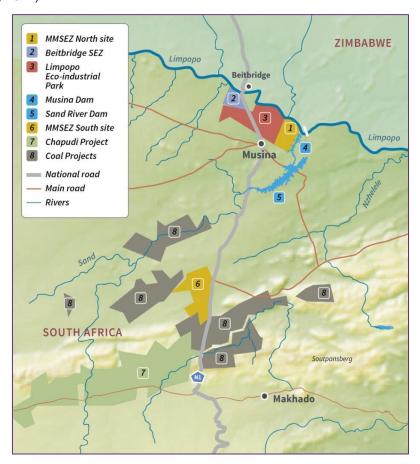
Zimbabwe borders Limpopo Province to the north and is accessed via Beitbridge border post. The N1 national road corridor extends into Zimbabwe and the rest of the continent via Beitbridge. A project to increase capacity at Beitbridge border post by five times is underway. Known as the Beitbridge Modernisation Project, it is scheduled for completion by April 2023. The project reportedly includes separation of traffic (buses, light vehicles, tourists and commercial vehicles), construction of a commercial bridge to link with South Africa, upgrading of Beitbridge Municipality's key infrastructure as well as the refurbishment of road networks in Zimbabwe to and from the border post.

Additional spatial and functional linkages between Zimbabwe and South Africa include:

- Water: The Limpopo River forms the border between South Africa and Zimbabwe. South Africa shares the Limpopo water catchment basin with Zimbabwe, Mozambique and Botswana. South africa's SEZ plans will require water from Zimbabwe where water will be drawn from the Tokwe-Mukosi dam. There however concerns on the effects of climate change and the overall water availability to the planned SEZ (Isaacman & Musemwa, 2021).
- Electricity: Zimbabwe has an agreement to be an offtaker of surplus electricity from ESKOM, subject to availability. In June 2022, Zimbabwe signed an agreement to receive 250MW from Zambia's state-owned power utility Zesco for a duration of five years to curb shortages (Club of Mozambique, 2022). Zimbabwe lies at the centre of the Southern Africa Power Pool (SAPP) transmission grid, with much of the electricity from the north being wheeled south via the Zimbabwe Electricity Transmission and Distribution Company (ZETDC) network.
- Conservation: The Great Limpopo Transfrontier Park (GLTP) straddles the borders of South Africa, Zimbabwe and Mozambique. The GLTP includes Kruger National Park, Gonarezhou park in Zimbabwe, and Limpopo National Park in Mozambique. This conservation and tourism offering calls for collaborative management of the GLTP.
- Industrialisation project: The planned Musina-Makhado SEZ at Beitbridge border post would possibly require water resources from Zimbabwe to augment available sources in South Africa, and once developed, would increase economic activity close to the Zimbabwe border as indicated in figure 8 (Mail and Guardian, 2021).
- Migrant labour: Many Zimbabweans move to South Africa in search of job opportunities, often leaving family members behind in Zimbabwe. Migrant labour and remittances sent to family in Zimbabwe are invisible but important linkages to acknowledge. Recently South Africa indicated that it plans to end special permits for foreigners as it revamps its immigration to manage the influx of economic migrants (Cele, 2022). This might affect migrant labour in Limpopo as well as the movement of migrants through the Province.
- High speed train: The nature of the planned high-speed train needs to be clarified if it will cross the border to Zimbabwe. It forms part of the ambitions of the political leadership and that the project is in early stages. Current planning sees it extent only to Musina (Businesstech, 2019).

Figure 11: Dams Proposed to Supply Southern MMSEZ Site and Proposed Coal Projects

(Mail and Guardian, 2021)



Limited information is available regarding the spatial implication of Zimbabwe's future planning. The theme of the Zimbabwe five-year National Development Strategy (NDS) 1: 2021 to 2025 is "Towards a prosperous and empowered upper middle-income society by 2030". According to the Strategy, the focus to drive growth is on the agricultural, mining, electricity and manufacturing sectors, including value addition in the agriculture and mining sectors. Sufficient, stable and affordable **water and electricity supplies** are some of the key success factors for this growth to be realised.

2.2.10 Botswana

Botswana borders Limpopo Province to the northwest and is mainly accessed via the Groblersbrug border post along the N11 national freeway. A second, smaller border post is found at Pont Drift border post. The reaffirmation of Botswana international boundaries with its neighbours is reportedly ongoing (Netsianda, 2019). The Botswana/ South Africa boundary has been inspected and plans have been formulated to reaffirm and demarcate the boundary.

The main spatial and functional linkages between Botswana and South Africa include:

- Water: SA shares the Orange-Senqu water catchment basin with Botswana and Namibia and the Limpopo water catchment basin with Botswana, Zimbabwe and Mozambique.
- Electricity: Botswana has an agreement to import a maximum allocation of electricity from South Africa
 but the need for imported electricity is decreasing fast. Botswana currently has excess electricity, to the
 degree that the country offered to supplement South African power supply during their off-peak periods
 in 2022 to negate the need for load reduction in SA.
 - Moreover, Botswana is pursuing coal beneficiation through a coal/ gas to liquid project, increasingly supporting IPPs, and have substantial natural gas reserves. Finally, in April 2021, Power Africa signed

a Mega Solar Memorandum of Intent (MOI) with the governments of Botswana and Namibia, the International Finance Corporation, the International Bank of Reconstruction and Development (World Bank), and the African Development Bank. Under Mega Solar, Botswana and Namibia strive to work toward solar power output of 2-5 gigawatts within 20 years (Anon, Botswana - Country Commercial Guide, 2022).

- Mining: The Mmamabula Coalfields in the south-eastern extents of Botswana overlap to South Africa's Waterberg Coalfield. A mining license has been issued for the Mmamabula Coalfields but mining activity has not yet started. Note that the Waterberg Coalfield is already being mined.
- Since Botswana is landlocked there will be a challenge of getting the resource to market when mined. The Botswana government are planning a new heavy haul railway line linking the Mmamabula area with Lephalale to link into the existing Transnet coal haulage network. There is also the possibility of developing a power station at the Mmamabula coalfields. (Global Energy Monitor WIKI, 2021)
- Conservation and tourism: The Greater Mapungubwe Transfrontier Conservation Area (TFCA) straddles the boundaries of South Africa, Botswana and Zimbabwe. The arrangement requires collaborative park management.
- Food/ exports: When regulations allow, meat is exported from SA to Botswana. However, this value chain is sometimes temporarily interrupted to curb the spreading of disease (e.g. foot and mouth disease (FMD)). Note that Botswana also exports much of its red meat products to the European Union (EU).
- Game industry: Botswana is a favourite hunting destination for some South Africans, and meat is imported to South Africa when possible (see above).

The theme of Botswana's Eleventh National Development Plan NDP 11 (Ministry of Finance and Economic Development, 2017) is "Inclusive growth for the realisation of sustainable employment creation and poverty eradication". Botswana's Vision 2036 is for the country to be a high-income country with an export-led economy. The notes that follow describe large-scale economic and infrastructure projects planned or underway in Botswana:

- Industrial: Planned SEZs at Sir Seretse Khama International Airport in Gaborone.
- Water: The growth of the industrial sector, including coal mining and electricity generation, is dependent on large-scale augmentation of fresh water. To this end, the Chobe/ Zambezi river water transfer scheme project is well underway. Once complete, the project will draw approximately 495 million cubic meters of water per annum from the Chobe River on the border of Zambia in the north. Of this allocation, 150 million cubic metres of water will be carried 550km south via a pipeline to Nata, Gweta, Maun, Selebi Phikwe, Serowe/ Palapye and finally to the Greater Gaborone region. The remaining 345 million cubic metres of water will be used for irrigation in the Pandamatenga region in the north. A parallel water augmentation initiative is reportedly being investigated, known as the Atlantic Ocean project, which would involve extracting sea water at Swakopmund, desalination and pumping to Windhoek, before being transferred across the Namib and Kalahari deserts to Botswana. The project is still in research stage. Water augmentation projects would alleviate pressure on water resources that are shared with South Africa.

2.2.11 Mozambique

The eastern extents of Limpopo Provinces comprise the Kruger National Park (KNP); KNP borders on Mozambique to the east and north. Pafuri border post in the KNP offers an alternative access to Mozambique – note that most travellers make use of Komatipoort border post along the N4 national freeway in Mpumalanga Province. The impact of Mozambique's location on Limpopo Province is discussed below:

 Water: South Africa shares the Limpopo water catchment basin with Mozambique, Botswana and Zimbabwe; the Inkomati Basin with Mozambique and Swaziland; and the Maputo-Usuno-Pangola Basin with Mozambique and Swaziland.

- Electricity: Mozambique is richly endowed with a wide diversity of renewable energy sources, namely wind, hydroelectric, biomass, geothermal, wave and solar.
 Mozambique currently exports around 1,300 megawatts of energy to countries in the southern African
 - region, of which 900 to 1000 MW is exported to South Africa from the Cahora Bassa hydroelectric dam on the Zambezi River in western Mozambique (Britannica, The Editors of Encyclopaedia, 2021) (Club of Mozambique, 2019).
 - The Coral South floating liquefied natural gas (FLNG) project located offshore Mozambique, in the southern part of Area-4 of Rovuma Basin, is the first FLNG project in Africa. It is the world's first ultra-deepwater FLNG facility to operate at a water depth of 2,000m. To be permanently moored in the Coral South deepwater gas field, the FLNG is expected to produce 3.4 million tonnes (Mt) of LNG a year, over its estimated design life of 25 years, with a planned start from 2022. BP entered a 20-year sales and purchase agreement with the Area 4 partners in October 2016 to off-take the entire LNG produced from Coral South. Risks that could impact production and profits include natural disasters and deterioration of the security situation in northern Mozambique.
- Tourism: Mozambique is an increasingly popular holiday destination for South Africans.
- Migrant labour: Many Mozambicans migrate to South Africa in search of job opportunities. As with Zimbabwe, migrant labour and remittances sent to family in Mozambique are invisible but important linkages to acknowledge.

The main objective of Mozambique's National Development Strategy (ENDE) 2015-2035 is the improvement of the livelihoods of the population through the structural transformation of the economy, and the expansion and diversification of national production.

2.2.12 Synthesis: Implications of Sub-Continental Spatial Linkages, Initiatives and Projects

Since Limpopo Province connects to three of South Africa's four neighbouring countries, it is both the 'deliverer' and 'receiver' of much of the country's impact on sub-continental level, including:

- Shared resources such as water, conservation land (including game and biodiversity) and coal;
- Electricity augmentation;
- Access to the rest of Africa via road and rail networks (opportunity to maximise export opportunities);
- Migrant labour;
- Tourism: and
- The regional effect of climate change on livelihoods, infrastructure and sectors mentions above.

2.3 National Strategic Direction

2.3.1 National Development Plan: Vision 2030

The **National Development Plan (NDP)** presents the long term developmental vision for a common future for all South Africans. At the outset, it recognises a set of challenges facing South Africa, explicitly referring to spatial divides and other issues with a strong spatial footprint such as infrastructure, the economy and public services. The issues identified are (1) unemployment, (2) poor quality education for black people, (3) poorly located, inadequate and poorly maintained infrastructure, (4) spatial divides, (5) an unsustainable and resource intensive economy, (6) a seriously lacking public health system, (7) uneven and poor quality public services, (8) corruption, and (9) a divided society (National Planning Commission, 2012).

The priorities/objectives set by the NDP revolve around addressing these challenges. These form the pillars for the more detailed proposals put forward in the NDP (National Planning Commission, 2012):

Uniting all South Africans around a common programme to achieve prosperity and equity;

- Promoting active citizenry to strengthen development, democracy and accountability;
- Bringing about faster economic growth, higher investment and greater labour absorption;
- Focusing on key capabilities of people and the State;
- Building a capable and Developmental State; and
- Encouraging strong leadership throughout society to work together to solve problems.

Chapter 8 of the NDP -Transforming Human Settlement and the National Space Economy – sets a long term vision for living in South Africa (National Planning Commission, 2012): "By 2050, South Africa will no longer have: poverty traps in rural areas and urban townships; workers isolated on the periphery of cities; inner cities controlled by slumlords and crime; sterile suburbs with homes surrounded by high walls and electric fences; households spending 30 percent or more of their time, energy and money on daily commuting; decaying infrastructure with power blackouts, undrinkable water, potholes and blocked sewers; violent protests; gridlocked roads and unreliable public transport; new public housing in barren urban landscapes; new private investment creating exclusive enclaves for the rich; fearful immigrant communities living in confined spaces; or rural communities dying as local production collapses."

The normative principles included in SPLUMA entrenches this spatial vision of the NDP (RSA, 2013):

- 1. Spatial Justice
- 2. Spatial Sustainability
- 3. Efficiency
- 4. Spatial Resilience
- 5. Good Administration

2.3.2 Medium Term Strategic Framework, 2019-2024

The Medium Strategic Framework (MTSF) sets medium-term priorities towards achieving the Vision 2030. The five priorities in the MTSF 2019-2024 are (DPME, 2019):

- 1. Capable, Ethical and Developmental State
- 2. Economic Transformation and Job Creation
- 3. Education, Skills and Health
- 4. Consolidating the Social Wage through Reliable and Quality Basic Services
- 5. Spatial Integration, Human Settlements and Local Government
- 6. Social Cohesion and Safer Communities
- 7. A Better Africa and World

Priority 5 seeks to address historical spatial inequalities, ensure the development of sustainable human settlements and promote access to basic services. The outcomes set for Priority 5 are of special significant for spatial planning (DPME, 2019):

Table 3: MTSF Priority 5 Outcomes

Spatial Integration Outcomes:	Environmental Management and Climate Change Outcomes:	
 National frameworks and guidance towards coordinated, integrated and cohesive national spatial development. Regional-level interventions to unlock opportunity, ensure redress and respond to environmental risks and vulnerabilities. Interventions to ensure integrated service delivery and transformation in all places. 	,	
Rural Economy Outcomes:	Human Settlement Outcomes:	

-	 Rapid and sus transformation. 		sustainable	land	reform	and	agrarian	 Spatial transformation through multi-programme integration in priority development areas. Adequate housing and improved quality living environments
								Security of tenure.

(DPME, 2019)

The MTSF 2019-2024 sets the following key interventions (DPME, 2019):

- Approval and implementation of the NSDF and implementation charters to guide national spatial development;
- Three cities redesigned as smart cities; initiate feasibility/ planning for new coastal city;
- Implementing the DDM including One Plans for 44 Districts and 8 Metros;
- Accelerated basic service provision through job creating projects in water, construction of rural roads and bridges and mass infrastructure maintenance programme;
- Implementation of revised CWP;
- Promote township enterprises including investment and support strategy;
- Sector and municipal plans to reduce vulnerability to risks associated with climate change;
- Land acquired for redistribution, restitution and tenure reform: 900 000 ha of land redistributed;
- Increase hectares of land under cultivation in rural and traditional areas;
- Smallholder farmers supported for food production and commercial activities Agri-hubs and agroprocessing facilities established;
- Spatial transformation through multi-programme integration in priority development areas;
- Adequate housing and improved quality living environments and eradicating title deeds backlog; and
- Expansion of the Integrated Public Transport Networks.

2.3.3 District Development Model

Moving towards implementation, the DDM is an intergovernmental relations (IGR) based programme focussing on joint investment and delivery in metropolitan and district spaces (DCoG, 2020). The main instrument of the DDM is the One Plan. The One Plan is an intergovernmental plan for each District or Metropolitan area, setting out a long-term strategic framework to guide investment and delivery. The One Plan is jointly developed and agreed to by all spheres of government (DCoG, 2020).

Together with District and Municipal Spatial Development Frameworks (SDFs), the One Plan will play a role in the implementation of LSDF priorities in District spaces in Limpopo.

2.3.4 National Spatial Development Framework and Implementation Priorities

2.3.4.1 National Spatial Development Framework

The first NSDF prepared in terms of SPLUMA was adopted by Cabinet in March 2022 (DALRRD, 2022). The NSDF is a spatial expression of the NDP and national policy direction and gives strategic guidance to spatial planning in the provincial sphere. Section 15(1) of SPLUMA requires that the PSDF must be consistent with the NSDF (RSA, 2013).

Figure 12: NSDF National Spatial Development Levers

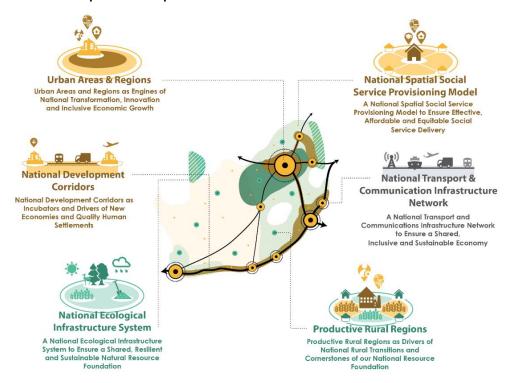
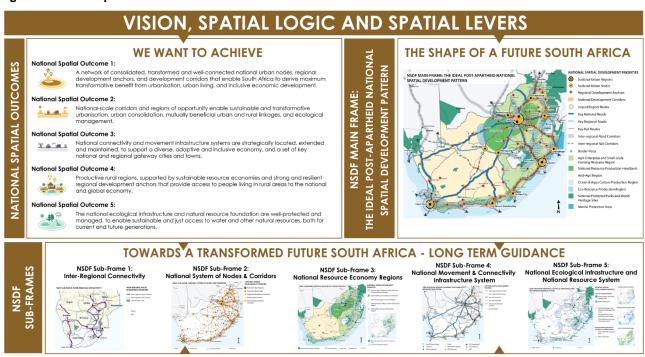


Figure 13: NSDF Spatial Outcomes and Frames



The NSDF Frames include the following spatial structuring elements that are important for consideration in provincial spatial planning to ensure the consistency of the LSDF with the NSDF (DALRRD, 2022):

Box 3: NSDF Element in Limpopo: National Urban Nodes

Polokwane (existing), Tzaneen (emerging)

NSDF high level recommendations for National Urban Nodes:

- Consolidate and direct the rapid population growth in the eastern half of the country to national urban nodes, clusters and corridors by (1) creating quality human settlements and centres of human capital excellence, innovation, trade, inclusive green economies and regional enterprises, and by doing so (2) reaping the urban (youth) dividend.
- Within distressed and sparsely populated areas, and areas that are becoming increasingly more arid, consolidate settlement growth in (1) existing large urban nodes, and (2) emerging and fast-growing urban nodes.
- In addition to strengthening and consolidating expected population growth in urban regions, existing cities and intermediary cities, proactively support the development and emergence of a number of new cities in identified densely populated and high-potential transformation corridors.

Box 4: NSDF Element in Limpopo: Regional Development Anchors

Makhado, Thohoyandou, Giyani, Phalaborwa, Lephalale, Bela Bela, Burgersfort

NSDF high level recommendations for Regional Development Anchors:

- Prioritise and strengthen strategically located regional development anchors in productive rural regions and priority national development, trade and transport corridors to provide a range of services within the specific towns/cities and surrounding network of settlements and productive rural regions
- Support and strengthen strategically located regional development anchors through (1) targeted settlement planning and development, (2) higher-order social infrastructure provision, and (3) focused support for small and medium-sized enterprise development, industrialisation and economic diversification.
- Use the investment and enhanced social service provision in regional development anchors to encourage officials working in these rural regions to stay in these settlements and contribute to the local economy, instead of commuting to larger towns or cities on a daily or weekly/monthly basis.
- Clearly identify the role of specific settlements as gateways and interchanges on the regional public transportation network and incorporate these as such into the planning of 'functional rural regions'.
- Strengthen the connectivity of traditional areas and rural settlements with (1) higher-order urban settlements and (2) economic systems in functional rural regions, by making use of the road and rail network and regional corridor development.
- Plan social infrastructure provision within a regional-rural setting using the 'Social Services Wheel' and use such investment to establish and create well-functioning, compact and lively rural settlements and 'regional rural systems'.

Box 5: NSDF Element in Limpopo: National Development Corridors

Along the N1; corridor linking Polokwane, Tzaneen and Mbombela; corridor linking Makhado, Thohoyandou, Giyani, and Phalaborwa.

NSDF high level recommendations for National Development Corridors:

- The corridors along the east and south coasts (N2) are supported as areas of strong interconnection between (1) high-value rural resource production areas, (2) ecological resource regions, (3) popular tourist destinations, (4) 'comfortable climatic zones', and (5) urban nodes.
- These corridors also provide opportunities for the consolidation of existing cities and the development of 'new' cities supported by well-developed multi-modal connectivity infrastructure, which will require that:
 - o Port and airport development be strengthened in support of inter-regional trade flows and efficiency; and
 - Small harbour development in support of the fishing, tourism and maritime economy at identified coastal regional development anchor and rural service centres be maintained, expanded and accelerated.
- Development alongside Inter-Regional and National Freight and Development Corridors:
 - Consolidate nodal development to support inter-regional development corridors and trade with SADC, which includes (1)
 a focus on SADC corridors, and (2) improving efficiencies at border and port facilities on these routes, to handle greater
 international and regional trade flows.
 - Strengthen regional trade to support the development of cities and towns on these corridors.
 - Prioritise infrastructure (ports, harbours and logistics infrastructure) and efficient operations of nationally significant trade and movement networks.

Box 6: NSDF Element in Limpopo: Eco-Resource Production Region

Regions stretch from Gauteng to Lephalale; from Gauteng through Polokwane, Makhado and Thohoyandou; from Mpumalanga to Phalaborwa; mining areas throughout the Province

NSDF high level recommendations for Eco-Resource Production Region:

- Enhance (1) the productive capacity, (2) environmental and livelihood quality, (3) cultural heritage, and (4) natural resource-access of these regions through effective agrarian practices and enterprise development programmes that are focussed on natural resource restoration and custodianship.
- Discourage further land and settlement development, and carefully manage existing settlements and land uses in productive agricultural regions that play a crucial role in national strategic water production, national food security and rural livelihoods.
- Pursue effective management and custodianship of national strategic water source production regions.
- Ensure efficient rural-rural connectivity in rural regions to enhance the prospects of making a living in these areas.
- Rehabilitate degraded land and ensure effective land use management, settlement consolidation, improved rural connectivity and an eco-resource related enterprise focus to (1) provide opportunities for livelihoods and industry development, and (2) support national water availability.
- Enhance and further expand the value and contribution of the Oceans and Aqua Economy Areas to (1) local livelihoods, and (2) regional and national economic development.

NSDF high level recommendations for Mining and Energy Production Areas:

- 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 should preferably take place in existing regional development anchors and/or small towns where adequate basic municipal and social services are available.
- In deciding on the licencing of new mining operations, (1) national and regional development priorities, and (2) the cumulative impacts of the envisaged mining and related settlement activities and further such activities on the creation of 'functional rural regions' should ideally be considered. Where possible, mining companies should be prompted to become actively involved in the development of such 'functional rural regions' that can survive post the mining era. Instead of spatially scattered piecemeal investments, mining companies, individually, or collectively could, by agreement with the DMRE and the provincial and local governments involved, invest in key 'regional-rural development focused' (1) hard, transport and connectivity, and (2) soft, social services-infrastructure.
- In undertaking such regional-rural development focused investment, collaborative, long-term regional planning, which includes (1) scenario development, (2) population migration projections, (3) diversification strategies, (4) cost/benefit-modelling of regional infrastructure provision, municipal service delivery, and the cumulative impacts of the mining activities, and (5) the optimisation of regional and local development opportunities, would be of great value, and should ideally be undertaken.
- The DMRE must ensure that rehabilitation and negative-impact-mitigation, as provided for in the MPRDA, must extend beyond agreements on paper and be enforced on the ground.

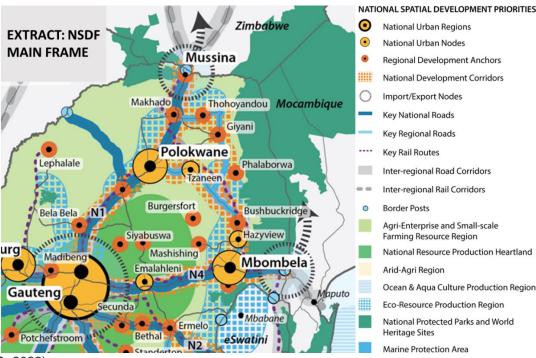
Box 7: NSDF Element in Limpopo: Agri-Enterprise and Small Scale Farming Resource Region

Entire Province excluding Protected Areas.

NSDF high level recommendations for Agri-Enterprise and Small Scale Farming Resource Region:

- Productive use of high-value agricultural land to support national food security.
- Rehabilitation of degraded land and effective land-use management.
- Improvement of rural-rural connections, market accessibility and key agricultural-production infrastructure.
- Enhancement of connectivity through well-planned infrastructure investment and settlement consolidation in well-connected regional development anchors.

Figure 14: NSDF Main Frame: Limpopo View

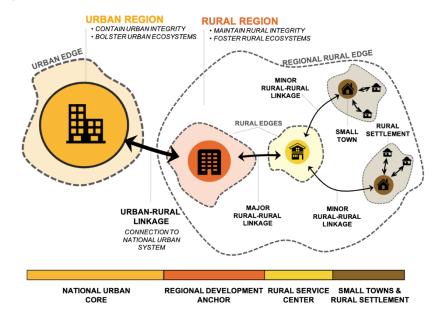


(DALRRD, 2022)

In addition to the above spatial guidance, the NSDF introduces the Regional-Rural Development Model which is of great significant for Limpopo as a Province with both urban development and productive rural regions. According to the NSDF, this model "takes a systemic view of rural areas and proposes the 'soft delineation' of 'polycentric functional rural regions' that have (1) at least one well-connected regional development anchor, located both within the region, and on the national transport network to 'anchor' the region as a whole in, and connect it to the national space economy, (2) social, cultural, historical, economic and cultural characteristics and attributes that would make the development of a 'functional rural region' possible over time, and (3) the potential for intra-regional rural-rural and rural-urban trade between towns and villages in the region." (DALRRD, 2022)

The application of the logic of the Regional-Rural Development Model together with the NSDF guidance in the Main Frame and Sub-Frames should inform the spatial structuring of Limpopo.

Figure 15: NSDF Regional-Rural Development Model



(DALRRD, 2022)

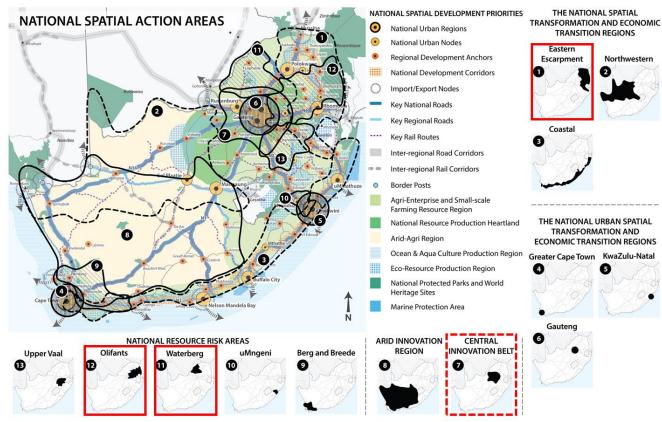
2.3.4.2 National Spatial Action Areas

A key component of the NSDF is a series of five types of National Spatial Action Areas (NSAAs). The NSAAs are spatial regions that represent the "most urgent short-term, strategic spatial development catalysts to (1) bring about radical spatial transformation at scale, (2) manage and mitigate rising national risks, and (3) move our country at speed towards the long-term Ideal National Spatial Development Pattern" (DALRRD, 2022)

Three of the NSAAs extend into Limpopo, while a small portion of a fourth also transcends the provincial boundary (DALRRD, 2022). These are (also see Figure 16 below):

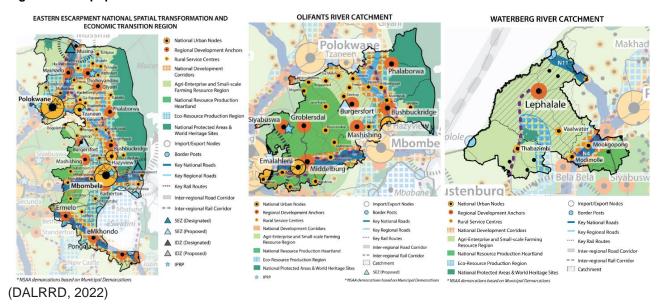
- Eastern Escarpment Spatial Transformation and Economic Transition Region;
- Olifants River Catchment National Resource Risk Area;
- Waterberg River Catchment National Resource Risk Area; and
- Central Innovation Belt (small section).

Figure 16: NSAAs Overview



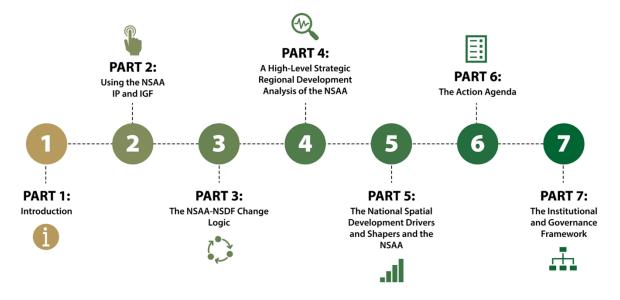
(DALRRD, 2022)

Figure 17: Limpopo: NSAAs



At the time of writing, draft NSAA Implementation Plans and Institutional and Governance Frameworks were being finalised. The proposals contained in these, once finalised and adopted, will be used to inform the Implementation Framework of the LSDF.

Figure 18: NSAA Implementation Plans and Institutional and Governance Frameworks



2.3.5 Infrastructure

2.3.5.1 National Infrastructure Plan and Strategic Infrastructure Projects

The National Infrastructure Plan 2050 (NIP 2050) was promulgated in 2022. The aim is to identify the most critical actions that are needed for sustained improvement in public infrastructure delivery and that will have impact in the short term but with the longer-term imperatives in view (DPW&I, 2022). The NIP is mostly non-spatial, focusing at strategic level and proposing a range of infrastructure but also financial and institutional interventions.

Some points raised in the visioning statements highlight issues for which the spatial impact in Limpopo will have to be considered (DPW&I, 2022):

Vision for energy infrastructure -

- The transition away from fossil fuels will progress in a measurable, just and sustained manner. New installed capacity consists primarily of wind and solar, where South Africa has a comparative and competitive advantage;
- Industrial diversification will be promoted through energy infrastructure delivery; and
- Effective management of waste emanating from energy generation to support environmental sustainability.

Vision for freight transport infrastructure -

- Africa regional transport networks will support interregional trade and better connectivity to global supply chains; and
- Transport hubs will stimulate industrial diversification and clustering.

Vision for water infrastructure -

- Existing water infrastructure will be rehabilitated and maintained and water use efficiencies improved;
 and
- Ecological infrastructure will be rehabilitated and protected.

The first National Infrastructure Plan with 18 identified Strategic Integrated Projects (SIPs) was developed and adopted by Cabinet in 2012 (PICC, 2012). The SIPs emerging from the 2012 NIP are, of which notably SIP1 is critical for Limpopo, including the Lephalale – Ermelo – Richard's Bay Rail Corridor (coal line).

Box 8: Strategic Infrastructure Projects 1 To 18

Geographic SIPs

SIP 1: Unlocking the northern mineral belt with Waterberg as the catalyst: Unlock mineral resources; Rail, water pipelines, energy generation and transmission infrastructure; Thousands of direct jobs across the areas unlocked; Urban development in Waterberg - first major post-apartheid new urban centre will be a "green" development project; Rail capacity to Mpumalanga and Richards Bay; Shift from road to rail in Mpumalanga; Logistics corridor to connect Mpumalanga and Gauteng.

SIP 2: Durban-Free State-Gauteng logistics and industrial corridor.

SIP 3: South-Eastern node & corridor development (Wild Coast, Eastern Cape)

SIP 4: Unlocking the economic opportunities in North West Province

SIP 5: Saldanha-Northern Cape development corridor

Energy SIPs

SIP 8: Green energy in support of the South African economy

SIP 9: Electricity generation to support socioeconomic development: Accelerate the construction of new electricity generation capacity in accordance with the IRP2010 to meet the needs of the economy and address historical imbalances. Monitor implementation of major projects such as new power stations: Medupi, Kusile and Ingula.

SIP 10: Electricity transmission and distribution for all

Spatial SIPs

SIP 6: Integrated municipal infrastructure project (develop national capacity to assist the 23 least resourced districts to address all the maintenance backlogs and upgrades)

SIP 7: Integrated urban space and public transport programme (focus on the 12 largest urban centres of the country - Ekurhuleni, Ethekwini, Joburg, Tshwane, Cape Town, Nelson Mandela Bay, Buffalo City, Mangaung, Mbombela, Rustenburg, Polokwane and Msunduzi)

SIP 11: Agri-logistics and rural infrastructure.

Social Infrastructure SIPs

SIP 12: Revitalisation of public hospitals and other health facilities

SIP 13: National school build programme

SIP 14: Higher education infrastructure

Knowledge SIPs

SIP 15: Expanding access to communication technology

SIP 16: SKA & Meerkat

Regional SIPs

SIP 17: Regional integration for African cooperation and development

SIP 18: Water and sanitation infrastructure

In response to the NIP, the SIPs will be augmented according to 3-year priority actions to 2023/4.

On 24 July 2020, in terms of the Infrastructure Development Act, 23 of 2014, the Presidential Infrastructure Coordinating Commission designated SIPs 19 to 36 (PICC Council, 2020). SIPs 19 and 21 are of specific significance for Limpopo.

Box 9: Strategic Infrastructure Projects 19 to 3

SIP 19: Water and Sanitation

- b. Phase 2A of the Mokolo Crocodile River (West) Augmentation Project: Limpopo
- d. Olifants River Water Resource Development Project Phase 2: Limpopo
- h. Groot Letaba River Water Development Project Nwamitwa Dam: Limpopo

SIP 20: Energy

SIP 21: Transport

- b. N1 Musina Ring Road: Limpopo
- c. N1 Polokwane Eastern Ring Rd Phase 2: Limpopo
- SIP 22: Digital Infrastructure
- SIP 23: Agriculture and Agro-processing
- SIP 24: Human Settlements
- SIP 25: Rural Bridges "Welisizwe" Programme
- SIP 26: Rural Roads Upgrade Programme
- SIP 27: Upgrading and Repair of Township Roads in Municipalities Programme
- SIP 28: PV and Water Savings on Government Buildings Programme
- SIP 29: Comprehensive Urban Management Programme
- SIP 30: Digitising of Government Information Programme
- SIP 31: Removal of Alien Vegetation and Innovative Building Materials Programme
- SIP 32: National Upgrading Support Programme (NUSP)
- SIP 33: Solar Water Initiatives Programme
- SIP 34: Student Accommodation
- SIP 35: SA Connect Phase 1B Programme
- SIP 36: Salvokop Precinct

2.3.5.2 NATMAP 2050

NATMAP 2050 is the integrated, multi-modal national transport master plan for South Africa. In contains a set of spatial proposals (DoT, 2017), of which the following is significant for Limpopo:

Proposed interventions for road infrastructure:

- Upgrading of coal haulage roads in the Province (SIP 1)
- Weighbridge operations and links to one national system

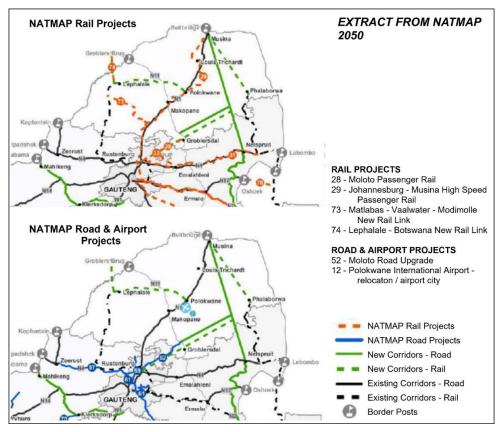
Rail priorities and programmes for various long/medium distance high/medium-speed corridors are:

- N1 (Gauteng-Limpopo-Free State-Western Cape)
- Moloto corridor (second phase to Limpopo)
- Waterberg Mpumalanga–KwaZulu-Natal rail link (part of SIP1): Unlocking the northern mineral belt with Waterberg as catalyst. Rail requirements of the Waterberg region. Transnet is seeking a prefeasibility study on the Waterberg infrastructure and feasibility studies on rail infrastructure linking the coal-mining town of Lephalale in Limpopo to Ermelo in Mpumalanga, which is a key coal-logistics junction.

Airport:

 Polokwane International Airport: Prefeasibility study and construction of aero-city concept and repositioning of Polokwane International Airport (from National Airspace Master Plan (NAMP), (DoT, 2010))

Figure 19: Extract from NATMAP 2050



(DoT, 2017),

2.3.5.3 White Paper on National Rail Policy, 2022

The aim of the National Rail Policy (DoT, 2022) is to "unshackle the rail sector from the constrains of its heritage and let it develop on the strength of challenges that it can address better than other transport modes." The policy notes that the substantial cost of repositioning the rail network will still be smaller than the cost of doing nothing in terms of the benefit of transport running on renewable energy (DoT, 2022). The vision of the Policy rail being the backbone of South Africa's freight logistics and passenger mobility systems

While the policy does not make detailed spatial recommendations, it points to the ever increasing importance of rail. This is of significance for Limpopo in terms of heavy freight haulage and revitalisation / expansion of rail networks. Growing urban area in the Province may in the long term benefit from the connectivity provided by high-speed passenger rail. Priority corridors that are put forward include eThekwini to Cape Town via Nelson Mandela, Gauteng to Cape Town and eThekwini, Musina and Nelson Mandela corridors. These corridors will ideally be cleared for double-stacked containers and may also provide capacity for 160-200km/h passenger trains on some sectors. (DoT, 2022)

2.3.6 Energy

2.3.6.1 Integrated Resource Plan, 2019

The Integrated Resource Plan (IRP) of 2019 proposes a diversified energy mix consisting of coal, nuclear, natural gas, renewable energy (solar PV, wind and CSP with storage) and hydro, complemented by improved energy storage (DMRE, 2019).

The spatial implication for Limpopo would be to consider the long term impact of decreased reliance on coal, but also to pro-actively identify priority areas for development of sustainable energy. Due to its location, the Province will have most likely be affected by cross-border infrastructure.

Box 10: Key Decisions: IRP 2019

Decision 5: Retain the current annual build limits on renewables (wind and PV) pending the finalisation of a just transition plan.

Decision 6: South Africa should not sterilise the development of its coal resources for purposes of power generation, instead all new coal power projects must be based on high efficiency, low emission technologies and other cleaner coal technologies.

Decision 7: To support the development of gas infrastructure and in addition to the new gas to power capacity in Table 5, convert existing diesel-fired power plants (Peakers) to gas.

Decision 8: Commence preparations for a nuclear build programme to the extent of 2 500 MW at a pace and scale that the country can afford because it is a no-regret option in the long term.

Decision 9: In support of regional electricity interconnection including hydropower and gas, South Africa will participate in strategic power projects that enable the development of cross-border infrastructure needed for the regional energy trading. (DMRE, 2019)

Also noteworthy in this respect is the South African Renewable Energy Masterplan (SAREM), which is an implementation plan for driving industrialisation through the renewable energy sector and its value chain currently being compiled. This is however not a policy document but a collaboration between government, industry, labour and civil society.

2.3.7 Water

2.3.7.1 Water Management Areas

The Limpopo and Olifants Water Management Areas (WMAs) are in Limpopo. There is currently a proposal to combine the two WMAs into the Limpopo Olifants WMA, according to the National State of Water Report 2021 (DWA, 2021).

The National State of Water Report also points out that South Africa shares four international river basins, namely the Limpopo, Orange/Senqu, Inkomati, and Maputo, with six neighbouring countries: Botswana, Lesotho, Mozambique, Namibia, eSwatini, and Zimbabwe (DWA, 2021).

The Limpopo River is shared with Botswana, Zimbabwe and Mozambique. To this effect, an agreement has been reached between Republic of Botswana, Republic of Mozambique, Republic of South Africa, and Republic of Zimbabwe on the establishment of the Limpopo Watercourse Commission (LIMCOM) on 2003/11/27. The responsibility of these shared watercourse institutions centre on international cooperation on water resource management of the basin, including equitable water sharing between countries, basin management, operation of basin infrastructure for droughts and floods, and future water resource development options, water resource protection, etc. South Africa has three international rivers which it shares with its neighbours. (DWA, 2021)

Water management areas is an important spatial shaper since water availability (or lack thereof) is a determining factor in the viability of various land uses and should be taken into account when formulating long-term development proposals.

2.3.8 Human Settlements and Urban Development

2.3.8.1 Human Settlements Framework for Spatial Transformation and Consolidation, 2019

As stated in the Limpopo Development Plan (Limpopo OTP, 2020), 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. An issue highlighted in the framework is the risk of unplanned rural densification, which should be addressed in the reviewed LSDF.

In response to the Framework, a series of Priority Human Settlement and Housing Development Areas (PHSHDAs) was declared.

2.3.8.2 Priority Human Settlement and Housing Development Areas, 2020

The Minister of Human Settlements, Water and Sanitation, Lindiwe Sisulu has declared 136 PHSHDAs across the entire country. The intention is to ensure redress regarding the pre-1994 spatial plan, revitalising towns and cities and strengthening the livelihoods of households (Minister of Human Settlements, 2020).

The location of the PHSHDAs was selected to enable residents to live closer to areas with economic activities and social amenities such as schools, health facilities and job opportunities as well as access to adequate accommodation (Minister of Human Settlements, 2020). The PHSHDAs will be implemented through the national housing programmes namely, Enhanced People's Housing Process (Zenzeleni), Informal Settlements Upgrading, Integrated Residential Development Programme and Social Housing Programme.

The following eleven PHSHDAs located in five District Municipalities (DMs), constituting eight Local Municipalities (LMs), in Limpopo have been declared (Government Gazette 15 May 2020):

- 1. Polokwane CBD and Surrounds: Annadale, Bendor, Blood River, Dairing, Ivy Park, Ivydale AH, New Pietersburg, Nirvana, Peninapark, Pietersburg, Pietersburg Ind, Polokwane, Seshego-9A, 9B, 9C, 9D, 9E, 9F, 9G, 9H, 9J, 9K, 9L, SeshegoA, B, C, D, E, F, G, H, Southern Gateway, Welgelegen, Westenburg
- 2. Polokwane R71 Corridor: Badimong, Dalmada AH, Ga-Mothapo, Mamadimo Park, Mankweng, MankwengA, B, C, D, E, F, Megoring, Molapi, Mothibaskraal, Nobody, Ramatlhodi, Syferkuil-A, Turfloop
- 3. Greater Giyani: Giyani-A,B, BA, C, D, E, F, Hluphekani
- 4. Nkowankowa Node: Dan, Dan-C, Mokgolobotho, Nkomanini, Nkowankowa-A, Nkowankowa-D, Nkowankowa-I
- 5. Tzaneen and Pompagalana Agricultural Holdings
- 6. Burgersfort
- 7. Makhado Rural and Musina Rural: Van der Bijl, Dreyer, Antrobus Portion 2, Steenbok, Somme, Battle, R/E of Lekkerlag, Joffree
- 8. Musina, and Musina Rural
- 9. Thohoyanou Node: Makwarela, Mutoti Village, Shayandima, Thohoyandou- BA, Thohoyandou-F, Thohoyandou-Ia, Thohoyandou-J, Thohoyandou-K, Thohoyandou-L, Thohoyandou-M, Thohoyandou-N, Thohoyandou-S, Tshilivho, Tswinga, Thulamela
- 10. Lephalale and Marapong
- 11. Greater Northam: Hlogoyatau, Ipelegeng, Mojuteng, Northam, Regorogile, Smersha Block, Thabazimbi

The spatial location and configuration of the PHSHDAs will have a major impact on the provincial space economy. Their development should be guided by the provisions of the NSDF as well as the LSDF.

2.3.8.3 Integrated Urban Development Framework

The overall outcome of the Integrated Urban Development Framework (IUDF) is spatial transformation which will marks a "New Deal for South African cities and towns, by steering urban growth towards a sustainable growth model of compact, connected and coordinated cities and towns" (CoGTA, 2016). In terms of its vision, the IUDF strives for "liveable, safe, resource-efficient cities and towns that are socially integrated, economically inclusive and globally competitive, where residents actively participate in urban life" (CoGTA, 2016). This vision is supported by four overall strategic goals, i.e. (CoGTA, 2016):

- Spatial integration: To forge new spatial forms in settlement, transport, social and economic areas;
- Inclusion and access: To ensure people have access to social and economic services, opportunities and choices;
- Growth: To harness urban dynamism for inclusive, sustainable economic growth and development; and
- Governance: To enhance the capacity of the state and its citizens to work together to achieve spatial and social integration.

The Department of Co-Operative Governance (DCoG), acting as the implementing agent of the IUDF has developed a new IUDF Implementation Plan 2020-2025, in collaboration with key sectors and partners which was approved by the Minister March 2021 (DCoG, 2021). The implementation of the IUDF relies of three core programmes (DCoG, 2021):

- Cities Support Programme, focusing on the Metros and being driven by National Treasury (not currently relevant to Limpopo);
- Intermediate City Municipalities (ICM) Programme, driven by DCoG; and
- Small Town Regeneration (STR) Programme, driven by SALGA and DCoG.

2.3.8.4 Intermediate Cities Municipalities Programme (ICM)

The ICM programme has the largest footprint in Limpopo of the three IUDF Programme. A total of 39 municipalities country-wide are included in this programme, in different sub-categories. The following municipalities in Limpopo are included in the ICM, of which Polokwane, Fetakgomo Tubatse and Thulamela are currently active (SACN, 2021):

Large and Semi-Diverse Cities / Towns:

Polokwane

Mining Towns:

- FetakgomoTubatse
- Ba-Palaborwa
- Lephalale

Service Centres:

- Thulamela
- Greater Gijani
- Mogalakwena

Towns with low GVA and high population:

- Makhado
- Greater Tzaneen

2.3.8.5 Small Town Regeneration Programme

A new Small Town Regeneration Strategy was completed in 2021 to structure the STR Programme. The programme has the following tightly intertwined objectives (DCoG, 2021):

- To support, popularise and strengthen the introduction of a regional approach to planning for settlement development, restructuring and consolidation, human development, economic growth and job creation, social service provision and infrastructure investment, upgrading and maintenance in the work of all three spheres and sectors of government and the non-state sector.
- To support state and non-state entities, actors and initiatives concerned with and involved in the rejuvenation/regeneration and 'kickstart development' of left behind and forgotten places and parts of places within a regionalist approach.

- To enhance the financial viability of municipalities through the development, strengthening and deepening of functional regions throughout the country.
- To provide targeted support to places and regions in a small selection of cases with the explicit intention of not only assisting the specific place and/or region, but to learn from these cases, or use these cases to assist in the popularisation and strengthening of the regional approach and/or ways in which left behind and forgotten places and/or regions can be rejuvenated/regenerated or kickstarted.
- To advocate for a capable, willing and enabling government (including local authority) that actively
 promotes urban management, functional settlements, and enables economic growth through private
 sector participation in the economy through municipal-led programmes.
- To further engage where towns are dysfunctional, and not operating well, it should FIRST be a priority to stabilise and ensure basic levels of service are provided. The next step is to realise spatial transformation. Without a functional municipality and settlement, spatial transformation will be a dream, and completely unrealisable.

The implementation of the STR will follow a five-phase methodology that comprises:

- Phase 1 The formulation of a Functional Entity/Governing Body and Task Team
- Phase 2 Roll out to five (5) Priority 1 towns: This phase will include the roll out to five Priority 1 towns that scored the highest during the readiness assessment.
- Phase 3 Roll out to Priority 1 towns (continued): The roll out to the next eight Priority 1 towns that scored the highest during the readiness assessment
- Phase 3 Roll out to Priority 1 towns (continued): The roll out to the next 10 Priority 1 towns that scored
 the highest during the readiness assessment
- Phase 5 Performance Review: This phase comprises the roll out to eleven Priority 2 towns as well as as an assessment and review process of the implementation of the STR within Phases 1 4.

Limpopo has very few towns that are included in the STR, all located near the southern border of the Province, and none of the towns are regarded as Priority 1 towns:

- Priority 2 Bela Bela, Groblersdal
- Priority 3 -Burgersfort, Hoedspruit

2.3.9 Agriculture and Rural Development

2.3.9.1 Comprehensive Rural Development Programme

The Comprehensive Rural Development Programme (CRDP) 2009 intends to deal effectively with rural poverty through the optimal use and management of natural resources by enabling rural people to take control of their destiny, with the support from government (DLRRD, n.d.). The CRDP aimed achieve this through a co-ordinated and integrated broad based agrarian transformation, strategic investment in economic and social infrastructure that will benefit the entire rural communities and land reform.

To ensure the achievement of rural development objectives, a three-pronged strategy including agrarian transformation, rural development and land reform was proposed:

- Agrarian transformation
- Rural development
- Land reform

Initiatives such as Agri Parks and District Rural Development Plans developed from the CRDP.

2.3.9.2 Agri Parks

To support agrarian reform, the Department of Agriculture, Land Reform and Rural Development has embarked on a process to establish Agri-parks.

An Agri-park is a networked innovation system of agro-production, processing, logistics, marketing, training and extension services, located in a District Municipality (DALRRD, n.d.). As a network it enables a market-driven combination and integration of various agricultural activities and rural transformation services. The Agri-park comprises a series of Farmer Production Support Unit (FPSU) linked to an Agri-hub (AH) which is intended to be a production, equipment hire, processing, packaging, logistics, innovation and training unit (DALRRD, n.d.).

The Minister remarked in March 2022 that through these hubs, agricultural production could be the anchor for rural industrialisation. (foodformzansi, 2022).

The following Agri-park elements are designated for Limpopo (DALRRD, n.d.):1

Table 4: Limpopo Agri-Parks

Capricorn	 8 FPSUs to be located in: Aganang (Matlala), Molemole (Botlokwa, along N1), Blouberg (Avon, Dendron, and Ga- Malebogo), Polokwane (Moletjie), Lepele–Nkumpi (Tooseng and Mogodi). 1 Agri-Hub located in Ga-Poopedi.
Mopani	 14 FPSUs to be located in: Greater Letaba (3), Greater Giyani (3), Greater Tzaneen (3), Maruleng (3), Ba-Phalaborwa (2) 1 Agri-Hub, located in Tzaneen.
Vhembe	 7 FPSUs to be located in: Levubu, Waterpoort, Malamulele, Tshiombo, Dzanani, Hlanganani, and Tshilwavhusiku/ Sinthumule. 1 Agri-Hub located in Nwanedi or Makhado / Thoyohandou
Waterberg	 7 FPSUs to be located in: Levubu, Waterpoort, Malamulele, Tshiombo, Dzanani, Hlanganani, and Tshilwavhusiku/ Sinthumule. 1 Agri-Hub located in Nwanedi.
Sekhukhune	 2 FPSUs in Jane Furse / Manganeng and Burgersfort or Mecklenburg / Driekop 1 Agri-Hub in Groblersdal

2.3.9.3 Draft National Integrated Rural Development Sector Strategy, 2022

The draft National Integrated Rural Development Sector Strategy builds on the CRDP and other initiatives and has the following objectives (DALRRD, 2022):

- To provide a national definition for rural and rural development;
- To coordinate, fund and implement rural initiatives including catalytic programmes and projects; and
- To provide a well-coordinated and efficient national monitoring, evaluation, and oversight system to drive and assess the impact of the various rural development initiatives against Government's outcomes and overall strategic direction.

It provides clear definitions of "rural" and "rural development". It states that rural areas are generally regarded as areas outside cities and towns, and that economic activity in these areas is in most cases intrinsically tied to natural resource use and/or beneficiation, and consists of agriculture, fishing, forestry, nature conservation, ecotourism and mining. It also expands the conceptualization rural/rurality from the NSDF definition to encompass peri-urban areas and defined rural areas within metros and other urban spaces. (DALRRD, 2022)

Rural development is defined as the process of improving the quality of life and economic well-being of people living in a rural area, by planned interventions in the area in the ownership and use of land, and the provision,

¹ The information contained in this table was obtain from the DALRRD Agri Park website. Discrepancies were however identified from District SDFs (indicated in italics). Some of the preferred locations may have changed based on feasibility studies – to be confirmed.

maintenance and upgrading of infrastructure and social services, and the type and intensity of economic activities.

It proposes the following measures (DALRRD, 2022), with Measure 2 being the most significant in terms of spatial impact:

- Measure 1: Improved governance, administration and coordination
- Measure 2: Improved rural economy
- Measure 3: Prioritise social interventions
- Measure 4: Active monitoring and evaluation

Measure 2: Improved rural economy

Key focus areas for improving the rural economy include geographical and project-specific focus areas to which resources will be channelled:

- Initial focus on agrarian and settlement transformation in prioritised:
 - Agricultural and Agro-Processing Masterplan (AAMP) and Production Schemes;
 - Communal areas;
 - Land reform areas; and
 - Commercial farms where farm workers and farm dwellers live;
- The 18 SIPs:
- Growth centres and development corridors;
- Rural towns, villages and service centres that have major social mobilisation potential, as well as those with infrastructure, employment and skills enhancement needs;
- River valley development areas;
- Agri-parks and other agricultural schemes;
- The National Biodiversity Economy Strategy and the Land Reform Biodiversity Stewardship Initiative;
- Agri-villages and human settlements of farm workers and labourers; and
- Mega-models offering turnkey solutions as well as infrastructural and service delivery efficiencies.

General focus areas for facilitation, coordination, streamlining and collaboration include:

- Rural infrastructure, including:
 - Better broadband, expanded network and mobile infrastructure to transform the rural economy with greater potential for small enterprise development
 - Agri-Parks (Farmer Production Support Units, Agri-hubs and Rural Urban Market Centres) to support agro-industrialisation;
 - Improved rural housing including smart agri-villages/eco-tourism villages;
 - Improved rural roads programme (linked to enterprise development such as brickmaking and maintenance);
 - Water and sanitation (on- and off-grid);
 - Energy reforms (on- and off-grid solutions).
- Rural enterprise development (especially rural enterprises and cooperatives that can be linked to school
 nutrition programmes and catering for the prisons, etc). Other forms of non-farm employment (this
 includes small commercial and support enterprises (e.g., small processing and packaging industries),
 tourism and mining with a focus on equitability and inclusivity, robust levels of organisation and
 technical adaptability);
- Agricultural and rural market expansion;

- Improved climate adaptation and mitigation strategies linked to green incentives; and
- Enhanced rural financing and investment opportunities, including village and cooperative banking models:
 - Equitable and inclusive joint ventures to acquire stakes for rural communities.
 - Community investment support to secure public and private partners in joint large scale social and economic ventures.
 - Pooling of suitable private sector corporate social investment programmes and projects with emphasis on self-help projects, knowledge and skills improvement and development, basic equipment, basic social infrastructure, as well as research and development targeted at small enterprises.

2.3.9.4 Agriculture and Agro-Processing Master Plan, 2022

The Agriculture and Agro-Processing Master Plan (AAMP) is the product of a social compact between labour, government, civil society, and industry. It aims to promote inclusive growth, competitiveness, transformation, employment, and food security (DALRRD, 2022). The AAMP (DALRRD, 2022):

- Identifies key commodities that could be promoted across value chains.
- Provides insights into underexplored opportunities in international markets.

The vision of the AAMP is to create (DALRRD, 2022): "Globally competitive agriculture and agro-processing sectors drive market-oriented and inclusive production to develop rural economies, ensure food security, and grow decent and inclusive employment and entrepreneurial opportunities for all participants in agriculture and agro-processing value chains".

The objectives of the AAMP are to (DALRRD, 2022):

- Increase food security in South Africa;
- Promote sustainable transformation in the agriculture and agro-processing sectors;
- Improve access to local and export markets, which will require constant upgrades in the quality of supply to bolster South Africa's competitiveness;
- Enhance competitiveness and entrepreneurship opportunities through technological innovation, infrastructure construction and digitalization;
- Create an effective farmer support system and agro-processing incentives;
- Create decent, growing and inclusive employment, in addition to improving working conditions and fair wages in the sector
- Improve the safety of the farming community and reduce stock and crop thefts and farm attacks;
 □ Create a capable state and enabling policy environment; and □ Enhance resilience to the effects of climate change and promote sustainable management of natural resources and principles of just energy transition.

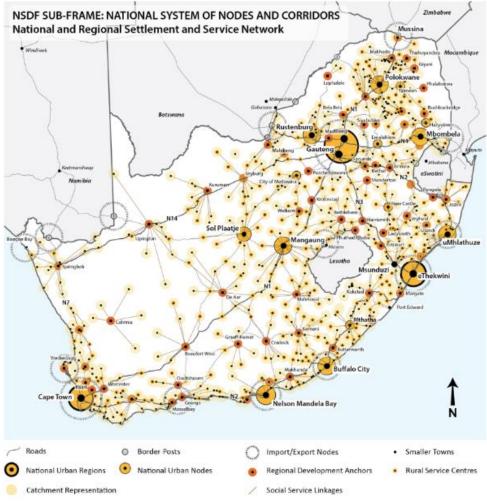
The AAMP contains a series of interventions aimed at implementing its objectives. These include cross-cutting interventions to create an enabling environment in respect of natural resources, human capital and commercial enablers, and specific value chain interventions for field crops, horticulture, livestock and agro-processing. In terms of implications for the LSDF, the approach toward creating an enabling environment and interventions in value chains should be noted. None of the specific interventions with a spatial footprint occurs in Limpopo Province (e.g. increasing harbour capacity, releasing land through development of dams). The backbone of the AAMP, i.e. a compact between labour, government, civil society, and industry, should inform the approach towards the LSDF implementation framework.

2.3.10 Social Services

2.3.10.1 NSDF Social Services Recommendations

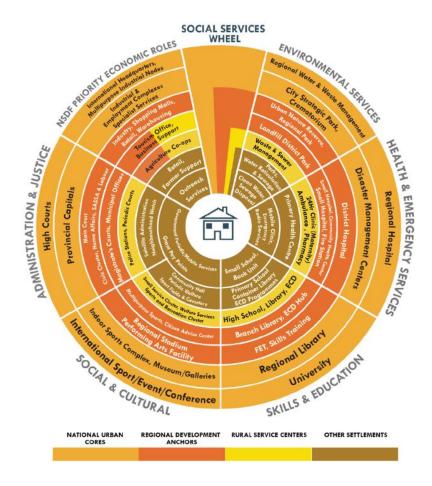
The NSDF includes very specific guidelines regarding a differentiated approach of providing a different mix and scale of social services to different settlement typologies (DALRRD, 2022):

Figure 20: NSDF Settlement and Service Network



(DALRRD, 2022)

Figure 21: NSDF "Service Wheel"



(DALRRD, 2022)

The settlement typology proposed in the NSDF coupled with the social service recommendations should be considered and applied to the Limpopo settlement network.

2.3.10.2 Government Precincts

At the time of writing, the national Department of Public Works and Infrastructure (NDPWI) was in the process of finalising a strategic spatial plan to guide the development of government precincts in an integrated way. Government Precinct containing a range of social services are currently in the process being planned, assessed or implemented in the following cities / towns in Limpopo (NDPWI response to enquiry, 2022):

- Polokwane (urban node): Implementation on Portion 264 of Farm 688. NDPWI offices to be built as Phase 1;
- Louis Trichardt: Remaining Portion of Erf 1507 approximately 4 hectare being investigated (land exchange and office construction);
- Burgersfort (regional development anchor) Feasibility study suggested continuing leasing for the next 3 years;
- Thohoyandou (regional development anchor) planning stages;
- Lephalale (regional development anchors) awaiting feasibility analysis; and
- Lebowakgomo planning stages.

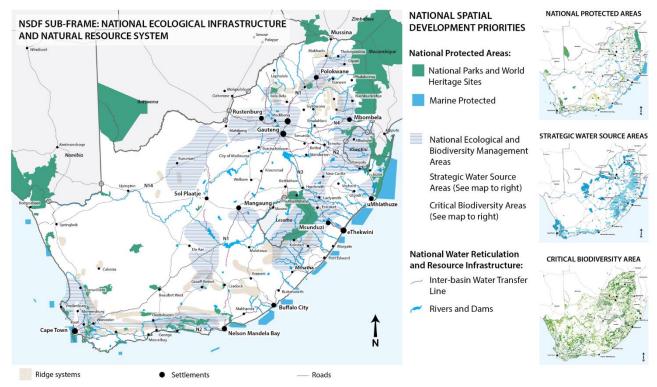
The location of Government Precincts should ideally be aligned with the settlement network in the NSDF with Regional Development Anchors being prioritised.

2.3.11 Biodiversity and Ecosystem Services

2.3.11.1 NSDF Ecological Infrastructure and Natural Resource Recommendations

In addition to spatial form proposals, the NSDF contains guidance regarding the sustainable use and protection of national ecological infrastructure and the natural resource system (DALRRD, 2022):

Figure 22: NSDF Ecological Sub-Frame



(DALRRD, 2022)

Protected Areas:

Key recommendations centre on the implementation of the National Protected Areas Expansion Strategy, the contribution of protected areas to both human life and the economy (e.g. nature-based tourism and wildlife economy), the requirement of biodiversity stewardship and land reform programmes to work hand-in-hand to give communal landholders access to the social and economic opportunities, and also as a way to extend the protected area network.

National Ecological and Biodiversity Management Areas:

Key recommendations centre on the management and protection of Critical Biodiversity Areas (CBAs) and Strategic.

National Water Reticulation and Resource Infrastructure:

Key recommendations centre on the maintenance, extension and upgrading of the SWSA resource infrastructure network to support nationally significant spatial development areas and the maintenance and extension of waterpipes to connect/cover national urban regions and cores, regional development anchors and rural service centres and key economic production sites in line with national spatial, social and economic development priorities.

2.3.11.2 National Biodiversity Assessment and Prioritisation Tools

The National Biodiversity Assessment (NBA) 2018 is the primary tool for monitoring and reporting on the state of biodiversity in South Africa and informs policies, strategic objectives and activities for managing and conserving biodiversity more effectively (SANBI, 2019). The NBA is especially important for informing the National Biodiversity Strategy and Action Plan (NBSAP), the National Biodiversity Framework (NBF) and the National Protected Area Expansion Strategy (NPAES), the National Spatial Development Framework, the National Water and Sanitation Master Plan and the National Biodiversity Economy Strategy (SANBI, 2019).

The NBA 2018 key messages are grouped into three clusters (SANBI, 2019):

Figure 23: National Biodiversity Assessment Key Messages

		Key messages
> 0	A1.	Biodiversity PROVIDES JOBS
ersity STC	A2.	HEALTHY ECOSYSTEMS are essential for water security
de	A3.	WATER FLOWING INTO THE SEA provides multiple benefits to people
A South Africa's biodiversity PROVIDES BENEFITS TO PEOPLE	A4.	SMALL HIGH-VALUE ECOSYSTEM TYPES take up just 5% of South Africa's territory, but provide multiple benefits to people
돌	A5.	BENEFITS FROM FISHING are at risk, including food and job security
South	A6.	CLIMATE CHANGE is impacting on people and ecosystems; in spite of this, HEALTHY ECOSYSTEMS can help us adapt to climate change ${\sf C}$
	B1.	${\tt ESTUARIESANDWETLANDSarethemostthreatenedandleastprotectedecosystemsin}\\ SouthAfrica$
<u>≥</u> ⊋	B2.	COASTAL BIODIVERSITY ASSETS, including beaches, are at risk
wers HA	B3.	PROTECTED AREAS: investment success in the ocean and on land
biodi Sure E AT	B4.	PROTECTED AREAS: providing effective protection for many species
_ C	B5.	FRESHWATER FISHES are the most threatened species group in South Africa
South Africa's biodiversity is under pressure, but SOLUTIONS ARE AT HAND	B6.	TRENDS IN THREAT STATUS show rapid declines in some of South Africa's species, especially freshwater species and butterflies
<u>s</u> S	B7.	Areas where pressures are concentrated should be PRIORITIES FOR SPATIAL PLANNING
-	B8.	BIOLOGICAL INVASIONS threaten biodiversity and human wellbeing
	B9.	COOPERATIVE GOVERNANCE is essential for healthy landscapes and seascapes
lates ESS	C1.	South Africa's new SEAMLESS MAP OF ECOSYSTEM TYPES paves the way for improved assessment, planning and monitoring
C The NBA stimulates work to ADDRESS (NOW LEDGE CAPS	C2.	NEW INDICATORS developed during the NBA 2018 advance South Africa's ability to report on the status of biodiversity
N P P P P P P P P P P P P P P P P P P P	C3.	EVALUATION OF GENETIC DIVERSITY brings new value to the NBA
The	C4.	Investment in strategic and collaborative BIODIVERSITY MONITORING PROGRAMMES is crucial to inform management and decision making and for biodiversity assessments

Complementing the NBA, South Africa has several established spatial prioritisation tools for informing spatial planning (SANBI, 2019). This includes the provincial spatial biodiversity plans that include spatial data of Critical Biodiversity Areas (CBAs) and Ecological Support Areas (ESAs), and the National Protected Area Expansion Strategy (NPAES). Other tools include spatial data regarding Strategic Water Source Areas (SWSAs) and Freshwater Ecosystem Priority Areas (FEPAs).

The CBA maps are used to inform spatial planning that shows the desired future uses of the land or ocean. The NPAES identifies geographic priority areas for expansion of the protected area network, with a focus on underprotected ecosystems. The national map of FEPAs in South Africa includes several priority areas for rivers and inland wetlands, as well as important fish areas (formerly termed fish sanctuaries). (SANBI, 2019)

Strategic Water Source Areas that are critical for water security provincially and nationally are located in Limpopo in areas also impacted by human activity such as mining, agriculture and human settlement. This is a key issue that will have to be considered in the LSDF.

2.3.12 Climate Change

2.3.12.1 National Climate Change Response White Paper, 2011

The National Climate Change Response White Paper set the following objectives regarding climate change (RSA, 2011):

- South Africa will effectively manage inevitable climate change impacts through interventions that build and sustain South Africa's social, economic and environmental resilience and emergency response capacity.
- South Africa will make a fair contribution to the global effort to stabilise GHG concentrations in the
 atmosphere at a level that avoids dangerous anthropogenic interference with the climate system within
 a timeframe that enables economic, social and environmental development to proceed in a sustainable
 manner.

It also indicates a list of near-term Priority Flagship Programmes (RSA, 2011):

- Public Works
- Water Conservation and Demand Management
- Renewable Energy
- Energy Efficiency and Energy Demand Management
- Transport
- Waste Management
- Carbon Capture and Sequestration
- Adaptation Research

In terms of institutional responsibility, it is stated that the environment is a concurrent function between provincial and national government, and Provinces will coordinate provincial adaptation and mitigation responses across their own line departments, as well as between municipalities within the Province (RSA, 2011). It requires each Province to develop a climate response strategy, which evaluates provincial climate risks and impacts and seeks to give effect to the National Climate Change Response Policy at provincial level.

Although at a high level, the themes highlighted in the Priority Flagship Programmes is an indication of the issues that should be considered in the LSDF in terms of the contribution of spatial form to mitigating climate change and adapting to its impact.

2.3.12.2 Climate Change Bill, 2022

The Climate Change Bill, 9 of 2022, proposed a range of institutional and planning interventions to address climate changes, and confirm South Africa's carbon emission reduction targets (RSA, 2022).

It proposes Provincial Forums on Climate Change, stating that every Premier's intergovernmental forum, established in terms of section 16 of the Intergovernmental Relations Framework Act, also serves as a Provincial Forum on Climate Change (RSA, 2022). Such a forum must coordinate climate change response actions in the relevant Province and provide a report to the President's Coordinating Council which report must include climate change considerations.

It also requires the relevant MEC to within one year of the publication of the National Adaptation Strategy and Plan undertake a climate change needs and response assessment (RSA, 2022). Following this, within two years of undertaking the climate change needs and response assessment, the MEC (Province) must develop and implement a climate change response implementation plan as a component of, and in conjunction with, provincial, metropolitan or district municipal planning instruments, policies and programmes. This requirement will have implications for a future review of the LSDF, and the groundwork should be included in the current LSDF in preparation.

The Bill further requires various line functions to develop sectoral emission targets and sector adaptation strategies and plans (RSA, 2022).

The Interim National Greenhouse Gas Emissions Trajectory included in the Bill is as follows (RSA, 2022):

Box 11: Climate Change Bill Interim National Greenhouse Gas Emissions Trajectory

The Republic's greenhouse gas emissions will-

- a) peak in the period 2020 to 2025 in a range with a lower limit of 398 Megatonnes (109kg) (Mt) CO2-eq and upper limits of 583 Mt CO2-eq and 614 Mt CO2-eq for 2020 and 2025, respectively;
- b) plateau for up to 10 years after the peak within the range with a lower limit of 398 Mt CO2-eq and an upper limit of 614 Mt CO2-eq.; and
- from 2036 onwards, decline in absolute terms to a range with a lower limit of 212 Mt CO2-eq and an upper limit of 428 Mt CO2-eq by 2050.

2.3.12.3 Ecosystem based Adaptation

Ecosystems based Adaptation (EbA) is the use of biodiversity and ecosystems to support communities to adapt to life in a less predictable climate system and can lessen flooding, improve water, and soil quality, and contribute to livelihood opportunities (DEA & SANBI, 2016). This includes the investments in the management, restoration and rehabilitation of ecosystems and their services in the communities who depend on them. The Strategic Framework and Overarching Implementation Plan for Ecosystem-Based Adaptation (EbA) in South Africa 2016 – 2021 ((DEA & SANBI, 2016)) sets out this approach in detail. This approach is an opportunity of addressing climate change impact in Limpopo and should be considered in the implementation framework of the LDF.

2.3.13 Economic Initiatives and Innovation

2.3.13.1 The Economic Reconstruction and Recovery Plan

The Economic Reconstruction and Recovery Plan is a key component of Government's response to the COVID-19 pandemic and the current economic recession (RSA, 2020).

Although no specific spatial referencing is included, the priority interventions included in the Plan should inform the spatial trajectory / spatial decisions and focus areas for strategic spatial planning in the Province (RSA, 2020):

- Aggressive infrastructure investment;
- Employment orientated strategic localization, reindustrialization and export promotion;
- Energy security;
- Support for tourism recovery and growth;
- Gender equality and economic inclusion of women and youth;
- Green economy interventions;
- Mass public employment interventions;
- Strengthening food security; and
- Macro-economic interventions

To support economic reconstruction and recovery, the following structural reforms will be implemented (RSA, 2020):

- Modernizing and reforming network industries and associated state owned enterprises;
- Re-orienting trade policies and pursuing greater regional integration to boost exports, employment and innovation;
- Lowering barriers to entry to make it easier for businesses to start, grow, and compete;
- Supporting labour-intensive sectors such as tourism and agriculture to achieve more inclusive growth;

- Creating greater levels of economic inclusion, including through addressing high levels of economic concentration;
- Addressing the weak job-creating capacity of the economy;
- Boosting education and skills development;
- Promoting greater beneficiation of raw materials; and
- Addressing racial, gender and geographical inequalities which hamper deeper economic growth and development.

2.3.13.2 Special Economic Zones and Industrial Parks

There are two SEZs in Limpopo:

- 1. Musina-Makhado: Designated SEZ located in Musina and Makhado LMs in Vhembe District. The focus of the SEZ is light industrial, agri-processing dry port, metallurgical and mineral beneficiation and possibly petrochemicals.
- 2. Tubatse: Proposed SEZ, focus on platinum-group metals (PGM) beneficiation ad mining input supplies.

The Industrial Parks Revitalisation Programme also has a footprint in Limpopo in the following areas:

- Nkowankowa in Greater Tzaneen LM (Mopani District)
- Seshego in Polokwane LM (Capricorn District)
- Thohoyandou in Thulamela LM (Vhembe District)

2.3.13.3 Industrial Policy Action Plan, 2018/19 - 2020/21

The principal objective of the Industrial Policy Action Plan (IPAP) is to achieve structural change, by encouraging the development, growth and increased competitiveness of the South African manufacturing (value added) sector. The sectoral focus areas are as follows (TheDti, 2018):

Sectoral Focus Areas 1:

- Automotives
- Clothing, textiles, leather and footwear
- Metal fabrication, capital and rail transport equipment
- Agro-processing
- Forestry, timber, paper, pulp and furniture
- Plastics
- Chemical, pharmaceuticals and cosmetics

Sector Focus Areas 2:

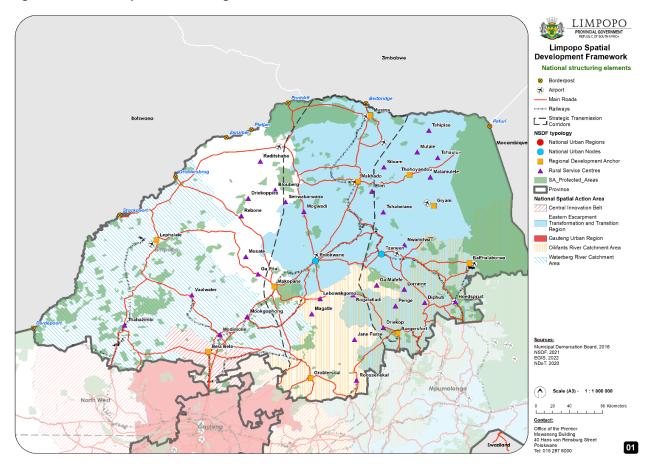
- Minerals beneficiation
- Green industries
- Business process services
- Marine manufacturing and associated services
- Aerospace and defence
- Electro-technical ad white goods industries

The spatial footprint and networks of relevant priority sectors should be considered in the LSDF.

2.3.14 Spatial Footprint: National Strategic Direction and Initiatives

The map below reflects national policy guidance in terms of spatial structuring elements:

Figure 24: National Spatial Structuring Elements



The map below provides an overview of national initiatives and programmes with a specific spatial footprint in Limpopo:

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Figure 25: National Programmes and Initiatives

2.3.15 Synthesis: Implications of National Strategic Direction

Issues arising from global, regional and national strategic direction:

- Alignment with the NSDF as the first PSDF to be undertaken since adoption of the NSDF:
 - Role of Limpopo nationally: increased population and urbanisation, national food security, economic diversification in the context of a just transition to low-carbon economy, protection and management of critical ecosystem services especially SWSAs, conservation and management of biodiversity (including role in national tourism)
 - Application of Rural-Regional Development Model, with implications for roles of settlements, defining settlement networks and critical linkages
 - Alignment of social service provision: NSDF proposals and government precincts, also related to settlement typology
 - Alignment of national programmes to NSDF logic principle of economic concentration in Rural Development Anchors (e.g. SEZs, Industrial Parks, agri hubs, government precincts)
- Alignment of PHSHDAs with provincial housing areas, district / local urban edges and principle of concentration / densification of Rural Development Anchors and the Regional-Rural Development Model
- Economic diversification through industrialisation: possible entry points to consider are green energy, agricultural production, support for redeveloped transport sector
- Move to rail: potential freight and passenger corridors
- Economic contribution and competing land uses: consider current contribution and long-term future role.
 Current significant current contribution of mining, coal-fired electricity vs protection of nationally

strategic water resources, air quality / reduced emission targets, high potential agricultural land in the context of accommodating growing population and increased urbanisation, role in national eco-tourism

Climate change mitigation and adaptation: spatial risks areas, implications and approaches for implementation including Ecosystem-based Adaptation.

2.4 **Inter-Provincial Alignment**

Limpopo Province borders on three South African Provinces, namely Gauteng Province, Mpumalanga Province and North West Province. The characteristics and notable spatial initiatives impacting Limpopo Province across the border are discussed below.

2.4.1 Gauteng Province

Only a very small portion of Limpopo Province borders on Gauteng Province, but this includes the significant North-South Regional Corridor (N1 national freeway and railway line), making it one of the Province's most strategic spatial features, most notably with regards to the movement of people and freight. This corridor plays a significant regional role, offering South Africa's landlocked northern neighbours including Zimbabwe, Zambia and the Democratic Republic of Congo (DRC) access to international markets through the port of Durban. The N1 corridor/ North-South Regional Corridor mainly transports fuel, spare parts and goods to Zimbabwe. According to the (Gauteng, 2015) the N1 corridor is experiencing severely limited capacity.

Salient points from the Gauteng Provincial Spatial Development Framework (GSDF), 2030 (2015)

The GSDF² provides for a polycentric city region structure. Strong emphasis is placed on densification in the form of concentrating future urban development within and along identified nodes and corridors, encouraging connectivity between these nodes, countering fragmentation, and promoting liveability by maximising access to economic and social opportunities for residents. The two instruments that form the foundation for the GSDF are 'spatial development coordination' and 'spatial targeting'. From a human settlements' perspective, Gauteng Province does not exert development pressure on Limpopo Province.

Notable initiatives planned in Gauteng Province emanating from the GSDF include:

- The planned Oliver Tambo SEZ/ Industrial Development Zone (IDZ) which aims to develop the land around the OR Tambo International Airport (ORTIA).
- The GSDF proposes new freight terminals, a ring freight rail and a freight bypass system to alleviate road congestion in Johannesburg including along sections of the N1 and N3 national freeways. The proposed ring freight rail alignment effectively links Mamelodi and Daveyton, passing around the far eastern outskirts of Tshwane and Ekurhuleni.
- The Province denotes an urban edge (compilation of municipal urban development boundaries) which limits the northward expansion of the City of Tshwane bordering on Limpopo and North West Provinces.
- The rural outskirts of the Province are reserved for agricultural activities and, in some instances, tourism.

In addition to the GSDF, a large-scale new project driven by the private sector should also be noted:

The Department of Science and Innovation (DSI) and the South African National Development Institute (SANEDI), in partnership with Anglo American, Bambili Energy, and ENGIE are proposing to develop a "Hydrogen Valley" / Green Corridor stretching from Anglo American's Mogalakwena Precious Metal Groups (PGMs) mine to Johannesburg and along the N3 to the south coast at Durban (approximately 835 kilometres). A feasibility study for this concept (published in 2021) identifies three hydrogen hubs – Johannesburg, extending to Rustenburg and Pretoria; Durban, encompassing the city itself and Richards Bay; and Limpopo Province centred around Mogalakwena mine.

² The GSDF was being reviewed at the time of writing (2022)

The Mogalakwena hub will be centred on a hydrogen production, storage and refuelling complex, incorporating the largest electrolyser in Africa and a solar plant to support the operation of Anglo's new 2MW hydrogen-battery hybrid haul trucks. Anglo American's nuGen™ Zero Emission Haulage Solution (ZEHS) provides a fully integrated green hydrogen system, consisting of a production, fuelling and haulage system, with green hydrogen to be produced at the mine site (Green Building South Africa, 2022) (ESI Africa, 2022).

2.4.2 Mpumalanga Province

The south-eastern extents of Limpopo Province borders Mpumalanga Province. This bordering region is characterised by low income rural residential settlement, including the Siyabuswa and KwaMhlanga urban complexes of the Nkangala District. The central bordering region is characterised by the eastern limb mining activity around Steelpoort, Burgersfort and Lydenburg/ Mashishing. Furthest east, the escarpment drops dramatically across both Provinces to the lush lowveld, and finally the Kruger National Park that straddles the provincial boundaries of Limpopo and Mpumalanga and forms the north-eastern border of South Africa. The two Provinces share many strategic features, including large-scale mineral extraction industries and national nature tourism anchors.

Strategic linkages predominantly linked to freight transport include:

- 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 includes a 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 Strategic Integrated Project (SIP) 1: Unlocking the northern mineral belt with Waterberg as the catalyst (also see section 2.3.14 for spatial footprint of SIPs).
- The Phalaborwa Richards Bay Rail Corridor connects the eastern parts of Limpopo, specifically Phalaborwa town, to Richards Bay port via Swaziland. The line carries magnetite and rock phosphate from Phalaborwa, as well as some agricultural products and fuel.
- Coal and chrome mined in Limpopo are transported to power stations and smelters respectively on the highveld via the R555 and N4 freeway.
- Platinum extracted in the eastern limb is also transported to Rustenburg via the R555 and N4 freeway.

Notable challenges shared between Limpopo and Mpumalanga Provinces:

- Limpopo Province shares the Olifants Water Management Area with Mpumalanga Province. According to the NSDF this catchment exhibits major water quality issues, as well as increasing pressure from the mining and agriculture sectors. The NSDF adds that considerable investment is needed to improve water quality and service delivery within the catchment. SIP 19d: Olifants River Water Resource Development Project (ORWRDP) Phase 2 is shared over the two Provinces and aims to provide bulk water to Limpopo. (DALRRD, National Spatial Development Framework, 2022)
- It appears there is northward development pressure on Limpopo Province in the region of Acornhoek.
- The daily commuting between the platinum and chrome fields in Limpopo and Mashishing in Mpumalanga, and the high freight volumes (predominantly chrome) on the R577/D212 en route to the R37, R36 and N4 freeway to Maputo, justifies upgrading of the R577/D212 road to a national road. A feasibility study in this regard has been concluded.
- The R573 Moloto corridor project has been in planning phase for a long time; the high volume of commuters and traffic accidents on this route section necessitates improved public transport access and commuter safety. The R573 Moloto road is managed by SANRAL and traverses the municipalities of Ephraim Mogale, Dr JS Moroka and Thembisile Hani LMs.
- According to the NSDF, there is a need to strengthen the Richards Bay coal rail freight corridor.

Salient points from the Mpumalanga Provincial Spatial Development Framework (MPSDF), 2019

The northern boundary of Mpumalanga Province, bordering on Limpopo, has largely been earmarked for tourism purposes, except for the mining and industrial activity belt at Mashishing. (Mpumalanga, 2019)

There are three major corridors in Mpumalanga: N4, N11, and N17/N2. The N4 corridor is one of the most important corridors for the Mpumalanga Province connecting to Mozambique, Gauteng Province and Botswana. The N4 acts as corridor for exports to Mozambique itself, as well as to international markets via one of the country's five ports. The N2/ N17 corridor links Gauteng with Richards Bay and Swaziland, provides an alternative route to Maputo and links up with the tourism initiatives within northern Swaziland and the Lebombo Tourism SDI, providing excellent regional and district accessibility. The N2/ N17 corridor is supported by the coal haulage line to Richards Bay which serves mainly the minerals and metals industry.

Route 36 and route R40 from Limpopo are highlighted as significant north-south corridors, linking Limpopo Province to the N4 corridor via Mashishing and Bushbuckridge respectively. Route R40 forms part of the Phalaborwa SDI (NSDF).

The MPSDF delineated a hierarchy of service nodes along the main movement network, which is intended as cues for crowding in public and private investment in economic and social infrastructure to encourage/strengthen the stimulation of critical mass. The highest order nodes in Mpumalanga Province are located along the N4 corridor namely eMalahleni and Mbombela.

Due to the proximity of Mashishing in Mpumalanga to the eastern limb mining activities and the general lack of nearby accommodation alternatives, many mine employees employed in Limpopo opt to reside in Mashishing and commute to work across the provincial border.

The rural residential area around Acornhoek has been earmarked as a 'rural diversity intervention area'. The MPSDF encourages the consolidation of settlements and the optimal provision of basic and social services in these areas.

Notable infrastructure projects and planned initiatives impacting on Limpopo Province include:

- The potential construction of a new bulk water scheme in the lowveld is being investigated. A feasibility study in this regard has been concluded.
- One of the SIP projects is namely to upgrade the N11 and R35 coal haulage corridors. This project is reportedly underway.
- There are plans to potentially establish a Mining and Metals Technology Park along the N4 national freeway between eMalahleni and Middelburg.
- An Agro-processing Technology Park has been proposed as part of the Nkomazi SEZ near Komatipoort.
- The proposed Moloto passenger rail

2.4.3 North West Province

Limpopo Province borders on North West Province, extending from the Botswana border at Madikwe game reserve to the N1 national freeway at Temba/ Hammanskraal (Gauteng). The area is largely characterised as rural, comprising intermittent ridges with little to no residential settlement. It is further characterised by a variety of mineral deposits, especially along the Dwarsberg ridge. This area has high environmental sensitivity according to the North West Spatial Development Framework, 2017 (North West, 2017). Intensive mining activity associated with the western limb characterises the landscape between Pilanesberg and Rustenburg, and from Zeerust to Rustenburg. Large parts of this mineral-rich region are state-owned and under custody of traditional authorities.

The belt of land in Limpopo Province bordering on North West Province comprises commercial farming activities and mining activities in the west and east respectively. The main linkages between the North West and Limpopo Provinces are route R510 to Rustenburg and route R511 to Brits, both linking to the N4 freeway – the east-west corridor between Botswana and Mozambique.

North West Province experiences the following challenges that potentially impact on Limpopo:

- Limpopo and North West Provinces share the Groot Marico and Crocodile water catchment areas. The Crocodile West system serves many domestic and industrial/ mining consumers. The two economic sectors with a competitive advantage in the North West Province, mining and agriculture, are both water intensive and pose risks to water quality and conservation.
- The North West border posts are reportedly not all sufficiently staffed, leading to challenges such as long waiting times. This pressure could lead to travellers and logistics companies preferring to make use of alternative border posts, such as in Limpopo Province, for the sake of speed.

Notable initiatives planned in North West Province that potentially impact Limpopo Province include:

- Phase 2A of the Mokolo Crocodile West Augmentation (MCWAP) project to provide bulk water to Lephalale. This project is also declared as SIP 19b
- The PHSHDA 11: Greater Northam in Limpopo Province and the Mokgalwaneng/ Spitskop PHSHDA in North West Province borders each other south-west of Northam. The Development plans for these two areas must be integrated across the provincial boundaries.
- The Bojanala SEZ, also known as the Platinum Valley SEZ, is intended to focus on mineral beneficiation of platinum group metals (PGM). The SEZ primarily targets PGM beneficiation including catalysts (automotive catalytic converters), electrical and electronics components, biomedical and pharmaceutical products (cancer treatment and micro implants), high-performance alloys (labware, optical equipment and turbine blades), fuel cells and jewellery.
- The R15million Vaalkop Dam project has been approved for implementation and will reportedly commence in the 2021/22 financial year.
- The Hydrogen Green Corridor stretching from Mogalakwena, is extended from the N1 freeway west along the N4 freeway, to link the Rustenburg platinum belt with the corridor.
- An agri-park is proposed at Makapanstad near the Limpopo border.

Salient points from the North West Provincial Spatial Development Framework (SDF), 2017

The North West Spatial Development Framework, 2017 promotes densification and consolidation of the urban footprint in general, spatial targeting at identified areas with inherent economic potential, and rural development. Urban development is mostly recommended to be consolidated in the eastern extents of the Province, termed the Eastern Development Belt. (North West, 2017)

The North West Provincial SDF recognises the N4 as a transnational corridor. One of the SDF proposals is namely a passenger railway from the Botswana border at Kopfontein to Zeerust; from there it splits westward towards Gauteng and south towards Vryburg and the Northern Cape.

2.4.4 Synthesis: Implications of Inter-Provincial Alignment

The following spatial features and planned initiatives are shared between Limpopo Province and its South African neighbouring Provinces, and have a bearing on the LSDF:

- Shared water management areas, with associated threats of over-use and water quality issues.
- Movement of people and goods. Freight transport includes road and rail routes predominantly to the south coast and the highveld. Poor maintenance of transport routes to export destinations impact on the agriculture and mining industry, In particular the routes through Mpumalanga Province.
- Commercial farming activities.
- Areas recommended for conservation and tourism, mostly due to its rich biodiversity and/or scenic
 value
- Mining and industrial activities, including Anglo American's proposed Hydrogen Valley/ Green Corridor
- Note, there is not really pressure for human settlement expansion across the borders, from either direction. The respective provincial SDFs encourage densification and consolidation, and the centre of

2.5 Provincial Strategic Direction

2.5.1 Limpopo Development Plan, 2020-2025

The Limpopo Development Plan (LDP) 2020-2025 is the socio-economic development blueprint for the Limpopo Province. It outlines the contribution of the Limpopo Province to the National Development Plan (NDP), and provides a framework for the strategic plans of provincial government departments and municipalities in the Province. The LSDF should build on and give spatial expression to the LDP 2020-2025 components, where possible and relevant. The LDP also creates a structure for the constructive participation of private-sector business, organised labour and citizens, towards the achievement of the provincial growth and development objectives. (Limpopo OTP, 2020)

The LDP 2020-2025 defines the provincial long-term vision as "Limpopo – Africa's New Pride. A resilient, vibrant, prosperous Province inspired by its diverse and creative people and its environment."

This inspiring vision is depicted by a roaring lion that represents a strong, independent and majestic Province that can lead the "lion pride" to a new prosperous future. It envisions the people of the Limpopo to be resilient and adaptable in order to be ready for the future Fourth Industrial Revolution (4IR) reality. It is by embracing its diverse population, and utilising this diversity, that the Province is strengthened. 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 the Province's rich heritage.

Figure 26: Limpopo Vision and Development Objectives, 2020-2025



The future state desired for the people of Limpopo is peaceful and prosperous and one that contributes toward an improved quality of life. This is envisioned to be achieved through the implementation of social and economic programmes that result in the achievement of the six provincial development objectives shown in Figure 26.

The LDP provides an entrenched focus on mining, agriculture, manufacturing and tourism sectors. The plan was developed during the COVID-19 pandemic, at which point the Province made the decision to recover from COVID-19 by enhancing 4IR technology and practices in moving the Province forward into the future, and to focus on industrialisation and value-adding of the agriculture and mining sector.

Nine development priorities were defined for the Province, as illustrated in Figure 27.

Figure 27: Limpopo Development Plan, 2020-2025: Development Priorities



(Limpopo OTP, 2020)

Where relevant to the LSDF review, the strategic responses to achieve the provincial development priorities are noted below:



Priority 1:

Transform the public service for effective and efficient service delivery

- Institutionalise and implement the District Development Model 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.
- Improve the impact of public expenditure through spatial targeting by means of the following key activities:
 - Ensure that departmental budgets are allocated to identified provincial priority projects and spatial targeting areas
 - In support of integrated planning and implementation that is aligned with the LDP 2020-2025, the provincial strategies and plans need to give further effect to the LDP and should be aligned with the spatial targeting approach outlined in the Provincial Spatial Development Framework and Priority Human Settlement and Housing Development Areas (PHSHDAs) (Spatial Transformation).
 - Increase ease of access to provincial plans, frameworks, and strategies
 - Adopt the LSDF principles in departmental decision-making frameworks and budgets, and ensure that it is cascaded to district and municipal plans and frameworks.
 - Finalise the Limpopo Spatial Planning and Land Use Management Bill.
 - 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.



Priority 3:

Transformation and modernisation of the provincial economy:

- 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.
- Implementation of the Industrialisation Agenda that promotes economic growth, manufacturing, value addition (beneficiation and agro-processing), and technological innovation.
- Transition to an environmentally-sustainable, climate change-resilient, low-carbon economy and just society;
- Having 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;
- Grow the provincial agricultural sector; Key projects to achieve this growth are:
 - Establishment of a Marula Industrial Industry Hub, with Phalaborwa as the centre and with interdistrict 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
 - Enhancing ongoing efforts involving Conservation Agriculture
- Support growth of the tourism sector through activities such as:
 - An improved road network to provincial heritage, cultural and conservation assets;
 - The commercialisation of state-owned properties, especially in nature reserves;
 - Affordable air access from major destinations such as OR Tambo international Airport, should be a
 priority; Consideration should also be given to opening airlift routes between destinations within
 Limpopo with neighbouring Provinces and with SADC member countries.
- Support growth of the mining and beneficiation sector, including increasingly sustainable practices by working productively with private sector roleplayers; Other activities relevant to the LSDF are:
 - The promotion of mineral beneficiation is a critical focus area for the Musina-Makhado SEZ and Tubatse Platinum Industrial Hub;
 - 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.);
 - Support and facilitate the formalisation of small-scale mining operations; and
 - Establish useful partnerships; provide support to mining companies where required; and provide inputs and co-operate in the drafting of Social and Labour Plans (SLPs) and Housing and Living Conditions Plans.

- The national and provincial imperative is to industrialise and diversify the economy. Value chain development in the agriculture and mining sectors offer multiple opportunities, including but not limited to, mineral beneficiation and agro-processing. These industrial initiatives is proposed in the LDP to be spatially consolidated around existing cities and towns, as well as in the Musina-Makhado SEZ, Fetakgomo-Tubatse Platinum Industrial Hub, and the Mining Input Supply Hub of the platinum complex;
- The beneficiation of all the sectors needs to be increased, as well as the expansion of existing industries. Focused initiatives of spatial significance for the LSDF are:
 - 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);
 - Establish agri-parks and agro-processing pharmaceutical hub;
 - Logistics hub in Lephalale; transport and logistics hub in Polokwane; and cross-border free trade,
 e.g Mozambique, Botswana, Zimbabwe.
- Increase the Green Economy by establishing district-based waste management (recycling through buy-back) centres; Independent power production; and establishment of production facilities through industrial symbiosis programme;
- Support the establishment of new independent power generation facilities;
- Support the construction sector and improve investor confidence by publishing projected infrastructure investments/ planned projects (be transparent and create certainty);
- Improve waste management service delivery through partnerships and implementation of the municipal Integrated Waste Management Plans; aggressively ramp up recycling and establish centralised recycling hubs for metals and electronics (industrial streams) to achieve critical mass (select a suitable location, taking into consideration the necessary environmental legislation measures);
- Reduce waste by supporting the capitalisation of economic opportunities related to household and other waste;
- Positioning the Limpopo Province for 4IR to establish an innovation-driven economy. Key strategic considerations to leapfrog and transition from being a consumer, to becoming an active participant in the digital economy are:
 - 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;
 - Establish a Science and Technology Park in Polokwane to support local innovation;
 - Apply 4IR in the Musina-Makhado SEZ, as well as in the smart cities that are envisaged;
 - 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.



Priority 4:

Provision of quality education and a quality health care system

- Improve education infrastructure: Building and/or refurbishment of schools, community libraries, providing water and sanitation in schools (adhere to school infrastructure norms) and supporting the Schools Consolidation Programme. The principle of physical consolidation of well-functioning basic services at strategic and central locations is strongly supported in the LDP (termed spatial targeting), with the aim of maximising access to as many residents as possible;
- Align education with industry needs: 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. This intervention aligns with the positioning of the Province for digital innovation:
- Encourage lifelong learning by increasing the number of institutions of higher learning (TVET colleges);
 and
- Revitalisation of health facilities, and improve access to and quality of health facilities/services: Build
 and refurbish health infrastructure for effective service delivery; refurbish and rehabilitate health
 infrastructure.



Priority 5:

Integrated and sustainable socio-economic infrastructure development

- The LDP states that strategic infrastructure development must be used to unlock private infrastructure investment. Further, 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 key strategic projects for the Province in terms of infrastructure development, are listed as follow:
 - 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. 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 (the specific project are not mentioned);
 - Implementation of the Limpopo Integrated Infrastructure Master Plan(LIIMP) and DDM: The immediate focus is to institutionalise both the LIIMP and the DDM in sector departments;
 - Construction of Limpopo Academic Hospital;
 - Relocation of legislative centre from Lebowakgomo to Polokwane;
 - Construction of the Provincial State Theatre;
 - Relocation of Sekhukhune District Office from Lebowakgomo to Jane Furse;
 - Implementation of electrification programme by ESKOM;
 - Water and sanitation infrastructure (DWS); and
 - Improved road infrastructure (LDPWR&I/ RAL).
- The LDP also emphasise the planning, scheduling and implementation of strategic and preventative maintenance of infrastructure in line with the Limpopo Water Master Plan. A number of high priority water treatment works and wastewater treatment works are listed in the LDP for planned refurbishment.
- Economic recovery depends on a number of provincial priority bulk water infrastructure projects for which the required feasibility, project preparation and implementation should be undertaken:
 - SIP 19b: Phase 2A of the Mokolo Crocodile West Augmentation (MCWAP) project, Lephalale;
 - SIP 19d: Olifants River Water Resource Development Project (ORWRDP) Phase 2, FetakgomoTubatse;
 - SIP 19h: Groot Letaba River Water Development Project Nwamitwa Dam, Greater Tzaneen;
 - SIP 18: Ebenezer Olifants (Polokwane Regional Supply);
 - Bulk water supply to Steelpoort area;
 - Water provision to Musina-Makhado Special Economic Zone;
 - Upgrade Nandoni Water Treatment Works;
 - Ga Malekana Water Treatment Works 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;

- Mametja Sekororo Phase 1; and
- Mooihoek, Levhubu bulk water supply.
- There are two priority sanitation projects to be implemented in the Province:
 - New Regional Wastewater Treatment Works for Polokwane; and
 - Northam Wastewater Treatment Facility.
- Priority roads projects listed in the LDP and classified as SIPs are:
 - 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; and
 - Improvement of the R573 from Siyabuswa to Marble Hall.
- A number of key road projects identified in the Freight Databank of 2012 were also listed in the LDP. In addition, Transnet's long-term planning framework, 2017 identified various freight projects to be implemented:
 - 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; and
 - The new alignment from Waterberg to Ermelo will be installed with 25kV alternating current traction.
- Other crucial transport projects planned in the Province are:
 - Polokwane Strategic Logistics Hub Initiative: 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;
 - Upgrade of the Moloto Road (linking Gauteng, Limpopo and Mpumalanga Provinces) to improve road safety conditions;
 - The construction of a new coal line to unlock coal deposits in the Waterberg;
 - Rail infrastructure linking Growth Points. With regard to passenger rail services, the following two projects are envisaged in the LDP:
 - Regional passenger rail system: Moloto Corridor
 - Pretoria-Polokwane high-speed rail
- The National Airports Development Plan also notes the proposal to develop Polokwane International Airport into a logistical hub for passenger and freight, thereby strengthening the role of Gateway Airport. 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



Priority 6:

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

 Increase the number of schools implementing schools sport programmes by providing sport facilities at schools and in communities



Priority

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Spatial transformation for integrated socio-economic development, including:

- The LDP emphasise the policy imperatives as derived from the NDP and MTSF that need to be realised through the efforts implemented in the Province which are:
 - 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
- Priority 7 will be achieved through targeted public investment: Public investment will be consolidated, and targeted at the following identified spatial targeting areas in the Province:
 - The declared Priority Human Settlements and Housing Development Areas (PHSHDAs) in the Province are the priority areas for infrastructure investment and asset poverty alleviation in order to achieve spatial transformation in these delineated areas of national and provincial nodes. The eleven promulgated PHSHDAs are (see section 2.3.8.2):
 - Polokwane CBD and surrounds; Polokwane R71 Corridor; Greater Giyani; Nkowankowa Node;
 Tzaneen Core; FetakgomoTubatse Development Area; Musina-Makhado SEZ; Musina Town;
 Thohoyandou Node; Lephalale/Marapong and Greater Northam
 - The Revitalisation of Distressed Mining Communities is prioritised to five municipalities, also known as the Distressed Mining Town Municipalities:
 - FetakgomoTubatse Municipality; Elias Motsoaledi Municipality; Lephalale Municipality;
 Thabazimbi Municipality and 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) are prioritised for co-ordinated and high-priority development support.
 - From the ten provincial growth points, the Executive Council (EXCO) further prioritised immediate attention to the Musina-Makhado Corridor, the FetakgomoTubatse, Lephalale, Polokwane and Greater Tzaneen Municipalities. Public housing and infrastructure development programmes will be prioritised in these municipalities to unlock and support the local development potential.
- The Province will partner with national and local government, as well as with the private sector, to ensure a more compact urban growth, creating stronger nodes, while preserving agricultural land, which will yield environmental, social, and most importantly, economic benefits. Spatial transformation will be achieved through improved integrated settlement development and by linking job opportunities and housing opportunities. Several interventions are mentioned in the LDP to achieve integrated and sustainable human settlements.

7:

- 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.
- Integrated and smart initiatives for rapid urbanisation: The nodes of Polokwane, Tzaneen, Musina and Lephalale are proposed to be prioritised as smart cities in the Province (be treated as experiments in 4IR implementation).
- Commercialisation of provincial nature reserves feasibility studies are underway at Masebe,
 Lekgalameetse and Rust De Winter nature reserves



Priority 9:

Economic transformation and job creation through regional integration

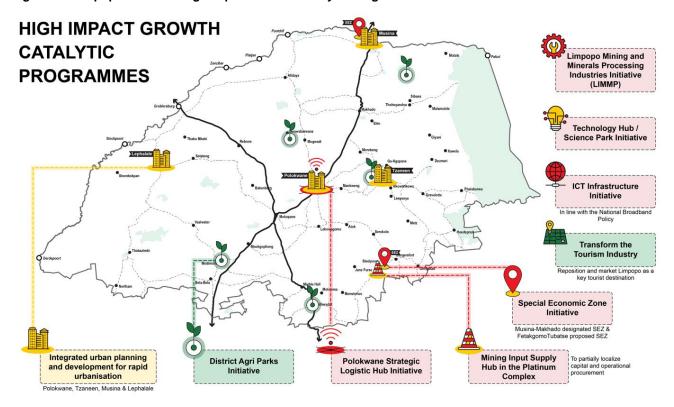
- Since the Limpopo Province is the gateway to Africa, the Province is responsible for, and will benefit from, keeping regional movement networks/ infrastructure in good order (road and rail) to facilitate the movement of goods and people.
- There exists potential to grow the tourism, logistics, agriculture and manufacturing sectors of the region through greater inter-connectedness; There is also a need to explore and capitalise on potential regional value-chains.
- The 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.

The LDP provides clear direction in terms of the review of the LSDF in that it should embed spatial targeting and spatial transformation, integrated planning across all spheres, but more importantly, it should outline how to ease access to the plan and entrench the principles put forward in the LSDF. It further notes the strategic initiatives and interventions that are prioritised and proposed by the Province for the realisation of the vision.

2.5.1.1 High Impact Growth Catalytic Programmes

From the various strategic initiatives planned in the Province, nine were defined as the High Impact Growth Catalytic Programmes for Limpopo Province. The programmes are illustrated in Figure 28 and is a clear summary of the key initiatives to drive economic diversification and growth in the Province.

Figure 28: Limpopo Province High Impact Growth Catalytic Programmes



2.5.1.2 Provincial Nodal Strategy and Growth Point Programme

Following the adoption of the LSDF, 2016, the Provincial Growth Point Programme was initiated. The programme, also referred to as the provincial nodal strategy, applied the spatial nodal hierarchy in the allocation of public investment. The 10 provincial growth points and the focus of investment are listed below:

- Musina: Metallurgical Cluster, Coal & Diamond, Logistics -designated as a Special Economic Zone
- Makhado: designated as a Special Economic Zone
- FetakgomoTubatse: Precious Group Metals (PGM), proposed as a Special Economic Zone
- Polokwane: Logistics and Services Hub, developed metro status programme
- Tzaneen: Agriculture and Tourism
- Phalaborwa: Mining, Tourism and Agriculture
- Elias Motsoaledi: Agriculture
- Lephalale: Energy (Coal & Gas), developed Green City Strategy
- Mogalakwena: Mining (PGM), Agriculture and Tourism
- Thabazimbi: Mining, Agriculture and Tourism

However, the Province has seen little success over the past ten years in implementing the growth point programme due to lack of project bankability and dedicated funding. As a result, the LDP implementation framework indicated that five of the ten provincial growth points – one municipality per district – will be prioritised during the current LDP term (2020-2025). The five priority provincial growth points for the current administration are:

- Lephalale in the Waterberg District
- Polokwane in the Capricorn District
- Musina-Makhado Corridor in the Vhembe District
- FetakgomoTubatse in the Sekhukhune District
- Tzaneen in the Mopani District

The Office of the Premier (OTP) in conjunction with Provincial Treasury and COGHSTA should develop funding mechanism of programmes and projects for the priority growth point municipalities. Further, the OTP and COGHSTA in partnership with Growth Point municipalities must develop investment books for growth nodal points in each municipality incorporating and/or in alignment with the PHSHDA Development Plans directed in the NDP Implementation Plan and MTSF.

2.5.2 Limpopo Provincial Land Transport Framework, 2016

The LSDF, 2016 incorporated the Limpopo Provincial Land Transport Framework, 2016 in its revision. Although the framework is still in place, it is noted that it is currently under review; Updated policy directives and recommendations will be included in the LSDF review process as soon as the information becomes available. (Limpopo Department of Roads and Transport, 2016)

2.5.3 Limpopo Multi-Year Human Settlements Development Plan, 2019-2024

The Limpopo Development Plan 2020-2025 incorporated the recommendations from the Limpopo Multi-Year Human Settlements Development Plan (MYHSDP) 2019-2024 in its priorities and strategic responses, especially the recommendations of spatially targeted public investment in selected focus areas and creation of integrated and sustainable human settlements. A summary of the key findings and recommendations from the MYHSDP is provided below, which are key inputs to the LSDF review. (Limpopo CoGHSTA, 2020)

2.5.3.1 Notable findings

An analysis of the population growth statistics indicated that the Province is de-urbanising, contrary to the rest of the country. As a percentage of the total provincial population, the urban population decreased slightly from 17.9% in 2011 to 17.5% in 2016, and the population residing on traditional land increased from 77.7% to 79.3% over the same period. The low proportion of urban residents, and the growth trends favouring rural population growth is an anomaly that must be taken into account in spatial planning and service delivery.

The highest population growth was experienced in Musina (Vhembe District), Polokwane (Capricorn District), and Bela-Bela, Thabazimbi and Modimolle-Mookgophong (Waterberg District).

The ten municipalities in the Province that experienced a decrease in urban population are Lepelle-Nkumpi and Blouberg (Capricorn District); Thulamela; Makhado and Collins Chabane (Vhembe District); Greater Tzaneen; Greater Letaba and Maruleng (Mopani District); and Elias Motsoaledi and Ephraim Mogale (Sekhukhune District).

2.5.3.2 Recommendation: Spatial Targeting

The MYHSDP makes a unique proposal, namely to align human settlements development with other national and provincial initiatives related to spatial targeting, consolidation and prioritised investment for asset poverty alleviation. The resultant combined areas proposed as priority investment destinations are depicted in Figure 29.

SUPPRINCE GROWN Point (SEZ)

Provincial Grown Point (SEZ)

Provinc

Figure 29: Limpopo Spatial Targeting Areas According to the MYHSDP

(Limpopo CoGHSTA, 2020)

The elements taken into consideration include the National Department of Human Settlements' Priority Human Settlements and Housing Development Areas (PHSHDAs) promulgated on 15 May 2020. A set of priority programmes is identified to be implemented within these PHSHDAs, namely Integrated Residential Development Programme (IRDP), social housing, revitalisation of distressed mining communities programme, Enhanced Peoples Housing Process (EPHP), informal settlement upgrading programme, and Finance-linked Individual Subsidy Programme (FLISP).

"The PHSHDAs become the highest priority spatial targeting areas to be implemented at a national space".

The Province previously consolidated all LM Spatial Development Framework (SDF) priority housing development areas as a form of locally informed strategic planning. However, the local priority areas were determined prior to promulgation of the above PHSHDAs. There is, in other words, a need to redefine the prioritised expansion areas to align with the new national directives and associated funding. The MYHSDP makes recommendations in this regard, which should be taken into consideration in the LSDF review, and which will in time cascade to district and local housing sector plans and programmes. Note that PHSHDAs were promulgated in all growth points in the Province except Elias Motsoaledi, Mogalakwena and Ba-Phalaborwa LMs.

Other elements taken into account in the MYHSDP spatial targeting rationale includes the five mining town municipalities namely Lephalale, Thabazimbi, Mogalakwena, Elias Motsoaledi and FetakgomoTubatse; the two prioritised SEZs of Musina-Makhado and ³Tubatse; the NSDF, 2019 draft eastern transformation corridor; and the hierarchy of nodes and growth points defined in the NSDF and LSDF 2016.

³ The Tubatse SEZ has not been licenced or promulgated yet. The processes required to gazette this SEZ are underway. According to the Limpopo Development Plan 2020-2025, the emphasis for the next five years is on the feasibility to establish Tubatse Industrial Hub. The Tubatse SEZ/ Industrial Hub will include ".. heavy industrial activities (platinum

The prioritisation model for the allocation of Human Settlements Development Grant funding added a further layer by prioritising the areas with highest development pressure.

The national policy directives provide a clear focus away from housing top structure development towards enabling infrastructure such as bulk infrastructure and service stands, and creation of housing opportunities that enable tenure security and ownership, therefore a shift towards urban investment in housing opportunities.

The MYHSDP lists land parcels that were acquired during the previous term, and are now in the pipeline for development readiness and future housing development. It promotes fast-tracking land assembly, including release of State-owned land and buildings for housing purposes (in support of spatial transformation), and providing support to selected LMs in performing their housing accreditation function.

The MYHSDP provides direction on and makes recommendations for effective delivery of FLISP projects, affordable rental housing (CRUs and social housing) projects, rural settlements and IRDP projects, Zenzeleni/ Enhanced Peoples Housing Process (EPHP), informal settlement upgrading projects, title deed restoration projects. It provides comprehensive information about the provincial pipeline of human settlements projects, inclusive of the informal settlements upgrading pipeline (Annexure F to the MYHSDP).

Two national human settlement catalytic projects are approved and underway namely:

- Joe Slovo Integrated Human Settlements (Altoostyd) in Lephalale together with Marapong CRU
- Bendor Extension 100 integrated human settlements in Polokwane

In addition, the provincial priority housing projects are:

- Makgathoville integrated human settlements (Polokwane Extension 121 and 86), Polokwane
- Annadale social housing, Polokwane
- Ivypark Extension 35 social housing, Polokwane
- Mogalakwena Extension 20, integrated human settlements, Mokopane
- Warmbaths Extension 25, Bela Bela

The rationale of spatial targeting and consolidation of infrastructure investment, and the challenges facing implementation are important considerations for the LSDF review.

2.5.4 Limpopo Revitalization of Agriculture and Agro-processing Value Chain Plan, 2021

The goal of the Limpopo Revitalization of Agriculture and Aggro-processing Value Chain (RAAVC) Plan is "an increased agricultural production that should increase jobs, improve food security and rural livelihoods, job creation, foreign exchange earnings through increased exports as well as overall contribution to the provincial socio-economic recovery" (Limpopo DARD, 2022).

The strategic objectives and key intervention areas of the RAAVC are summarised in the table below (Limpopo DARD, 2022):

smelter, base-metal refinery, hydrogen fuel cells, catalytic converters, iron and steel furnaces, vanadium plant and ferrochrome plant etc.), medium industrial activities, light industrial activities, logistics hub, intermodal terminal, waste-water treatment works, and other related activities...". (Source: GIBB; Limpopo Economic Development Agency (LEDA/EIA2014/15-10), June 2017: "Strategic Environmental Assessment, Draft Report for Tubatse Special Economic Zone, Revision 1, 19 June 2017)".

Table 5: RAAVC Objectives and Interventions

Strategic Objective	Key Intervention Areas
Increase production through revitalisation and expansion of key commodity industries	 Revitalisation of Smallholder Irrigation Schemes Revitalisation of underutilized land – land reform farms and land in areas under Traditional Authorities. Production expansion of high value agricultural commodities. Green fields developments
Ensure sector transformation through promotion and support of black producers in key commodity industries (including women, youth, people with disabilities and military veterans)	 Increased participation of black producers in the production of high value agricultural commodities Commercialization of black producers in key commodity industries
Increase the participation of black producers in the domestic and export markets	 Linking black producers with markets (domestic and export) Provision of market infrastructure support Capacity building to increase access to formal markets, through GAP certification and skills development
Broaden and increase participation of black producers in the agricultural value chain	 Provide support for agro-processing development initiatives Provide infrastructure support for value-adding Intensify support for integrated value chain development through farmer production support units and agri-hubs towards agri-parks development

The following projects have been identified for production expansion (Limpopo DARD, 2022):

Figure 30: Agriculture Projects: Production Expansion

Project	Commodity	District	Proposed Funding Model	Extent (Ha)
HORTICULTURE: FRUIT I	NDUSTRY	1		
Makgoba Fruits	Avocado	Mopani	Commercial partner +DFI + Govt	150
Afrupro	Avocado	Mopani	Commercial partner +DFI + Govt	400
Morebene	Avocado	Mopani	Commercial partner +DFI + Govt	100
Tshakhuma CPA	Avocado	Vhembe	Commercial partner +DFI + Govt	700
Liafukhada –Sub Trop Development Plan	Avocado	Vhembe	Subtrop +SAAGA+ Govt	100
Sub total				1650
Estimated jobs - 2600				
Venmac	Macadamia	Vhembe	Commercial partner +DFI + Govt	1500
Tshivhase Macadamia	Macadamia	Vhembe	Commercial partner +DFI + Govt	500
Tshakhuma CPA	Macadamia	Vhembe	Commercial partner +DFI + Govt	200
Matshikiri Macadamia	Macadamia	Vhembe	Commercial partner +DFI + Govt	384
SAMAC	Macadamia	Vhembe	SAAMAC+ Govt	116
Transformation				
Sub total				2700
Estimated jobs =2393				
Zebediela Citrus	Citrus	Capricorn	Commercial partner +DFI + Govt	700
Limburg Citrus	Citrus	Waterberg	Commercial partner +DFI + Govt	1000
Mhinga -Xikundu	Citrus	Vhembe	Commercial partner +DFI + Govt	200
Boskop Citrus	Citrus	Mopani	Commercial partner +DFI + Govt	800
Letaba Ranch	Citrus	Mopani	Commercial partner +DFI + Govt	400
		Mopani, Vhembe &	CGADC + Govt	
CGD Transformation	Citrus	Capricorn		500
Sub total				2700
Total estimated jobs -	2700			

HORTICULTURE: VEGETA	BLE INDUSTRY	(
Potato Belt Development	Potato	Capricorn	Potatoes SA + Govt	500
HTX Tomato Production	Tomato	All District	Farmers and Govt Grant	3000
Pepperdew Project	Pepperdew	All	Grower contract model + Govt	100
Paprika	Paprika	All	Grower contract model + DFI + Govt	100
Sub total 3700				
Estimated jobs - 3000	1			
FIELD CROPS: OILSEEDS	AND COTTON			
Cotton production expansion – Black producer development	Cotton	Sekhukhune and Vhembe	Cotton SA + Govt Grant	1000
Soya bean production for processing market	Soya Bean	Sekhukhune and Waterberg	Grower Contract and Govt Grant	1500
Sub Total				2500
Estimated Jobs =1000				

Although these projects occur at a local scale, their product focus should be taken into account as a guiding factor in the LDF

2.5.5 Limpopo Industrial Master Plan, 2020-2030

The Limpopo Industrial Masterplan (LIMP), 2020-2030, contains very specific spatially focussed economic growth proposals. It recognises the Growth Points and supports the following industrial clusters to be implemented "in pursuit of increasing manufacturing activities":

Table 6: LIMP Industrial Clusters for Growth Points

Growth Point	Industrial Cluster/s
Across all Districts	Tourism, Agribusiness and Meat Clusters
Polokwane	Logistics Cluster e.g. Airport, Inter-Nodal Hub etc.
Musina – Makhado Corridor	Logistics, Diamond Mining, Horticulture, Forestry, Coal and Metallurgical Clusters
Tzaneen	Horticulture and Forestry Cluster
Ba-Phalaborwa	Copper and Magnetite Cluster
Tubatse	Platinum and Chrome (PGM) Cluster
Elias Motsoaledi	Agribusiness & Mining related Industries
Lephalale	Coal and Energy Cluster
Mogalakwena	Platinum Cluster
Thabazimbi	Platinum Cluster

In support of the above, value chains were developed from each cluster. Opportunities for businesses to develop in particular industries are identified, focusing on either forward or backward linkages. The following projects are proposed in summary (Limpopo Provincial Government, 2020):

Table 7: LIMP - Catalytic Projects

Mega Industrialisation	Agro-Industrialisation	Public-Private Partnerships: Mega LED Projects
 Musina-Makhado SEZ Tubatse SEZ Industrial Parks (Nkowankowa Industrial Parks (Seshego) Industrial Parks (Thohoyandou) Limpopo Science and Technology Parks Limpopo High Speed Train Commercialisation of provincial nature reserves Waste Management and Green Economy-Establishment of District Recycling Centres and Industrial Symbiosis 	 Venmac: 1500ha Macadamia orchard in Vhembe and pack house Makgoba Fruits: greenfield of 100 ha in Mopani Zebediela Citrus: Refurbishment of irrigation and electrical infrastructure Limburg citrus: 500 citrus orchards and pack house Tshakuma CPA: expansion of Macadamia orchards by 200 ha Tshivhase Macadamia: Macadamia orchards on 500ha Afrupro: 400ha of avos on community land Boskop: Re-development of the defunct restituted farm to re-establish 350 ha planted with a combination of high value citrus fruits, with a pack house. Morebene: 300ha of avos on community taking 51% share Potato belt development: 500ha potato development linked with Tala Foods Production of tomato for Norjax Canning: 2500ha tomato production linked to Norjax Canning Cotton Production: 1000ha cotton production to broaden black producer participation Soybean Production: 1500ha Soybean production: 1500ha Soybean production throughout grower partnership Lebowakgomo Poultry Abattoir: Operationalisation of Lebowakgomo Poultry Abattoir 	 Lephalale Logistics Hub in Lephalale Agro-processing Pharmaceutical Hub Transport and Logistics Hub in Polokwane

In addition to the mega LED Projects, industrialisation programmes per sector are also proposed in the form of public-private partnerships to revitalise the manufacturing sector. These programmes will focus on (Limpopo Provincial Government, 2020):

- Mining and Beneficiation
- Agro Industrialisation
- Construction and building materials
- Furniture
- Knowledge-Driven economy and ICT

Green Economy

For the success of the proposals, certain critical success factors are recognised (Limpopo Provincial Government, 2020):

- Water -Water deficit to be addressed by management interventions and infrastructure developments:
- Energy no specific proposals, call for implementation of Integrated Resource Plan.
- Skills "... there is a need for the province to consistently develop programmes to increase both vocational and technical skills in order to supply the labour market. Furthermore, the province must ensure that the Skills Academy is established and functional in the short term."
- Investment One Stop Shop Center to aid investment facilitation
- Investment Incentives
- Project Preparation and Development Fund
- Local Economic Development

The economic proposals of the new LIMP, including its Implementation and Institutional Framework, has a very specific spatial footprint that must be considered in the preparation of the revised LSDF.

2.5.6 Limpopo Integrated Infrastructure Master Plan, 2017

The Limpopo Integrated Infrastructure Master Plan (LIIMP) was concluded in 2017 (Limpopo, 2017). The following provides an overview of the strategic goals or the intention of the LIIMP:

- To guide strategic infrastructure integration and prioritisation planning in the Province, including institutional support thereof;
- To provide a strategic framework to promote alignment with National Development Plan (NDP), Limpopo Development Plan (LDP) priorities, and LSDF growth points, in order to unlock the development potential of Limpopo in a sustainable manner, including: National SIPs: 1, 6, 7, 8, 11, 17, 18.
- To promote public sector institutionalised best practice infrastructure planning, delivery and reporting, in compliance with National Treasury Infrastructure Delivery Management System (IDMS) Framework;
- To promote optimum cross-sectorial infrastructure planning and implementation within the public and private sector to achieve maximum social and economic benefit;
- To provide a prioritisation decision-making framework for infrastructure planning and implementation
 and risk review in support of socio-economic priorities across the Province, including development and
 ongoing maintenance of a Provincial Geographic Information System (GIS) in support of the decisionmaking framework and implementation risk review; and
- To provide a framework for the monitoring and support of public and private sector Catalytic/ APEX infrastructure projects, as well as District and Municipal scale "catalytic" projects.

The LIIMP recognises the following growth points, from the former LDP and LSDF, and assigned its own nodal hierarchy based on population and economy size. The newly assigned hierarchy is provided in brackets:

- Polokwane LM (primary)
- Makhado LM (primary)
- Thabazimbi LM (primary)
- Greater Tubatse LM (secondary)
- Elias Motsoaledi LM (secondary)
- Greater Tzaneen LM (secondary)
- Lephalale LM (secondary)

- Ba-Phalaborwa LM (secondary)
- Mogalakwena LM (secondary)
- Greater Giyani LM (secondary)
- Musina LM (tertiary)
- Bela-Bela LM (tertiary)
- Mookgopong LM (tertiary)
- Modimolle LM (tertiary)

The LIIMP supports the nodal of spatial targeting by encouraging: "Identified growth points should be stimulated by amongst others, providing a higher level of service infrastructure, which will ensure that appropriate services are available for potential business and service/light industrial concerns. The higher level of services, relative to other settlements in the area will also attract residential development to these growth points, with the implication that certain threshold values in population be reached, to provide for higher levels of social, physical, institutional and economic services" (LIIMP, p71).

The Plan provides population growth projections for 2027, as indication for residential and infrastructure demand across the respective LMs.

Energy

The 2016-2025 development plan for Limpopo Province is focused on the following four initiatives:

- 1. Additional transformer capacity (to accommodate load growth and provide firm capacity);
- 2. Extending 400kV and 275kV networks (to accommodate load growth);
- 3. Integrating Medupi power station (transferring generated power nationally); and
- 4. Establishing the 765kV network (in alignment with national grid strategy).

The listed projects will result in the future network depicted below in 2025.

Botswana

Mozambique

Mozambiq

Figure 31: Future Limpopo Province Network Diagram

(Limpopo, 2017)

The only area not covered by the proposals above is the southern region around Bela-Bela.

Transport

The LIIMP supports the following principles in terms of transportation in the Province:

- All communities, urban and rural, have a right of access to economic nodes providing access to goods and public services such as education and healthcare, as well as economic opportunities;
- It is government's goal to provide public transport services, including non-motorised transport infrastructure;
- Freight rail is strongly supported to alleviate pressure on road infrastructure, even though the Plan notes that rail is a national competency and not provincial; and
- The Plan supports spatial targeting at identified nodal points

The LIMMP further provides a summary of projects as per the Limpopo Land Transport Plan, 2016. This Plan is currently under review, hence the project list will soon be updated.

ICT

The most significant challenge that Limpopo face is that the majority (89%) of the Province is rural based, therefore most citizens have irregular or limited internet access. Even though South Africa now boasts almost 100% mobile phone penetration, internet access within Limpopo via mobile phones is limited to just over a third of the population. It is understood that there are plans to roll out ICT infrastructure at scale across the Province, as also reported in the LDP 2020-2025.

sters ⊕Eskom

Water and Sanitation

The LIIMP offers updated information about the extent of existing bulk water and sanitation infrastructure in each District. Planned projects for each district are mapped spatially, though the maps are not supported by a list of project names.

The Plan highlights the important role of water conservation and water demand management.

Social infrastructure

The LIIMP notes that it is necessary to ensure that electricity, water and sanitation services are provided to ensure a safe and functional learning environment, and to abide by the norms and standards developed by the Department of Education.

The Plan analyses the provision and distribution of social infrastructure namely education and health facilities against projected population demand, followed by an assessment of the degree of engineering service provision to these facilities, including energy, roads, ICT, as well as water and sanitation services.

The LIIMP advises that the focus should not only be on the provision of new social facilities, but also on maintenance of existing facilities, supported by a general approach of spatial targeting aligned with the growth points/ identified nodes. It also supports the use of alternatives such as boreholes and solar energy, where circumstances allow and/or necessitate.

A list of planned education and health projects are provided for each District, and mapped spatially.

Human Settlements

The LIIMP provides an overview and assessment of human settlement projects in the Province. The provincial human settlements master plan provides strategic direction in this regard, coupled with updated population growth projections and project status updates.

Economic Development, Environment and Tourism

The Plan notes the projects by the Limpopo Department of Economic Development, Environment and Tourism (LEDET) to boost the provincial tourism sector.

Sports, Arts and Culture

The projects planned by the Limpopo Department of Sport, Arts and Culture (DSAC) are listed, comprising predominantly libraries and sports facilities.

Agriculture

The LIIMP notes the need for a high-tech industrial cargo hub, linking road, rail and air at Polokwane International Airport, with appropriate infrastructure, such as phyto-sanitory facilities, bulk storage facilities, processing facilities, nurseries, hatcheries, quarantine facilities and refrigeration facilities etc. to enhance agricultural trade to and from Limpopo into Africa and beyond.

Mining

This section notes the importance of developing SIP1 – Unlocking the northern mineral belt with Waterberg as the catalyst.

2.5.7 Limpopo Green Economy Plan, 2013

The Limpopo Green Economy Plan, completed in 2013, centres on local production and consumption, efficient use of energy and water, and care of natural and created resources giving everyone the opportunity to

participate in economic activities. It offers socially and environmentally just solutions to economic exclusion and resource degradation. (Limpopo LEDET, 2013)

The report concludes that Limpopo Province has the following advantages, which could position it as leader in this field:

- Perfect geographic position to develop a variety of green industries and economies of scale;
- Invaluable mineral resource base for local beneficiation;
- Unexploited biodiversity resources for green tourism and payment for ecosystem services; and
- Vibrant young population to enthusiastically engage in new, innovative and developmental economic activities.

In support thereof, the following initiatives have been identified:

- Sustainable Production and Consumption
- Water Management
- Sustainable Waste Management Practices
- Clean Energy and Energy Efficiency
- Resource Conservation and Management
- Agriculture, Food Production and Forestry
- Green buildings and the built environment
- Sustainable Transport and Infrastructure
- Green Municipalities
- Cross-cutting

For the LSDF the following is fundamental:

- All natural economic resources should be retained and indeed strengthened;
- Resource conservation and management is key (i.e. natural resources must be protected);
- Economic production is vital, and spatially this should be included in the LSDF;
- Sustainable transport and infrastructure is critical for economic growth;
- Agriculture, food production and forestry are key i.e. productive agricultural land must be protected and retained since the Province must retain its status as 'food basket in the sub-continent';
- All LMs are part of this because the resource base is existing and vulnerable;
- Silicon reserves and the silicon smelters (in Polokwane) must be protected; and
- Development of solar farms should be considered.

Finally, it is concluded that the green economy will be the mainstream economy of the future, as the world transitions into sustainable consumption and production patterns.

2.5.8 Limpopo Tourism Growth Strategy and Implementation Plan, 2018/19-2023/24

The Limpopo Department of Economic Development, Environment and Tourism (LEDET) reviewed the Limpopo Tourism Growth Strategy (LTGS) in 2018. The project necessitated the development of a holistic and integrated tourism strategy that is narrowly aligned with the Revised National Tourism Sector Strategy, 2016-2026, while addressing current issues specifically related to the Limpopo Province tourism sector environment. The objective of the strategy is to guide tourism growth and development in Limpopo, diversify the provincial tourism sector, strengthen its economic position and expand the competitiveness of Limpopo as a tourist destination in Southern Africa. (Limpopo LEDET, 2018)

Tourism in Limpopo has a very strong competitive advantage in ecotourism linked with wildlife, culture and vast natural landscapes. Limpopo is furthermore strategically positioned to play an important role in developing cross

border destinations within Southern Africa. The review of the LTGS led to the creation of six tourism clusters that were identified as the building blocks of the strategy. These clusters are: the Family & Recreation cluster, Business & Events cluster, Sport & Wildlife cluster, Safari and Hunting cluster, and the Special Interest cluster.

The following proposed projects/ initiatives have a spatial implication, which should be considered in the LSDF review:

- International airport in Polokwane to be more tourist orientated
- Support Hoedspruit as an important access point for international tourists into Limpopo
- Prioritise Mapungubwe and Makapan Valley World Heritage Site (WHS) as unique tourist icons to visit
- Develop Makapan Valley WHS as a tourist destination focussing on educators, learners, researchers, special interest and family groups
- Construct off-ramp from N1 to R101 to ease access to Makapan Valley WHS
- Improve gate access into Kruger National Park
- Develop tourist routes in each biosphere reserve (Soutpansberg-, Waterberg-, and Kruger to Canyons Biosphere Regions)
- Facilitate the establishment and maintenance of routes that depict the diverse cultural experiences in Limpopo
- Expand the African Ivory route experience
- Develop and implement a workable model for community-based tourism projects
- Creatively package the Moria City destination for domestic and regional religious tourism
- Upgrade and develop iconic heritage sites e.g. Dzata, Tjate, Makgabeng, Makapan Valley, etc
- National parks, biosphere reserves, provincial nature reserves, heritage sites and transfrontier conservation areas protected and managed as required by legislation and protocols
- The impact of developments that has the potential to change the character of the mega conservation areas in Limpopo should be controlled and managed (e.g. mining and township development within green corridors)

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. 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

2.5.9 Synthesis: Implications of Provincial Strategic Direction

The provincial policy frameworks, and in particular the LDP 2020-2025 (Limpopo OTP, 2020), provide clear directives to inform the review of the LSDF. There is also synergy in the principles applied in the frameworks. A brief synopsis of the spatial informants derived from the provincial frameworks are as follow:

- Ease access to the LSDF as a provincial framework;
- Entrench the principles put forward in the LSDF in all sphere of government, but also in the broader public stakeholder domain;
- Ensure integrated planning and monitoring across all spheres;
- A prioritisation framework based on the hierarchy of nodes was previously applied. It is clear from both
 the weak implementation provincially, and the directives issued nationally, that a further re-prioritisation
 and consolidation approach should be followed. This resulted in a very strong directive that public

investment in the Province will be consolidated and targeted at the identified spatial targeting areas in the Province:

- The ten provincial growth points that form the provincial growth point programme, is further prioritised to the five growth points with the highest development potential and development pressure, thereby adding a further layer of prioritisation;
- Strategic infrastructure development must be used to unlock private infrastructure investment;
- There are various strategic initiatives and interventions prioritised and proposed by the Province for the realisation of the provincial development vision. Nine of these have been identified as having high growth and catalytic impact and together form the Nine High Impact Growth Catalytic Programmes;
- The realisation of the initiatives relies on enabling bulk infrastructure planning, project preparation and project management, innovative and digital solutions, partnerships and collaboration, environmental care and sustainable outcomes.
- At the centre of growing the provincial economy, lies the provincial industrialisation path to diversify the economy by means of beneficiation and value-addition of the mining, agriculture and manufacturing sector. The realisation of economic growth also relies on advancing connectivity, skills development and consolidating initiatives.

Other aspects that emanated from the various frameworks that should be considered during the review of the LSDF include:

Human settlements:

- Introduce an integrated approach in the development of inclusive smart cities in order to obtain data at scale, and consequently realise cross-sectoral benefits;
- The low proportion of urban residents, and the growth trends favouring rural population growth is an anomaly that must be taken into account in spatial planning and service delivery;
- The policy shift in investment in human settlements is to enhance the realisation of spatial transformation and security of tenure. The human settlements programmes will be invested in the spatial targeting areas, be urban-biased and focus on serviced stands, FLISP, EPHP and rental housing options as apposed to large scale top structure development. The shift places as stronger focus on community empowerment to build their own homes.
- There are no PHSHDAs identified in the Elias Motsoaledi, Mogalakwena and Ba-Phalaborwa LMs.

Economic:

- The Tubatse SEZ has not been licenced or promulgated yet. The emphasis for the next five years is on the feasibility to establish Tubatse Industrial Hub.
- A well-maintained movement network (especially roads) is crucial to support nature tourism and business tourism in the Province, especially to recover the tourism industry from the impact of COVID-19 pandemic.

2.6 District Municipal Spatial Development Frameworks

This section summarises the spatial development frameworks (SDFs) of the five districts in the Province, including key spatial challenges and strategies as input to the LSDF review.

2.6.1 Capricorn District Municipality

The Capricorn District in the central parts of the Province includes the Polokwane, Blouberg, Molemolle and Lepelle-Nkumpi LMs and is host to the capital city of the Province, Polokwane.

The Capricorn District Municipality SDF was last reviewed in 2017. (Capricorn District, 2017)

2.6.1.1 Vision and Development Objectives

Spatial Vision: Capricorn District should ultimately be spatially connected, attractive, sustainable and well-managed.

It furthermore addresses several key focus areas i.e. integration, physical infrastructure, economic development, environmental management, social development and governance; and it deals with all the spatial issues identified in the District.

The spatial development objectives of the Capricorn District SDF are to:

- Consolidate and protect environmentally sensitive areas to ensure long term environmental sustainability
- Enhance spatial efficiency by defining a range of urban and rural nodes in the district around which to consolidate economic development and infrastructure investment
- Establish a comprehensive movement network to link all activity nodes within the district and beyond,
 and to promote corridor development through land use-transportation integration
- Consolidate community facilities at urban and nodal points to enhance "one-stop" access to such facilities for the community, and to contribute towards creating "critical mass" required to stimulate local economic development
- Direct infrastructure investment towards the activity nodes in the district, strategic development areas earmarked for residential development, and communities with excessive service backlogs
- Consolidate the tourism character of the district around the Blouberg and Wolkberg clusters which would provide linkages to the Vhembe, Waterberg and Kruger to Canyons Biospheres
- Optimise agricultural production and processing in all parts of the District
- Optimally utilise the mining potential in the District in such a way that a sustainable balance is maintained between mining, agriculture and the natural environment
- Concentrate industrial activities around the Polokwane/ Seshego cluster and agro-processing at the Rural Nodes and Rural Service Centres, optimising the available industrial infrastructure
- Enhance and consolidate commercial and business activities at each of the identified nodal points and strengthen Polokwane City's identity as provincial and regional capital
- Achieve urban restructuring and spatial justice by way of mixed income residential development around the identified nodal points, and within identified Strategic Development Areas
- Compile Community Based Rural Development Plans for identified Rural Intervention Areas

The figure below illustrates the SDF spatial development objectives.

Consolidated Spatial Development Framework Legend Protected Areas Critical Biodiversity Area 1 Forestry Cultivated Land Grazing Provincial Growth Point (SEZ) Provincial Growth Points District Growth Points Municipal Growth Points Rural Node/Service Point Rural Intervention Areas National Roads Main Roads Tourism Links Railways Border Posts Tourism Anchors Service Centres Mineral Fields Industrial hub 😽 Agri Hu Figure 34

Figure 32: Capricorn District Municipality SDF Consolidated Plan

(Capricorn District, 2017)

2.6.1.2 Nodal Areas and Human Settlements

The proposed nodal hierarchy for the Capricorn District is listed below. As indicated in the development objectives above, the Capricorn District SDF recommends that economic and social infrastructure, as well human settlements development, be consolidated at these nodes.

- Provincial Growth Points: Polokwane
- District Growth Points: Senwabarwana; Mankweng; Lebowakgomo
- Municipal Growth Points: Alldays; Mogwadi; Morebeng
- Rural Service Centres: Taaiboschgroet; Eldorado; Kromhoek; Tolwe; Baltimore; Swartwater; My
 Darling; Avon; Vivo; Ga-Rawesi; Ga-Rampuru; Tibane; Ga-Ngwetsana/ Ceres; Mabukele; Bakone/
 Setumong; Kalkspruit; Mphakane; Sebayeng; Ga-Mashashane; Tshwene; Mogoto; Mphalhele; Magatle;
 Ga-Mathabatha; Mafefe

In terms of spatial targeting areas for human settlement development, the Capricorn SDF consolidated the Strategic Development Areas (SDAs) from the various LM SDFs. According to the SDF, the collective SDAs should be sufficient to accommodate projected household growth in the short and medium term.

A challenge was highlighted regarding the need to prevent uncontrolled development in rural areas with specific reference to areas under custodianship of Traditional Authorities.

2.6.1.3 Routes and Linkages

The following routes were identified as priority movement routes in the District:

- National Roads: N1; N11
- Provincial Roads: R521; R567; R71; R81; R36; R37; R519; R518; R372; R561

The following new linkages were proposed to supplement the existing road network:

- Establish a strategic link between R518 /R561, N1 and R521 in the Blouberg area in order to improve regional access and to support tourism
- Upgrading of the route between R561, Rebone, Ga-Rawesi, Senwabarwana and Mogwadi/ Vivo in order to enhance access to the Lephalale Provincial Growth Point.

Polokwane City is proposed to accommodate a Logistics and Modal Transfer Hub.

In respect of air transport, Polokwane City hosts the Gateway International Airport for commercial and passenger air transport.

2.6.1.4 Environment and Tourism

The SDF provides for three tourism precincts, namely a Northern (Blouberg/ Moletsi), Central (Polokwane City) and Southern precinct (Maribashoek/ Strydpoort/ Eastern escarpment).

2.6.1.5 Agriculture

An Agri-hub was proposed at Ga-Poopedi which can also support a variety of farming concepts including intensive commercial farming small scale commercial farming, subsistence farming, aquaculture development, and agro-processing industries.

2.6.1.6 Mining and Industries

The SDF recognises that the City of Polokwane is classified as an IDZ/ SEZ in both the LDP and LSDF 2016. It therefore earmarks the Polokwane/ Seshego areas as the focal points for industrial development in the District.

2.6.1.7 Local Municipality Spatial Development Frameworks

The status of LM SDFs in Capricorn District are as follows:

Local Municipality	Date of SDF	Comment
Polokwane Local Municipality	2010	Review required.
Blouberg Local Municipality	2019	
Molemolle Local Municipality	2013	Review required.
Lepelle-Nkumpi Local Municipality	2016	Review required

2.6.2 Mopani District Municipality

The Mopani District Municipality comprises of five LMs namely Ba-Phalaborwa, Greater Giyani, Greater Letaba, Greater Tzaneen and Maruleng. The spatial development framework for the district is under review. This section will be updated once the SDF review has been completed.

2.6.2.1 Nodal Areas and Human Settlements

The nodal hierarchy proposed in the Mopani Integrated Development Plan, 2022-2026 is as follows (Mopani District, 2022):

- Provincial Growth Points: Tzaneen; Phalaborwa; Giyani; Modjadjiskloof
- District Growth Points: Nkowankowa; Lenyenye; Namakgale; Gravelotte; Ndhambi; Ga-Kgapane; Hoedspruit
- Municipal Growth Points: Burgersdorp; Letsitele; Haenertsburg; Lulekane; Xawela; Nkomo;
 Xikhumba; Senwamokgope; Metz; Lorraine

Rural Service Centres: Ka-Mazwi; Rikhotso; Senoppelwa; Ga-Mokgwathi; Runnymede; Serololo;
 Nkambako; Ga-Selwane; Mahale; Mukwanana; Mavalani; Thomo; Homu; Ngove; Xikukwani; Mooketsi;
 Thakgalane; Mamaila; Nakampe

2.6.2.2 Routes and Linkages

The following routes are indicated in the IDP, 2022-2026 as important corridors to the Municipality, namely:

- R36 from Modjadjiskloof to Mashishing/Lydenburg
- R40 from Gravelotte to Mbombela
- R71 from Haenertsburg to Phalaborwa
- R81 from Giyani to Polokwane
- R529 from Giyani to Tzaneen

2.6.2.3 Environment and Tourism

Protected areas form the basis of tourism in the District. Apart from the Kruger-to-Canyon Biosphere, the abundance of valuable conservation areas/ reserves in the District are:

- Kruger National Park
- Modjadji Nature Reserve
- Manombe Nature Reserve
- Provincial Merensky Reserve
- Letaba Ranch
- Soutini Baleni (African Ivory Route in the district were traditional salt making activities takes place)
- Various Private Game reserves

2.6.2.4 Local Municipality Spatial Development Frameworks

The status of LM SDFs in Mopani District are as follows:

Local Municipality	Date of SDF	Comment
Ba-Phalaborwa Local Municipality	2019	
Greater Giyani Local Municipality	2013	Review required
Greater Letaba Local Municipality	TBC	TBC
Greater Tzaneen	2017	Review required
Maruleng Local Municipality	2007	Review required

2.6.3 Sekhukhune District Municipality

The LMs in the Sekhukhune District Municipality are Elias Motsoaledi, Ephraim Mogale, Makhuduthamaga and FetakgomoTubatse LM.

The Sekhukhune District Municipality SDF was reviewed in 2018 (Sekhukhune District, 2018).

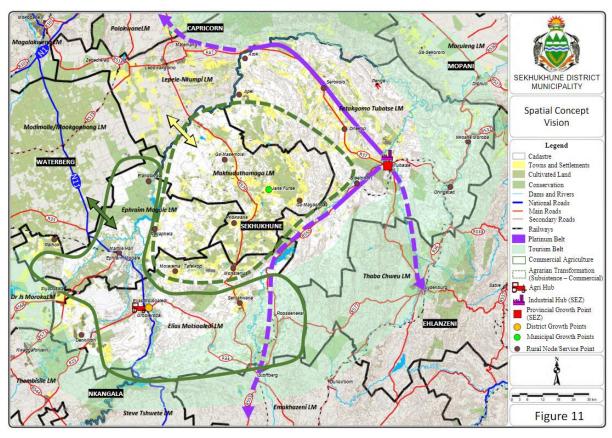
2.6.3.1 Vision and Development Objectives

The Sekhukhune District Municipality SDF provides the following guiding statements as a vision, supported by a diagrammatic illustration (refer to Figure 33):

- Consolidating government investment (spatial targeting) of prioritised urban and rural nodes
- Linking into the commercial opportunities offered by the tourism meander

- Intensifying commercial agriculture and focusing on agrarian transformation
- Promoting agrarian downstream beneficiation at the Groblersdal Agri Hub and at rural nodes
- Maximising the economic benefits to be derived from the Dilokong Platinum Belt and Burgersfort nodal point
- Enhance inter- and intra-district transport linkages

Figure 33: Sekhukhune District Municipality SDF Spatial Vision / Concept



(Sekhukhune District, 2018)

The Sekhukhune District SDF is based on the following Development Principles, as spatially illustrated in Figure 34:

- To actively protect, manage and rehabilitate the natural environmental resources in the district in order to ensure a sustainable equilibrium between the competing mining, tourism and agricultural industries.
- To establish a functional system of economic and service delivery nodes in the urban and rural parts of the District.
- To optimise connectivity and access by way of a comprehensive district movement network linking all urban and rural nodes to one another, and to significant destinations in the broader region.
- To ensure equitable access to social facilities and promotion of Local Economic Development by way of targeted investment based on a spatial logic (MPCC) at all the priority nodes within the District.
- To consolidate human settlement projects in sustainable Priority Housing Development Areas at the identified urban and rural nodes.
- To direct engineering infrastructure investment aimed at social and economic development towards the priority nodes, and provide at least basic services to communities experiencing excessive service backlogs (in line with Constitutional obligation).
- To utilise the natural environmental and cultural historic features in the District as anchors from which to promote ecotourism and conservation.

- To further enhance agricultural development and food production by establishing the Agri Park concept in the District.
- To facilitate upscaling of subsistence farming to commercial farming in all the identified Rural Intervention Areas within the Sekhukhune Agri Park.
- To optimally utilise the mining potential in the District with due consideration to the continuous rehabilitation of mining land.
- To promote industrial/commercial development in the District with specific emphasis on agri-processing at the Agri Hub (Groblersdal), and minerals beneficiation in the Special Economic Zone: SEZ (Tubatse).
- To promote formal and informal business development at all activity nodes in the district and to continuously provide opportunities for upscaling.

SEKHUKHUNE DISTRICT MUNICIPALITY Spatial Development Framework Legend Towns and Settlements Critical Biodiversity Area 1 Protected Areas Dams and Rivers Provincial Growth Point (SEZ) District Growth Points Municipal Growth Points
 Rural Node Service Point Main Roads Secondary Roads Railways Cattle / Game / Bushveld Subsistence Farming Commercial Crop Cultivation Pivot Irrigation Tourism Anchor Agri Hub & RUMC Mining Activities Industrial Hub (SEZ) Figure 37.8

Figure 34: Sekhukhune Spatial Development Framework, 2018

(Sekhukhune District, 2018)

2.6.3.2 Nodal Areas and Human Settlements

The SDF proposed the following nodal hierarchy in the District:

- Provincial Growth Points: Tubatse
- District Growth Points: Steelpoort; Jane Furse; Marble Hall; Groblersdal
- Municipal Growth Points: Ohrigstad; Driekop; Mecklenburg; Atok; Apel; Apel Cross; Glen Cowie;
 Roossenekal
- Rural Service Centres: Leboeng; Kgautswana; Praktiseer; Malokela; Mphanama; Manganeng;
 Schoonoord; Tshehlwaneng/ Magneethoogte; Ga-Mampuru; Elandskraal; Letebejane; Ragaphgela/ Ga-Rakwadi; Moganyaka/Leeuwfontein; Motetema/ Tafelkop; Phokwane; Vierfontein/ Takataka; Moratiwa;
 Hlogotlou; Sehlakwane; Elandsdoring; Letebejane/ Ditholong; Rathoka

Note that there are differences between the identified higher order nodes or growth points of the District and the LSDF 2016 and the NSDF: these are highlighted in Section 4: LSDF Review.

As in the Capricorn District SDF, the Sekhukhune District SDF promotes consolidation of public investment around the identified nodes/ growth points, including economic, social and engineering infrastructure as well as human settlements.

The SDF notes that large portions of rural land in the District are held in trust by tribal and community authorities, contributing to a general absence of security of tenure. The challenge is amplified by general lack of access to essential services such as water and electricity and poor road conditions. The recommended intervention to address this pervasive challenge is that selected rural service centres (see above) be prioritised for public investment. This rationale is in line with the LSDF 2016 currently under review.

Finally, the SDF earmarked Strategic Development Areas (SDAs) which are intended for future housing/ human settlements development, and aligned with the projected population growth and proposed nodal hierarchy.

2.6.3.3 Routes and Linkages

The following are indicated as main routes/ route sections in the Sekhukhune District. The SDF advises that all regional routes that traverse the District have to be properly maintained and/or upgraded in order to encourage regional traffic to travel through the district rather than around it.

- National Roads: N11 corridor route
- Main Roads:
 - R37 and R555 which is the Dilokong Corridor
 - R579 the north-south link
 - R36 as part of the tourism corridor
 - R573, which forms part of the Moloto Corridor

A Freight Hub is proposed at Marble Hall along the N11 Corridor and at Tubatse along the R37/ Dilokong Corridor.

East-west accessibility is generally lacking. The SDF proposes a strong and multi-nodal east-west movement/ development corridor to improve accessibility. Effectively this corridor extends the Moloto Corridor from City of Tshwane to Kwaggafontein and then through Groblersdal and Jane Furse right up to Tubatse/ Burgersfort. The alignment is indicated on Figure 35 and includes the following road sections:

- From Kwaggafontein/ Moteti to Dennilton/ Elandsdoring (upgrade)
- From Dennilton/ Elandsdoring to Groblersdal via the R25
- From Groblersdal to Hlogotlou/ Moratiwa via the existing secondary road passing Motetema, Rite, and Sephaku (upgrade)
- From Moratiwa to Glen Cowie/ Gamoloi via Takataka, Maserumo and Phokwane on the R579
- From Glen Cowie/ Gamoloi to Jane Furse via the existing secondary road passing Maleetse (upgrade)
- From Jane Furse past Tshelwaneng to Kokwaneng (R555) via the existing secondary road through the mountain (upgrade)
- From Kokwaneng to Steelpoort and Tubatse/ Burgersfort via the R555 up to R37 intersection.

MUNICIPALITY Spatial Development Framework Principle 3 : Movement Network Legend Cadastre Towns and Settlements Critical Biodiversity Area 1 Protected Areas District Growth Points Municipal Growth Points Rural Node/Service Point National Roads Main Roads Secondary Roads Railways
Proposed Main Road Linkage Proposed Main Roau Priority Secondary Roads Figure 37.3

Figure 35: Sekhukhune SDF - Proposed East-West Corridor

(Sekhukhune District, 2018)

2.6.3.4 Environment and Tourism

The following tourism areas are regarded as anchors and tourism corridors in the District, namely:

- Mafalo a Matala route around Groblersdal and Marble Hall
- Marola Cultural Route in the northern parts
- Platinum Stream Mining Route along the R37

The above corridors include the following tourism anchors:

- The Tjate heritage site
- Flag Boshielo dam
- The Entrance Gate Complex
- The De Hoop dam complex to Mapoch Cave heritage site
- Drakensberg escarpment complex
- Masemola cluster of heritage projects

2.6.3.5 Agriculture

An Agri-hub is proposed for Groblersdal with Farmer Production Support Units (FPSUs) in the areas of Mecklenburg/ Driekop and Jane Furse/ Manganeng. The SDF makes comprehensive recommendations for value chain development in the agricultural sector.

2.6.3.6 Mining and Industries

The Sekhukhune District SDF seeks to enhance the District's local competitive advantage in mining by way of the development of the Dilokong Corridor (eastern limb) and associated mining belt along routes R37 and R555.

With less than ten percent of the total capacity of the Reef having been unlocked to date, the mining sector in the District has much potential for growth.

The Sekhukhune SDF further proposes that secondary or value-added industrial/ commercial activities related to agricultural and mining activities be clustered at Groblersdal (Agriculture Hub) and Tubatse (Mining/ Industrial Node/ SEZ).

2.6.3.7 Local Municipality Spatial Development Frameworks

The status of LM SDFs within the district are as follows:

Local Municipality	Date of SDF	Comment
Elias Motsoaledi Local Municipality	2018	
Ephraim Mogale Local Municipality	2018	
Makhuduthamaga Local Municipality	TBC	TBC
FetakgomoTubatse Local Municipality	2020	

2.6.3.7.1 Major Initiatives and Strategic Directives from Local Municipal Spatial Development Frameworks

The following strategic initiatives were noted in the Sekhukhune District and LM SDFs that may impact on the District and Province, namely:

- The N11 is a major route in the District and includes a Freight Hub in Ephraim Mogale (Marble Hall)
- Kruger to Canyon Biosphere
- Urban-rural interdependencies, which underpins the dependence that rural areas have on the urban areas, but also that the urban areas depend on the rural areas for workforce and support in buying products and utilisation of specialised services
- Revitalisation of small towns and villages
- Tubatse Special Economic Zone
- Upgrading of engineering services in marginalised areas/ rural settlements

2.6.4 Vhembe District Municipality

The Vhembe District, the northern-most extents of the Country and the Limpopo Province, comprises the LMs of Musina, Thulamela, Makhado and Collins Chabane.

The Vhembe District Municipality SDF, 2019-2025 is currently in operation (Vhembe District, 2019).

2.6.4.1 Vision and Development Objectives

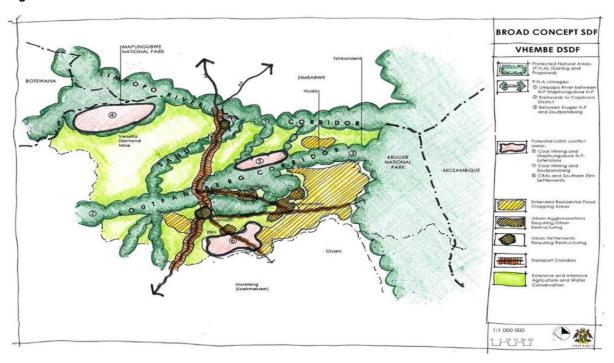
The Vhembe District Municipality SDF proposes the following vision for the District, which provides a combination of aspiration and key strengths to be leveraged (illustrated in Figure 36):

"A spatially integrated district striving towards effective sustainable development, service delivery and improving accessibility to economic resources by:

- Creating an integrated and spatially just society through the equitable and sustainable spatial restructuring of Vhembe's urban and rural settlements;
- Spatial restructuring through the development of a new SMART city with supporting smaller nodes that are integrated with well-defined corridors;
- Optimizing the rich and balanced mix of Vhembe's natural assets in agriculture, tourism, heritage, natural and mineral resources, and eco system services within their scenic settings (These are

- contained in the sacred sites and important bio-diverse landscapes of the Soutpansberg, Mapungubwe and Kruger National Parks and the fertile Luvuvhu river valley);
- Economic potential arising from its relatively dense populations along the R523, R524 and R578 corridors and its strategic position straddling the international N1;
- Great North Road transport corridor linking Gauteng to the SADC countries by road and rail; and
- Ensuring targeted investment and maintenance of key infrastructure networks including transport, water resources and energy in order to achieve sustained economic growth and improved service delivery in the District".

Figure 36: Vhembe District SDF Vision



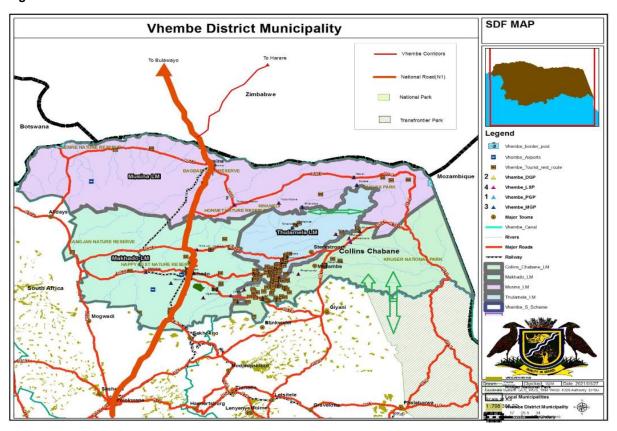
(Vhembe District, 2019)

The SDF is premised on the following objectives and guidelines, and is illustrated in Figure 37:

- Blue Green Corridor:
 - Gradually assembles river corridors by promoting private nature conservation areas
 - Prohibit plowing and buildings within 32 meters of river banks
- Potential mining, land reform and bio-diversity conservation conflicts
 - Mining: Formulate and comply with mine after-use plans
 - Protect the CBA within suburban settlements
- Settlement pattern
 - Promote the use of vacant well-located, often publicly owned land, for infill development
 - Encourage compaction of suburban agglomerations
 - Promote the use of off-grid services whenever possible
 - Protect arable land and biodiversity conservation areas from urban development
 - Promote localised supply chains
- Higher order socio-economic service delivery
 - Provide services at a network of strategic locations (nodes), especially to improve service delivery in rural areas
- Extensive and intensive agricultural resource base
 - Department of Agriculture to provide town planning support in rural parts of the District

- Land Use Management institutions
 - Combined project steering committees for spatial planning projects, including LMs and traditional authority officials
- Transport corridors
 - Facilitate road freight within District and to SADC countries. Musina is a key destination in this regard.
 - Accommodate informal trade on lower order routes, in support of the local economy
- Strengthen the District settlement hierarchy
 - Continue to promote the settlement hierarchy as proposed in the Limpopo Provincial SDF, 2016 and previous Vhembe District SDF, 2016, i.e. consolidate economic, social and engineering infrastructure at identified activity nodes

Figure 37: Vhembe District SDF 2019-2024



(Vhembe District, 2019)

2.6.4.2 Nodal Areas and Human Settlements

The SDF defines the following nodal hierarchy for the District (Vhembe District, 2019):

- Provincial Growth Points: Makhado, Musina, Thohoyandou
- District Growth Points: Elim/ Waterval; Malamulele; Sibasa
- **Municipal Growth Points**: Vuwani; Hlanganani; Rabali; Bungeni; Masisi; Saselman; Tshaulu; Dzanani; Ka Majosi; Madombidzha; Makonde; Mukula; Khubvi; Tshilamba/ Mutale
- Population Contration Points: Ravele; Tshino; Tshakhuma; Maebane; Magoro; Olifantshoek; Tiyani;
 Nhinga; Gijani
- Rural Service Centres: Chavani; Dzwarani; Folovhodwe; Maebani; Phaphazela; Tshikuwi; Tshipise Resort; Tshirando; Vleifontein; Xikundu; Buysdorp; Thalane; Amancisini; Waterpoort; Valdezia';

Mukhomi; Tshimbupfe A & B; Lwamondo; Vhufuli; Tshixwadza; Tshikombani; Makuya; Madimbo; Muswodi Dipeni; Mopane; Valdezia; Waterpoort.

The SDF notes that Musina and Makhado, being located adjacent to the N1, have potential for growth, and that they are in need of urban restructuring to integrate the formerly segregated parts of town.

The towns of Thohoyandou, Elim and Khalavha are highlighted as high attractors of economic activity and population growth. Challenges to be overcome includes integrating traditional council and municipal land use management and service provision decision making.

There are challenges regarding a lack of gap housing, insufficient land for integrated human settlements projects, abandoned or incomplete low cost housing, mushrooming of informal settlements at certain towns, low residential densities resulting in long distances to social amenities, high numbers of illegal immigrants, land invasions and land disputes. Lastly, the continued organic expansion of rural settlements onto high potential agricultural land and environmentally sensitive land poses a challenge.

Importantly, the SDF notes that "there is a concern that the notation and depiction of Population Growth Points (PGPs), Strategic Development Areas (SDAs) and similar terminology used in previous SDFs does not sufficiently engage with the detail required to ensure sustainable Land Use Management of these settlement patterns in the long term".

Generally, the SDF encourages compaction/ consolidation of the existing urban footprint to protect the natural environment, including high potential agricultural land and water resources, and to support efficient service delivery.

2.6.4.3 Routes and Linkages

Roads and service infrastructure is generally considered a challenge in the District, ranging from poor maintenance to backlogs, particularly in rural parts of the District.

The greatest strategic role of the District is the N1 link from Polokwane to Beitbridge and into SADC. The SDF notes the importance of maintaining in good condition the following prominent routes in the district, including the N1:

- R522 from Vivo to Makhado
- R523 from Vivo via Waterpoort to Musekwa poort
- R521 from Vivo to Pont drift Border
- R572 from Musina to Pont Drift
- R524 from the Makhado central business district to Punda Maria and Mozambique
- R529 from Basani, Malamulele, Giyani to Moiketsi
- R81 from Road R524 to Giyani
- R525 from Mopani the N1 road to Pafuri Gate
- R578 from Kruger National Park, Malamulele, Vuwani, Giyani via Elim to the N1 National Road Thohoyandou, Masisi, Tshikondeni and Pafuri gate
- D4 from N1, Vleifontein, Elim Vuwani Malamulele to Shangoni gate

2.6.4.4 Environment and Tourism

The following attractions form part of the District's strategic nature tourism advantage:

- Kruger National Park
- Mapungubwe National Park World Heritage site
- Vhembe Biosphere Reserve
- Soutpansberg Extensive Agriculture and Cultural Tourism Eco-corridor
- Musina Baobab Tree Nature Reserve

- Ben Lavin Nature Reserve
- Venetia Limpopo Nature Reserve
- Nwanedi Nature Reserve and Nwanedi Conservancies
- Langjan Nature Reserve
- Nzhelele Nature Reserve
- Happy Nest Nature Reserve
- Honnet Nature Reserve
- Aventura Tshipise
- Rich bird life
- Sports events (golf, cycling, running, 4x4 challenges)

2.6.4.5 Agriculture

Arable land is mostly located in the southern and central areas of the District. The SDF strongly advocates for the protection of high potential agricultural land from urban development, particularly from organic rural settlement expansion.

An agripark is proposed at Makhado or Thohoyandou.

2.6.4.6 Mining and Industries

The SDF advocates strongly for environmentally responsible mining practices, and especially for stringent mine rehabilitation. It also promotes taking advantage of the district's green energy generation potential, especially wind and solar.

With regards to industrial development, the SDF recognises the designation of Makhado and Musina as SEZs. The following implications of the proposed SEZ are raised by the SDF:

- Need for planning of access to adequate bulk engineering infrastructure services.
- Alignment of the draft internal masterplan, 2019 the bulk engineering infrastructure services with District IWSDP.
- Several upgrades will be required to road, rail, and public transport infrastructure.

2.6.4.7 Local Municipality Spatial Development Frameworks

The status of LM SDFs within the district are as follows:

Local Municipality	Date of SDF	Comment
Makhado Local Municipality	2012	Review required
Thulamela Local Municipality	2018	
Musina Local Municipality	2019	
Collins Chabane Local Municipality	2017	

2.6.5 Waterberg District Municipality

The Waterberg District Municipality forms the western extents of the Province and includes the Bela-Bela, Mogalakwena, Modimolle/ Mookgophong, Lephalale and Thabazimbi LMs.

The Waterberg District SDF was reviewed in 2021 (Waterberg District, 2021). The salient features are summarised in the sections that follow.

2.6.5.1 Vision and Development Objectives

The Waterberg SDF poses the following spatial vision for the district: "A spatially functional and equitable district that is a conducive living environment for all, an energy hub and an eco-tourism destination".

The spatial development objectives of the Waterberg SDF are as follows:

- A spatially functional District: Ensure a spatially functional district that optimises the use of resources and achieve a sustainable balance between macro land uses;
- Integrated sustainable human settlements: Ensure that integrated and sustainable human settlements
 are developed that redress spatial imbalances and promote inclusive and sustainable land
 development;
- Investment in targeted nodes: Ensure that development in higher order urban nodes is prioritised and that such nodes provide a range of development opportunities according to the comparative advantages and needs of the communities;
- Sustainable rural livelihoods: Improve rural areas by creating integrated and sustainable livelihoods;
- A connected District: Ensure a well-functioning District that is connected and provide digital connectivity, convenience and economic prosperity;
- Integrated and consolidated service delivery: Ensure a functional District and conducive living
 conditions for all the residents by following an integrated approach in providing engineering
 infrastructure by all spheres of government.

The composite development framework is depicted in Figure 38 below.

WATERBERG DISTRICT MUNICIPALITY flal Development Frame 2021 - 2025 SPATIAL DEVELOPMENT FRAMEWORK Railways and Ext Corridor Routes / Priority Road Freight Routes Public Transport Routes Expansion of Provincial Comdor Route Environmental, Heritage Protection and Tourism Agricultural Areas WATERBERG ... General Farming Areas Agric Hub - Modil Mining & Energy Gen Mining Jrban & Rural Develops Spatial Targeting Areas Steenbokpan Special Spatia Targeting Area Incremental Upgrading Priority A Priority Human Settlements & Housing Development Areas District Spatial Targeting Areas MPUMALANGA GAUTENG

Figure 38: Waterberg District Municipality SDF, 2021 Composite Plan

(Waterberg District, 2021)

2.6.5.2 Nodal Areas and Human Settlements

The SDF proposes the following hierarchy of nodes in Waterberg:

- Provincial Growth Points: Bela-Bela; Lephalale/ Marapong; Mokopane/ Mahwelereng; Thabazimbi/ Regorogile
- District Growth Points: Northam; Modimolle/ Phagameng; Mookhophong; Bakenberg; Thabo Mbeki
- Rural Service Centres: Ga-Mabusela; Rebone; Setateng; Vaalwater; Pienaarsrivier; Roedtan; Mapela

The SDF is largely premised on the rationale of spatial targeting as promoted by the NSDF, namely consolidating the bulk of public investment in economic, social and engineering infrastructure at the above growth points/ nodes. Furthermore, human settlements planning has been aligned with the newly promulgated PHSHDAs, specifically PHSHDA 10: Lephalale and PHSHDA 11: Greater Northam.

Lastly, the District SDF provides a composite view of areas prioritised and already identified by the LMs within the District as priority or strategic areas for development. These are recognised as Special Spatial Targeting Areas "...are unique areas where development can be expected due to natural and economic development pressure or should be stimulated because of other national priorities." (Waterberg SDF, 2021: p.256). Special Spatial Targeting Areas also play a role in spatial transformation and to address imbalances of marginalised communities. The areas include Steenbokpan Industrial Node, Bakenberg/ Rebone Incremental Service Upgrading Area and Thabo Mbeki/ Setateng Incremental Service Upgrading Area. These areas should also be taken into account in the delineation of a revised provincial nodal hierarchy.

2.6.5.3 Routes and Linkages

The N1 and N11 freeways traverse the District, supported by a network of provincial routes that link the activity nodes to one another. The R33 East-West Corridor is highlighted as an important freight route linking the coalfields at Lephalale with the power stations in Mpumalanga Province.

The SDF recommends that the R510 Provincial Corridor route between Thabazimbi/ Northam and Rustenburg in North West Province should be upgraded to improve connectivity between these mining anchor regions.

2.6.5.4 Environment and Tourism

The District offers strong tourism potential. The Waterberg Biosphere, located in the central parts of the district, and proclaimed Nature Reserves play an important role in tourism in the region and Province.

2.6.5.5 Agriculture

An Agri-hub is proposed at Modimolle, and Farmer Production Support Units (FPSUs) at Bakenberg and Thabo Mbeki.

2.6.5.6 Mining and Industries

The District is richly endowed with mineral deposits. Three distinct mining areas are present in the district, namely the Waterberg Coalfields at Lephalale, which is further linked to energy generation; the Platinum reef mining cluster in the Mokopane area, and the mining areas in the Thabazimbi and Northam area. Mining is one of the core sectors of the economy and its development remains a key strategy in the district.

2.6.5.7 Local Municipality Spatial Development Frameworks

The status of LM SDFs in the district are as follows:

Local Municipality	Date of SDF	Comment
Bela-Bela Local Municipality	2018	
Mogalakwena Local Municipality	2017	Review required in 2022/23
Lephalale Local Municipality	2017	Review required in 2022/23
Thabazimbi Local Municipality	2014	Review required.

Local Municipality	Date of SDF	Comment
Modimolle/Mookgophong Local	2021	
Municipality		

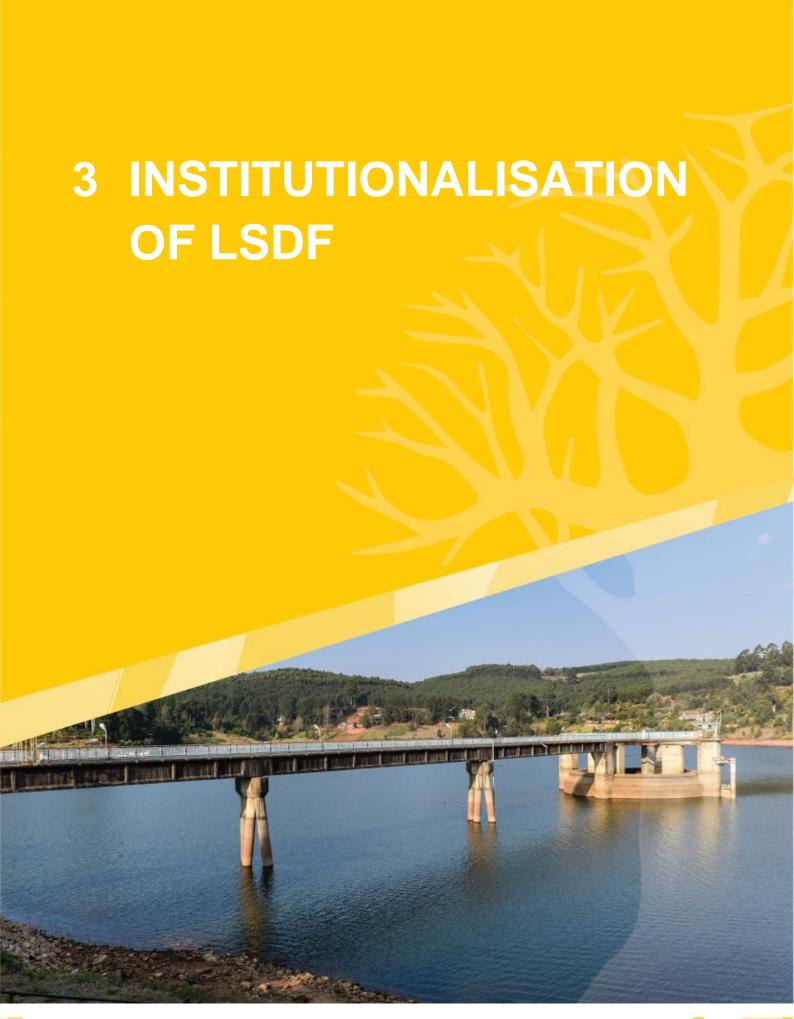
Summary of spatial challenges being experienced in Waterberg District:

- Lack of well-located land owned by the municipality for human settlements development purposes especially in Bela-Bela, Lephalale and Thabazimbi LMs.
- Land invasion, especially invasion of urban open spaces. Institutional capacity to manage and prevent land invasion are the constraining factors.
- Informal settlements and backyard dwellings are an increasing challenge especially in the mining regions.
- Municipalities expressed the need for technical and financial support from the district and Province to be able to respond to spatial needs.
- Ageing infrastructure, insufficient maintenance, and lack of sufficient bulk to service new developments are challenges affecting most LMs in the District. The towns with bulk capacity constraints are Mokopane, Lephalale, Northam and Bela-Bela.
- Delayed implementation of the priority bulk infrastructure projects in Mokopane and Lephalale (MCWAP 2 and ORWRDP) are serious constraints to economic investment in the District.
- There is a lack of sufficient collaboration and alignment between stakeholders in the tourism, environment, agriculture and mining sectors to realise the maximum conservation and development potential that the District can offer.

2.6.6 Synthesis: Spatial Directives from District Spatial Development Frameworks

The spatial directives emanating from the five District SDFs are summarised below:

- All five District SDFs have adopted the rationale of spatial targeting. To this end, there is broadly alignment between the LSDF nodes and District nodal hierarchies, though a more detailed comparison is provided in Section 4.
- There is broad agreement of the difficulties, as well as the need to integrate municipal and traditional council land use planning. The fact that large tracts of land are owned by the state and under custodianship by traditional authorities limits the availability of well-located land for economic development as well as human settlements projects.
- Economic growth in all the district's is premised on the growth of the primary economic sectors
 (Agriculture and Mining), as well as growing the Industrial sector and maximising the local tourism
 potential. The role of good roads and other supporting infrastructure is supported and highlighted.
- The greatest economic assets of the Province are protected areas and associated plant, bird and wildlife, as well as rich mineral deposits.
- There is support for green energy generation.
- The Province's strategic role with regards to the SADC countries is emphasised, noting opportunities of how to enhance and support freight movement, while maximising spin-off potential.
- Alignment of planning between LMs within a district, as well as with adjoining municipalities are of particular relevance to bulk infrastructure supply schemes, transport and movement, mining and industrial activities and linkages. There are also outcries for land use management schemes to be coherent to prevent different processes to be applied within the Province.



3.1 LSDF Institutionalisation

The Office of the Premier in collaboration with the Department of Agriculture, Rural Development and Land Reform (DARDLR) and the Department of Co-operative Governance, Human Settlements and Traditional Affairs (CoGHSTA), are tasked with the function to oversee the development, implementation and monitoring of the LSDF. The Office of the Premier also oversees the budgeting coherence towards the district developmental impact in alignment with national policies, frameworks and MTSF priorities.

Following the adoption of the LSDF, 2016, significant effort and success was achieved to institutionalise the LSDF rationale and development objectives across the Province. This included the strategic alignment of provincial departmental plans and budgeting priorities, and the adoption of the provincial growth point programme. The LSDF development philosophy was also instilled through the Cluster Committees. The alignment is evidenced in the LDP 2020-2025, the Provincial Land Transport Framework and the Multi-year Human Settlements Plan.

The implementation of the LSDF, 2016 across provincial departments is bi-annually monitored by the Office of the Premier and progress reported to the Premier's Advisory Council. The monitoring was only inhibited during the COVID-19 lock-down period.

The implementation of the LSDF and ensuring cross-sectoral alignment is also monitored through the Provincial Development Planning Forum. The Forum meets quarterly and is chaired by the Office of the Premier.

The LSDF, 2016 spatial rationale and development principles have successfully filtered into local planning frameworks, such as the District and Municipal SDFs and IDPs. With the review of each framework, the Office of the Premier, CoGHSTA and/or the DARDLR participated in the process to ensure alignment to the national and provincial policy directives.

CoGHSTA supports municipalities with municipal planning and supports the Premier's Office with cascading the LSDF and LDP 2020-2025 priorities and aligning provincial sector strategies and plans towards district IDPs to enhance developmental impact. The DARDLR also provides support and guidance to the review of SDFs in the Province.

The Department of Public Works, Roads and Infrastructure ensures that the planning of infrastructure by departments and municipalities is integrated and spatially referenced in line with the Limpopo Integrated Infrastructure Master Plan (LIIMP) and the recommendations of LSDF. The Department also plays a supporting role to the Premier's Office with coordination of the implementation of provincial catalytic projects to stimulate economic growth with infrastructure capital investment.

On District level, there are District Development Planning Forums that oversee the integrated planning and policy alignment of the district municipality and its LMs. Municipal Planning Tribunals have been established on district level, and in some instances by LMs in alignment with SPLUMA. The Office of the Premier and/or CoGHSTA are also represented on the tribunals to ensure development decisions aligns with the policy framework.

Since the development of the 2016 LSDF, the District Development Model has been introduced. The Waterberg District Municipality is one of the three national pilots and has a fully functional DDM Hub to facilitate the integrated development across the district.

Overall, the institutionalisation of the 2016 LSDF has been achieved across intergovernmental spheres. However, the successful implementation relies not only on government, but on the buy-in by all stakeholders.

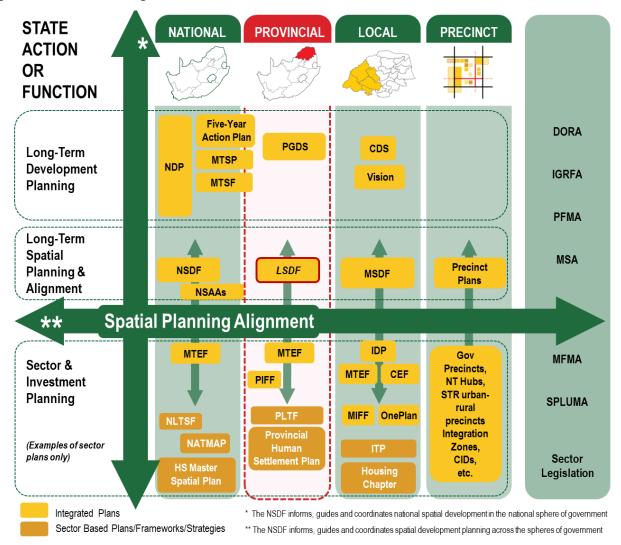
The implementation of the LSDF is not yet fully owned by private sector stakeholders, including traditional authorities. This is evidenced in the spatial issues raised by municipal SDFs such as the rural settlement

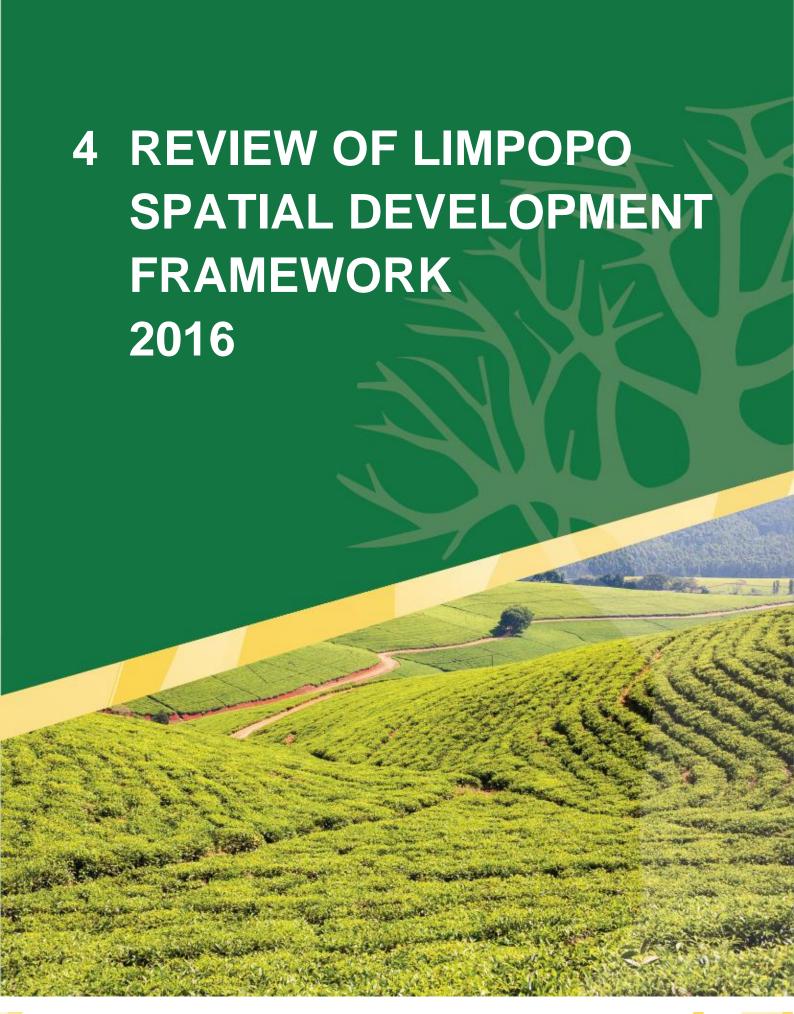
expansions outside planned development areas. With the LDP emphasising the contribution of private sector towards the growth of the Province, the review of the LSDF needs to clearly define how to embed the LSDF objectives and development directives across all stakeholders, and not only across government spheres.

3.2 LSDF in Planning Context

The LSDF provides the spatial link between national and municipal spatial planning. The place of the LSDF in the national family of plans is as follows (adapted from NSDF (DALRRD, 2022)):

Figure 39: LSDF in Planning Context





4.1 Introduction

As point of departure, it should be noted that the LSDF 2016 was adopted prior to the compilation and adoption of the NSDF. The sections that follow provides an overview of the LSDF 2016 and an analysis of areas for improvement in the current review.

4.2 LSDF 2016 Spatial Vision and Development Objectives

The **strategic vision** of the LSDF, 2016 is "a provincial spatial structure where the natural environment and valuable agricultural land in the rural areas are protected for future generations, with a strong, diverse and growing economy focused around a range of nodal areas and that offers its residents high quality living environments and good job opportunities in a sustainable manner" (Limpopo SDF, 2016: p. 147).

The LSDF subsequently sets out eleven Development Principles which build up to a final composite development framework and spatial form as depicted in Figure 40. The Development Principles (Limpopo SDF, 2016: p. 148 -184) are:

- Define and protect a Provincial Regional Open Space System which ensures that ecosystems are sustained and natural resources are utilised efficiently.
- Facilitate efficient spatial targeting through the identification of a range of provincial, district, municipal and rural nodal points to serve as focal points for investment and service delivery.
- Establish a multi modal transport network to optimise the movement of people and goods between nodes within the Province and to all major destinations in Southern Africa.
- Direct engineering infrastructure investment towards the priority nodal points where the majority of economic activity and human settlement will establish.
- Prioritise consolidation of community infrastructure at the identified nodal points and in line with the concept of multi-purpose Thusong Centres/ Rural Development Centres in Rural Nodes.
- Create conditions conducive to development in multifunctional business areas and implement Urban Revitalisation Strategies in such areas where required.
- Optimise the utilisation of agricultural potential of Limpopo Province to provide sustainable livelihoods to marginalised communities in rural areas in partnership with commercial farms.
- Utilise the provincial environmental resources as attractions to promote sustainable tourism development (and conservation) in all parts of the Province.
- Promote mining activity and associated job creation potential in an environmentally sustainable manner.
- Address industrial sectoral diversification by way of area specific investment in high value production and value added technologies and industries.
- Sustainable Human Settlement in urban and rural Limpopo Province.

Development Framework [Composite] Provincial Growth Points (SEZ) Grazing - Game Provincial Growth Points Grazing - Cattle District Growth Points Cultivated Land Forestry Municipal Growth Points Freight Hub

World Heritage Site Rural Node/Service Point Tourism Anchors Mining Clusters NR & TFCA LIM345 Agri Hub/ Park Priority Road Network
National Roads Industrial Hub (SEZ - Provincial Roads Logistics Hub Towns and Villages Border Posts Airports

KNP Gates - Railway Lines Proposed Rail Link WATERBERG LIMPOPO SDF 38

Figure 40: Limpopo Spatial Development Framework, 2016 - Composite Development Framework

Source: Limpopo SDF, 2016

4.3 LSDF 2016 Nodal Hierarchy

The nodal hierarchy set out in the LSDF 2016 is reflected in Table 8.

Table 8: Limpopo SDF 2016 Nodal Hierarchy

Hierarchy	Capricorn District	Mopani District	Sekhukhune District	Vhembe District	Waterberg District
Provincial Growth Point (10)	Polokwane	Tzaneen; Phalaborwa	Tubatse; Elias Motsoaledi	Musina; Makhado	Lephalale; Mogalakwena; Thabazimbi
District Growth Point (10)	Lebowakgomo; Mankweng; Senwabarwana	Hoedspruit; Giyani; Modjadjiskloof	Jane Furse	Thohoyandou	Modimolle; Bela- Bela
Municipal Growth Point (23)	Elim; Sibasa; Malamulele	Dzumeri; Ga-Kgapane; Nkowankowa; Lenyenye; Gravelotte; Metz	Ephraim Mogale; Motetema/ Tafelkop; Monsterlus; Steelpoort; Orighstad; Atok; Serokolo	Elim; Sibasa; Malamulele	Mookgophong; Thabo Mbeki; Mmotong/ Bakenberg; Northam
Rural Node/ Service Points (47)	Mphakane; Ga-Ramuru; Ga-Mashane;	Mandlakazi; Moleketla; Xawela;	Dennilton; Rathoke; Elandskraal;	Mutale-Masisi; Folovhodwe; Tshipise;	Ga-Mabusela; Rebone; GaSeleka;

Hierarchy	Capricorn District	Mopani District	Sekhukhune District	Vhembe District	Waterberg District
	Mogoto; Vivo; Eldorado; Sebayeng; Tolwe	Mamalia; Lulekani; Haenertsburg; Diphute/ The Oaks	Ragaphela; Sehlakwane; Phokwane; GaMagashoa Ga-Masemola; Apel; Driekop; Nkoane/ Moroba	Pontdrift; Dzanani; Makonde; Tshaulu; Mhinga; Phaphazela; Tshakhuma- Lwamondo; Vuwani; Ka Bungani; Madombidzha; Maebane	Setateng; Vaalwater; Pienaarsrivier; Roedtan

It is useful to compare the 2016 selection of nodes and hierarchy with the NSDF for the LSDF review currently underway, since the latter was developed and approved in the interim. **Error! Reference source not found.** p rovides a comparison of the location (city/ town) of activity nodes in Limpopo Province; Figure 41 offers a visual comparison of both the location and the allocated status/ hierarchy of the NSDF and LSDF 2016 nodal hierarchies.

Table 9: Comparison between NSDF and LSDF Nodal Hierarchy (per district; only top tiers)

Current NSDF		Current LSDF				
2022 system of nodes (hierarchy)	Vhembe District	Capricorn District	Mopani District	Sekhukhune District	Waterberg District	2016 growth point hierarchy
National urban node		Polokwane	Tzaneen			Provincial growth points
Regional develop-ment anchor	Musina, Makhado		Phalaborwa	Tubatse (Burgersfort); Elias Motsoaledi	Lephalale, Mokopane; Thabazimbi	
	Thohoyandou		Giyani		Bela-Bela	District growth points
Rural service centre		Lebowakgomo, Mankweng, Senwabarwana	Hoedspruit; Modjadjiskloof	Jane Furse	Modimolle	District growth points

<u>KEY</u>

NSDF & LSDF 2016 identified as a node

NSDF does not recognise as a node

It is evident that there is largely consensus on which cities and towns in the Province are the highest order nodes. There is consensus that two of the highest order activity nodes are Polokwane and Tzaneen.

The Regional Development Anchors are found at the second tier of the NSDF. Understandably, these towns are considered high order nodes (provincial growth points) at a provincial level, though their role at national level is slightly lower, earning them a tier 2 status.

Two discrepancies are found at tiers 3 and 4 of the LSDF 2016. Mankweng and Modjadiskloof are not recognised as nodes in the NSDF. All other District Growth Points are recognised as either Regional Development Anchors (NSDF tier 2) or Rural Service Centres (NSDF tier 3).

It is acknowledged that the hierarchy of some towns is higher at a provincial scale than what their role is considered at a national scale. The definitions applied in the two planning frameworks should also be compared

to ensure meaningful comparison. Clearly, the review of the LSDF should reconsider the selected towns forming its nodal hierarchy taking into account the NSDF proposals. In addition, the application of the LSDF nodal hierarchy in municipal SDFs should also be taken into consideration, as further evaluated in section 4.4.

LIMPOPO Limpopo Spatial **Development Framework** NSDF & Limpopo SDF Growth Point Comparison Border Posts Main Towns Limpopo SDF Growth Points, 2016 Vhembe District Provincial Growth Point District Growth Point Municipal Growth Point Rural Node/Service Point NSDF Functional Town Hierarchy NSAA, 2021 National Urban Regional Development Railways District Municipalities Local Municipalities Province Nature Reserves Sources: Municipal Dema **Fhlanzeni District Bojanala District** Nkangala District Gauteng Contact: City of Tshwa ne District West Rand District Ekurhuleni District City of John 01

Gert Sibande District

Figure 41: Comparison of NSDF and LSDF 2016 Nodal Hierarchy

lokwane : 015 287 6000

4.4 Measuring Achievements

The LSDF, 2016 defined a hierarchy of nodes comprising of provincial growth points, district growth points, municipal growth points and local service points across the provincial space. The various individual district and local SDFs had to adopt and implement the LSDF nodal hierarchy. In order to measure the implementation thereof, a comparison was made between the nodal hierarchies proposed in the five respective district SDFs as discussed in section 2.6 and the LSDF. A visual representation of the comparison in nodal hierarchies are showed in Figure 42.

It is evident that there is strong alignment at tiers 1 and 2 and that the provincial and district growth points identified in the LSDF, were adopted on municipal level.

There are slight differences in the hierarchy allocated to tiers 3 and 4, but the selection of towns/ settlements is mostly aligned. The District Municipalities tend to allocate a higher number of nodes than the LSDF.

Following the adoption of the LSDF, 2016, provincial government adopted a provincial nodal strategy to implement the LSDF nodal hierarchy. The strategy adopted was to prioritise the allocation of public funds according to the hierarchy, therefore firstly to the highest order nodes. The ten provincial growth points identified in the LSDF were adopted as the Provincial Growth Point Programme.

However, the Province has seen little success over the past ten years in implementing the growth point programme. The weakness in the implementation of the growth point programme has been the lack of dedicated funding and absence of bankable projects or investment book for the growth point municipalities. As a result, the LDP indicates that five of the ten provincial growth points – one municipality per district – will be prioritised during the current LDP term (2020-2025). The five priority provincial growth points for this administration are:

- Lephalale in the Waterberg District
- Polokwane in the Capricorn District
- Musina-Makhado Corridor in the Vhembe District
- FetakgomoTubatse in the Sekhukhune District
- Tzaneen in the Mopani District

Clearly, the implementation aspect to realise growth in the prioritised areas need to be unpacked in the review of the LSDF.

Further to the above, although the LIIMP recognised the growth points in the LSDF, it assigned its own nodal hierarchy based on population and economy size. Refer to section 2.5.6.

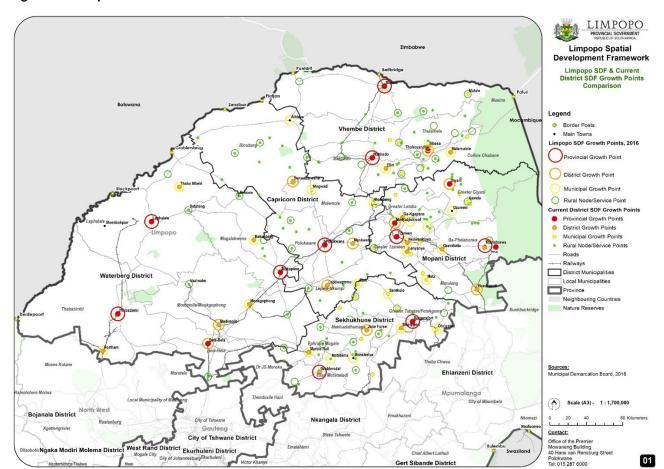


Figure 42: Comparison of LSDF 2016 and District SDF Nodal Hierarchies

Within the nodal areas, strategic development areas were defined that were a culmination of the urban edges, intervention areas, strategic development areas etc from the various municipal SDFs. The actual land development experienced since 2016 were measured against the planned development areas. What was evident, is that formalised land development respected the SDF policy framework for urban edges, but the challenge experienced by a large number of municipalities is the increasing rural densification along urban peripheries, development corridors on traditional or communal owned land. The rural expansion experienced at low densities, are significant and mostly outside of the planned urban edges or strategic development areas. The implementation of the SDF principles and framework is therefore not fully realised in traditional areas.

The realisation of spatial restructuring was prioritised to the provincial priority housing projects. Since 2016, progress was reported with the construction of the Marapong CRU, Bendor Extension 100 and bulk infrastructure to Joe Slovo Integrated Human Settlements. However the catalytic impact of these projects has not been realised as yet as spatially envisioned. Overall, the progress with implementation has been slow.

The same applies to the four SEZs recommended in the LSDF of 2016, namely Musina-Makhado, Tubatse, Polokwane and Lephalale. Only the Musina-Makhado SEZ has measured progress in terms of planning and not in terms of spatial impact as yet. The feasibilities for the other SEZs have not be confirmed. The LDP 2020-2025 noted the Musina-Makhado as the only SEZ, with Tubatse to become an industrial hub.

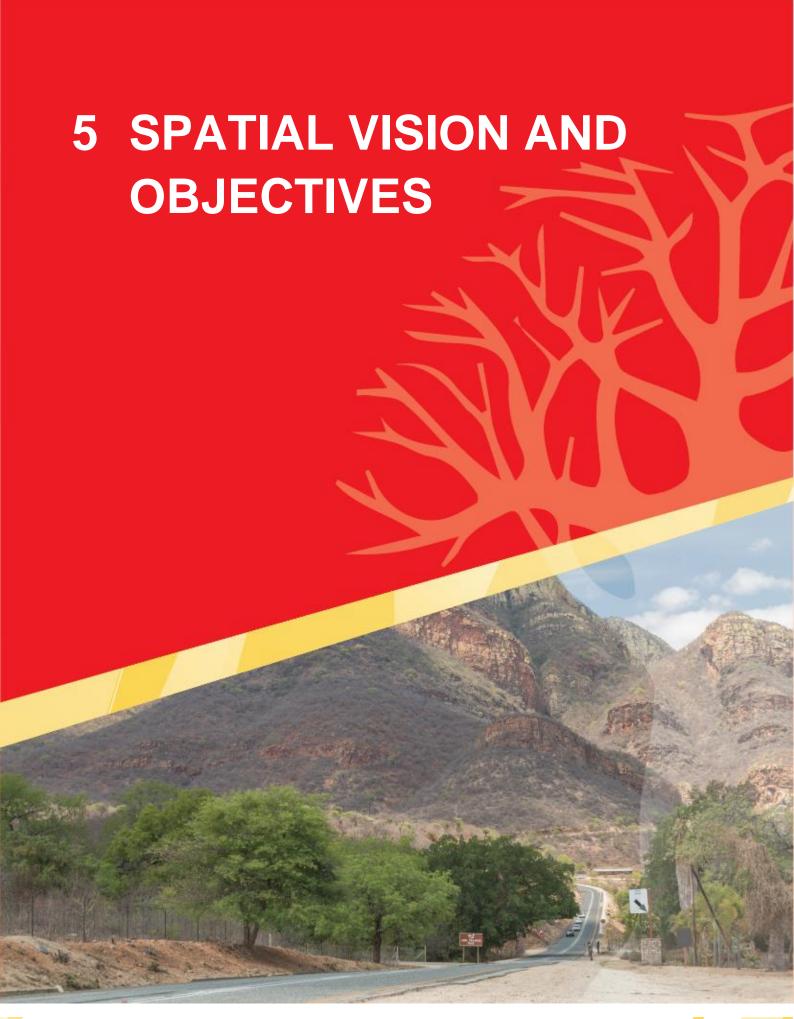
The evaluation of the relative slow progress with the implementation of the strategic projects revealed the lack of adequate conceptualisation of projects with proven feasibilities, business cases and well-defined funding models and implementation plans. Without these, the allocation of public funding to these initiatives are constrained. The LDP also recognised this weakness in the delivery across the Province and recommended the establishment of a project preparation unit in the Province.

4.5 Updating the LSDF

From the review, it was found that the LSDF vision and development objectives are still largely relevant. There is, however, room for updating and improving the LSDF, particularly due to strategic decisions and policy shifts taken since, the formulation of the NSDF, the revision of the LDP, and the revisions of the majority of District and Local Spatial Development Frameworks that require consolidation within a provincial spatial overview and strategy.

In particular, the preceding policy review and assessment of the LSDF 2016 have highlighted the need to update the following components of the LSDF:

- Incorporate impact of climate change and make strategic recommendations to address/ mitigate/ avoid
- Identify new and effective tools/ strategies for integrated spatial planning and land use management between provincial and local government, as well as with traditional councils – how can collaborative governance with regards to land use planning, public investment, settlement patterns be incentivised?
- Update population statistics and growth projections with latest available information
- Identify means to speed up land reform to stabilise land tenure in the Province
- Review the nodal hierarchy in line with the NSDF and inputs from District SDFs
- Assess the phenomenon of middle to high-income rural densification mainly along urban peripheries and roads and provide spatial development guidelines.
- Incorporate the national programmes instituted since the LSDF, 2016 was developed such as the PHSHDAs, Revitalisation of Distressed Mining Communities, Small Town Revitalisation Strategy, Revitalisation of Industrial Parks, etc. The role of the PHSHDA development plans in relation to the SDFs should be clarified.
- Incorporate the LDP 2020-2025 that was developed and adopted in the interim, and consider how the LSDF could contribute to the LDP targets
- Update recommendations with regards to water management, infrastructure provision and large-scale industrial development taking cognisance of national priority projects and the additional SIPs promulgated.
- Consider a viable model to support increasing quality of life for residents in densely populated rural areas
- Review LSDF proposals for relevance and practicality, while leaving room for localisation at district and local level
- Incorporate the LDP vision to equip residents for, and take full advantage of the fourth industrial revolution
- Consider the LDP recommendations to grow the waste economy
- There is a need for a stronger Monitoring and Evaluation framework in order to track implementation progress and impact. This include revisiting the LSDF Implementation Plan to give effect to the spatial targeting principle, improved project business cases and buy-in by all stakeholders, especially traditional authorities



5.1 Spatial Vision

A visioning workshop was held with representatives across the Province on 23 August 2022. The principle was to anchor the spatial vision to the LDP, 2020-2025 vision for the Province.

During the visioning workshop, it was firstly agreed that the LSDF, 2016 vision remains relevant, namely:

The Limpopo PSDF envisions a provincial spatial structure where the natural environment and valuable agricultural land are protected for future generations, with a strong, diverse and growing economy, and that offers its residents high quality living environments and good job opportunities.

Secondly, it was noted that there is a need to supplement the above vision with the following elements mainly derived from the LDP and NSDF:

- Contribute to realisation of the NSDF
- Good stewards of the environment
- Industrial development
- 4IR
- Climate change
- Food security
- Innovation
- Energy generation
- Mining
- Job opportunities
- Inter-regional and regional linkages to enhance links with growth points and SADC
- Spatial transformation and restructuring; create structure in Traditional Areas/ rural areas, particularly due to the large extent thereof in the Province
- Development of human resources

To address this, this Limpopo Spatial Vision of 2016 was retained, and the above issues were captured in the Provincial Spatial Outcomes.

5.2 Provincial Spatial Outcomes

The National Spatial Outcomes put forward in the NSDF have been contextualised for Limpopo as follows, also taking into account the LSDF Vision and the aspects that stakeholders agreed should be added to the spatial vision for Limpopo:

Provincial Spatial Outcome One

A network of consolidated, transformed and well-connected urban nodes, regional development anchors and rural service centres that enable Limpopo to derive maximum transformative benefit from urbanisation and concentrated rural settlements, enabling climate change adaptation, inclusive economic development and equal, effective and efficient access to social services in support of equitable and inclusive provincial human capital development.

Provincial Spatial Outcome Two

Provincial-scale corridors and productive rural regions enable sustainable livelihoods supported by economic diversification through green industrialisation and participation in the Fourth Industrial Revolution, mutually beneficial urban-rural linkages, and wise management, nurturing and conservation of ecological assets and ecosystem services.

Provincial Spatial Outcome Three

Provincial connectivity and movement infrastructure systems are strategically located, extended and maintained, to support a diverse, ecologically sustainable, adaptive, regenerative and inclusive economy, and a set of key provincial, national and regional gateway cities and towns.

Provincial Spatial Outcome Four

Productive rural regions are supported by sustainable resource economies and strong and resilient regional development anchors provide effective, efficient and equitable access to people living in rural areas to the provincial, national and global economy.

Provincial Spatial Outcome Five

The provincial ecological infrastructure and natural resource foundation are well-protected and managed, to enable climate change mitigation and sustainable and equitable access to water, high-potential agricultural land, minerals and other natural resources, both for current and future generations.

5.3 Provincial Spatial Development Objectives

The Development Objectives contained in the LSDF 2016 are the following:

- Capitalise on the Province's strategic location within the SADC region;
- Capitalise on, and improve regional and local connectivity;
- Provide a strategic and coherent rationale for public sector investment, including engineering, community and economic infrastructure, to optimise service delivery;
- Encourage urban and rural spatial restructuring as a necessity;
- Aggressively protect and enhance the Province's natural resources, including scarce fresh water sources and high biodiversity landscapes;
- Guard valuable agricultural land as a scarce resource and national asset;
- Consolidate and enhance the Province's ecotourism product;
- Encourage and institutionalise the sustainable development of its massive mineral potential (and encourage green economy initiatives); and
- Create an enabling environment for both large- and small-scale business development (retail, office, commercial, industrial).

Taking cognisance of the revised Provincial Spatial Vision and Provincial Spatial Outcomes, the Provincial Development Objectives are amended as follows:

- Capitalise on the Province's strategic location within the SADC region to facilitate trade links and regional cooperation on resource sharing;
- Capitalise on, and improve regional and local connectivity to establish a connected network of nodes and settlements;
- Provide a strategic and coherent rationale for public sector investment, including engineering, community and economic infrastructure, to optimise service delivery;
- Encourage urban and rural spatial restructuring to address spatial injustice and facilitate climate change mitigation and adaptation;
- Aggressively protect and enhance the Province's natural resources, including scarce fresh water sources and high biodiversity landscapes;

- Guard valuable agricultural land as a scarce resource and national asset;
- Consolidate and enhance the Province's ecotourism product;
- Encourage and institutionalise the sustainable development of its massive mineral potential and encourage diversification and industrialisation through green economy initiatives; and
- Create an enabling environment for both large- and small-scale business development (retail, office, commercial, industrial).

Note: This section will be expanded to include a spatial concept as an extension of the Vision during Phase 4 (Spatial Proposals).



This report presents the outcomes of Phase 1 of the review of the LSDF 2016, including:

- A review of global, regional, national and provincial strategic direction provided by policies, frameworks and plans;
- A review of the elements of the LSDF 2016 that should be updated and refocused; and
- A spatial vision and objective for Limpopo, formulated with stakeholder input.

Phase 2 of the review of the LSDF 2016 will comprise an in-depth spatial analysis of the Province. The spatial analyses will be undertaken with an appreciation of the importance of *an integrated perspective and focus* on multi-sectoral analyses, inclusive of a biophysical, socio-economic and build environment analysis aligned to the Guidelines for the Development of Provincial, Regional and Municipal Spatial Development Frameworks and Precinct Plans (2017) issued by the Department of Agriculture, Land Reform and Rural Development (DALRRD). Conclusions will be drawn on issues such as:

- The major structuring elements such as functional economic region/s and development drivers;
- Development opportunities in the Province (a more in-depth economic analysis is considered); and
- Development constraints and issues to be addressed.

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