



**FEZILE DABI DISTRICT MUNICIPALITY
SPATIAL DEVELOPMENT FRAMEWORK
2025/2026**

Table of Contents

CHAPTER 1	15
1. Introduction	15
1.1 Background	15
1.2 Objectives of the Spatial Development Framework (SDF)	16
1.3 Review of the Spatial Development Framework	17
1.4 METHODOLOGY	17
1.4.1 Internal Sector Plans	18
1.4.2 External Sector Plans	18
1.5 SDF Compilation	18
1.6 Contents of the Spatial Development Framework	19
1.7 The Study Area	19
1.7.1 The Free State Province	19
1.8 The Fezile Dabi District Municipality	21
1.9 The Cross Border Districts, the Region and the Local Municipalities	23
1.10 Connection with Other Municipalities	24
1.11 The Economic Development Sectors	25
CHAPTER 2	26
2. The Legal Framework and Policies	26
2.1 Alignments	27
2.2 The Integration and Trade-Offs Of the of the sector policies and plans	28
2.3 Different Sector Plans for the SDFs	29

2.4 International Policies.....	30
2.5 The National Legislation and Policies.....	31
2.6 The Spatial Planning Categories (SPCs)	36
CHAPTER 3.....	48
3. The Status Quo and Situation Analysis	48
3.1 The Fezile Dabi District SWOT Analysis	48
3.2 The Proposed Spatial Vision.....	51
3.3 The Local Municipalities, Spatial Overview	53
3.3.1 Metsimaholo Local Municipality (Fs204).....	53
3.3.2 Moqhaka Local Municipality (FS 201).....	55
3.3.3 Ngwathe Local Municipality (FS 203)	57
3.3.4 Mafube Local Municipality (FS 205): Mafube is a Sesotho name meaning “dawning of the new day”	60
3.4 Settlement Types.....	62
3.5 Heritage Sites	65
3.6 Socio Economic Analysis.....	65
3.6.1 Demographic Overview.....	65
3.6.2 Population Distribution and Growth by Province.....	65
3.6.3 Population Distribution by Local Municipality	66
3.6.4 Distribution of population by Age Groups.....	67
3.6.5 Education.....	68
3.6.6 Health.....	71
3.6.7 Poverty.....	72
3.7 Built Environment.....	72

3.7.1 Housing	72
3.7.2 Energy Sources	73
3.7.3 Road Networks and Transportation	74
3.7.4 Roads Network.....	75
3.7.5 Airfields	78
3.7.6 Railways.....	79
3.7.7 Industries.....	79
3.7.8 Cemeteries	81
3.7.9 Landfill Sites	82
3. 8 Biophysical Analysis	84
3.8.1 Topography of the Study Area	84
3.8.2 Climate and climate change.....	86
3.8.3 Agriculture	86
3.8.4 Biodiversity and Ecosystem	91
3.8.5 Hydrology and Water Resources	95
3.8.6 The Soil / Geology	98
3.8.7 Mining.....	100
3.8.8 The Land Reform	101
CHAPTER 4.....	102
4 Spatial Proposals	102
4.1 The Spatial Proposals.....	102
4.2. Spatial Planning Tools, Elements and Developments.....	107
4.2.1 The Nodes (a variety of services and opportunities should be provided at the nodal points).....	107

4.2.2 The Hubs	108
4.2.3 Roads and Corridors	108
4.2.4 The Classification of Roads	113
4.2.5 Railways.....	115
4.2.6 Airfields	115
4.3 HUMAN SETTLEMENT AND HOUSING.....	115
4.3.1 Residential expansion in the Metsimaholo Municipality	116
4.3.2 Informal settlements and slums in Metsimaholo	116
4.4 The Urban Edge.....	116
4.5 Education.....	117
4.6 Health.....	118
4.7 The Environment.....	120
4.7.1 Environmentally sensitive areas in the Fezile Dabi District Municipality	120
4.7.2 Environmental problems that affect Fezile Dabi District Municipality	121
4.8 Agriculture	121
4.8.1 Proposals for the protection of Agricultural land	124
4.8.2 The following programmes are the programmes that the National Department of Agriculture and Forestry has embarked on in the district.....	124
4.9 Hydrology /Water - “Water Is Life”	125
4.10 Land Reform	126
4.11 Tourism in The Fezile Dabi District.....	126
4.11.1 Tourism attractions within municipalities	127
4.12 Mining.....	131

4.12.1 Regional Mining Activities.....	131
4.13 THE NATIONAL SPATIAL DEVELOPMENT FRAMEWORK (NSDF) – March 2022.....	132
4.13.1 The National Spatial Action Areas (NSAAs).....	132
4.14 FREE STATE; PROVINCIAL SPATIAL DEVELOPMENT FRAMEWORK (FSPSDF) -2025.....	141
4.15 VAAL RIVER SPATIAL DEVELOPMENT FRAMEWORK (VRRSDF)	144
4.15.1 THE VRRSDF SPATIAL DEVELOPMENT OBJECTIVES.....	149
CHAPTER 5.....	150
5. Spatial Development Framework.....	150
5.1 The Fezile Dabi District Municipality Spatial Development Framework	150
5.1 The Fezile Dabi District Municipality Spatial Development Framework	151
5.2 STRUCTURING ELEMENTS	151
5.2.1 Ranking of Urban Nodes linked to functionality	152
5.3 Economic Nodes.....	152
5.3.1 Specialised Economic Urban Nodes	152
5.3.2 Mining Nodes	152
5.3.3 Agricultural Nodes	152
5.3.4 Tourism Node.....	153
5.4 Classification of Nodes linked to functionality.....	153
5.5 Sasolburg, Vanderbijlpark and Vereeniging Urban Concentrations	156
5.6 Transportation Corridors Linked to Functionality.....	156
5.7 Different Levels of Connectivity.....	156
5.7.1 Primary Corridors (National Roads).....	157
5.7.2 Secondary Corridors (Provincial Roads)	158

5.8 Tourism Corridors	159
5.9 Internal Streets	160
5.10 Development Guidelines and Marketing of Corridors.....	160
5.11 Infrastructure Development	161
5.12 Agricultural Development	161
5.13 Land Reform	162
5.14 Tourism	163
5.15 Tourism focus areas.....	163
5.16 Vaal River Tourist Zone	163
5.17 Tourism Nodes	163
5.18 Agricultural Nodes	163
5.19 Mining Nodes	163
5.20 Classification of Nodes and their economic significance.....	164
5.21 Sasolburg a Large Town (Node).....	164
5.22 Parys -Node	164
5.23 Kroonstad- Node.....	165
5.24 Frankfort – Node	165
5.25 The Vaal River	165
CHAPTER 6.....	166
6. Implementation Plan	166
6.1 Agriculture	174
6.2 Guidelines for the implementation plan	175
6.3 Residential Development.....	175

6.4 Commercial and Industrial Development	176
6.4.1 Principles	176
6.4.2 Proposed Incentives for Investors	176
6.5 Informal Trading.....	176
6.6 Homebased Activities	177
6.7 The implementation of the SDF should address four aspects which are:.....	177
6.8 Recommendations.....	178
6.9 Capital Expenditure Framework (CEF).....	178
GLOSSARY OF TERMS	180

List of Tables

Table 1: Municipalities in Fezile Dabi District Municipality - Source, Census 2022	22
Table 2: Towns and settlements in the Fezile Dabi District Municipality	22
Table 3: Spatial Planning Categories Guidance	37
Table 4: Spatial Planning Categories Application.....	38
Table 5: Population Distribution and Growth by Province, Census 2011 and Census 2022	65
Table 6: Population Distribution and growth rate per Local Municipality in Census 2011 and CS 2022	66
Table 7: Distribution of population by municipality and broad age groups, Census 2022	67
Table 8: Population Estimates for the Fezile Dabi District Area	68
Table 9: Free State education facilities by type in the Fezile Dabi District Municipality	68
Table 10: Types of dwellings	72
Table 11: Local Municipal Landfill Information, Source: Local Municipal SDFs and municipal officials.....	82
Table 12: Agricultural production per Local Municipality	87
Table 13: Main agricultural activities and production per district municipality in the Free State (PSDF 2017).....	89
Table 14: Examples of components of transport connectivity at scalar level	111
Table 15: Health Facilities within Fezile Dabi District (Source Department of Health District Plan Free State 2024/2025).....	118
Table 16: An overview of the Actions required in the National Spatial Action Areas in accordance with four of the NSDF Sub-Frames	133

Table 17: Classification of nodes within Fezile Dabi District Municipality	153
Table 18: Main areas of production per product in the commodity in the Free State Province	162
Table 19 Implementation of the Spatial Development Framework	166

List of Figure

Figure 1: Fezile Dabi District Municipality Economic Sectors	26
Figure 2: Alignment & Intergration of the SDF	28
Figure 3: Sector Plans for the SDF	29
Figure 4: Sustainable Development Goals	31
Figure 5: Spatial Principles	33
Figure 6: Spatial Themes of the Status Quo	51
Figure 7: The Local Municipal Population Density	62
Figure 8: Distribution of Population by broad age groups per municipality	68
Figure 9: Movement, Connections & Flows - National Connectivity (Source: NSDF 2050)	78
Figure 10: Spatial Proposal Matrix.....	102
Figure 11: The example of the Urban Edge (The Western Cape Provincial Urban Edge Guideline: December 2005, page 9)	117
Figure 12: 10 Leading Causes of Death in the District.....	119
Figure 13: National Spatial Action Areas (Source – NSDF 2050)	134
Figure 14: Central Innovation Belt Overview	135
Figure 15: Central Innovation Belt Towns.....	136
Figure 16: National Resource Risk Area.....	137
Figure 17: Upper Vaal River Catchment.....	138
Figure 18: National Urban Spatial Transformation and Economic Transition Regions	139
Figure 19: Gauteng National urban Spatial Transformation and Economic Transition Region	140
Figure 20: Vaal Urban Core Subregion.....	146
Figure 21: The Dome-Parys Subregion.....	147
Figure 22: The Hinterland Subregion.....	148
Figure 23: The Maize Value Chain, maize is value added.....	174

List of Maps

Map 1: The Free State Province and the Districts	20
Map 2: Fezile Dabi District Municipality	21
Map 3: Fezile Dabi and the surrounding districts	25
Map 4: Metsimaholo Local Municipality (Sesotho name Metsimaholo means “big waters”)	53
Map 5: Moqhaka Local Municipality	55
Map 6: Ngwathe Local Municipality	57
Map 7: MAFUBE LOCAL MUNICIPALITY	60
Map 8: The Free State Province Settlements Map	63
Map 9: The Fezile Dabi Settlements Patterns	64
Map 10: The Schools in the Fezile Dabi District	70
Map 11: The Health Facilities in the Fezile Dabi District.....	71
Map 12: The Fezile Dabi Roads Network	74
Map 13: Free State Transport Routes	77
Map 14: The Fezile Dabi Topography	85
Map 15: The Agricultural Potential in Fezile Dabi	88
Map 16: Agricultural regions of the Free State (PSDF 2017).....	90
Map 17: Biodiversity Plan with Protected Areas	91
Map 18: The Biomes in Fezile Dabi.....	93
Map 19: The Vegetation in Fezile Dabi	94
Map 20: The Water Bodies in Fezile Dabi.....	95
Map 21: The Soil Forms in Fezile Dabi	99
Map 22: The Mining Areas in Fezile Dabi.....	100
Map 23: Transport and Movement Networks	110
Map 24: The Roads linked to functionality	114
Map 25: The Agricultural Potential in Fezile Dabi	121
Map 26: High Potential Agricultural Land.....	123
Map 27: Tourism in the Fezile Dabi District.....	130
Map 28: The Spatial Development Framework	150

ABBREVIATIONS

AH	Agri-Hub
AP	Agri-Park
ARC	Agricultural Research Council
AQMP	Air Quality Management Plan
BEE	Black Economic Empowerment
BPFSP	Biodiversity Plan Free State Province
CASP	Comprehensive Agriculture Support Programme
CBA	Critical Based Areas
CBD	Central Business District
CBO	Community Based Organisation
COGTA	Cooperative Governance and Traditional Affairs
CRDP	Comprehensive Rural Development Programme
CSIR	Council for Scientific and Industrial Research
DAFF	Department of Forestry and Fisheries
DESTEA	Department of Small Business Development Tourism and Environmental Affairs
DM	District Municipality
DALRRD	Department of Agriculture, Land Reform and Rural Development
DBSA	Development Bank of South Africa
DESTEA	Department of economic, small business development, tourism and environmental affairs.

DTI	Department of Trade and Industry
DWAF	Department of Water Affairs and Forestry
DDM	District Development Model
DR	Dependency Ratio
EAP	Economically Active People
EMF	Environmental Management Framework
EIA	Environmental Impact Assessment
FDDM	Fezile Dabi District Municipality
FDC	Free State Development Cooperation
FPSU	Farmer Production Support Unit
FS	Free State
FSGDS	Free State Growth and Development Strategy
GIS	Geographic Information System
GDP	Gross Domestic Product
GGP	Gross Geographic Product
Ha	Hectare
HAD	Housing Development Agency
HLH	Harrismith Logistics Hub
ICT	Information Communication Technology

IDC	Industrial Development Cooperation
IDT	Independent Development Trust
IDP	Integrated Development Plan
IEM	Integrated Environmental Management
IGR	Intergovernmental Relations
ITP	Integrated Transport Planning
IUDF	Integrated Urban Development Framework
LED	Local Economic Development
LM	Local Municipality
LUMS	Land Use Management System
MTSF	Medium Term Strategic Framework
MPT	Municipal Planning Tribunal
NDF	National Development Fund
NDP	National Development Plan
NSDP	National Spatial Development Perspective
NGO	Non-Governmental Organisation
NYDA	National Youth Development Agency
PPP	Public Private Partnership
PSDF	Provincial Spatial Development Framework

R&D	Research and Development
RDP	Reconstruction and Development Program
REID	Rural Enterprise and
RUMC	Rural Urban Market Centre
SAHRA	South African Heritage Council
SANRAL	South African Roads Agency Limited
SAPS	South African Police Service
SEA	Strategic Environmental Assessment
SEZ	Special Economic Zone
SWOT	Strength Weakness Opportunities Threat
SMME	Small Micro Medium Enterprises
SPLUMA	Spatial Planning and Land Use Management Act
SDF	Spatial Development Framework
Stats SA	Statistics South Africa
SPC	Spatial Planning Categories
SPISYS	Spatial Planning Information System
UNESCO	United Nation Education Scientific Cultural Organisation
VTAPA	Vaal Triangle Airshed Priority Area
WMA	Water Management Area

CHAPTER 1

1. Introduction

Chapter 4 of the Spatial Planning and Land Use Management Act 2013 (SPLUMA), Act No. 16 of 2013, requires municipalities to prepare the Spatial Development Frameworks (SDF). Chapter 5 of the Municipal Systems Act (MSA), No. 32 of 2000 read with Chapter 2 of the Local Government Municipal Planning and Performance Regulations, 2001 also gives directive and regulations to municipalities to formulate and implement the SDF. Section 26(e) of MSA requires the IDP of a municipality to reflect a Spatial Development Framework which should include the provision of basic guidelines for Land Use Management for the municipality. Tribunals or any authority mandated to make land development decisions may not make decisions which are inconsistent with the Municipal Spatial Development Framework according to SPLUMA.

1.1 Background

Spatial planning, land development and land use management are guided and directed by a number of national, provincial, municipal legislations and policies. The SDF is reviewed and crafted on the background of the inter- governmental relations of the three spheres of government and alignment with the municipal plans, laws and policies of the provincial departments, national departments and the private sector inputs.

The SDF of a municipality plays an important role in the spatial transformation following the end of the previous planning of the apartheid era in South Africa. During the apartheid “separateness” era, the land was used as tool to segregate and separate the South Africans along racial and socio-economic lines. Different races were resided in different residential areas and businesses according to colour, race and status. The apartheid planning was characterised by spatial injustices, fragmented planning, imbalances, exclusivity and inequality. The black limitations of access to the resources, forced removals and relocations of the black people to the so called “homelands” and the outskirts of the towns and cities was practised. A large section of the population was excluded from the socio economic and environmental benefits of the country. The highways, industries, national roads, railway lines, rivers, valleys, open stretch of fields etc., and some of these buffer zones are still present in many areas. The resources of the country were not equally, and fairly distributed, Black people were resided at the remote, neglected areas. This was enforced through the Group Areas Act No. 41 of 1950. This led to poverty and destruction of communities and the discontentment of the discriminated communities. The Act was later repealed in the 1990s during the advent of democracy when the new laws were introduced.

In keeping with the principles of SPLUMA No.16 of 2013 section 7 (a – e) and the requirements section 12 (1, 2, 5 & 6), section 20 this SDF, seeks to promote development that will address the spatial legacies of apartheid planning that prevailed pre 1994 and strive to promote social, economic and environmental transformation and sustainability. The framework will serve as a guide to long term spatial development, decision making identifying and directing where the public money should be allocated for spatially targeted investments.

1.2 Objectives of the Spatial Development Framework (SDF)

The objectives of the Fezile Dabi District Municipality SDF are as follows:

- Correction of historically distorted spatial patterns
- Promotion of spatial integration and breaking down of spatially constructed barriers
- Promotion of a combination of diverse land uses in support of each other.
- Discouragement of urban sprawl, promotion of more compact towns.
- Optimization of the existing resources, including bulk infrastructure
- To guide development in the district Municipality for long term sustainable growth.
- To enable socio- economic development through spatially targeted interventions and guiding land use development.
- To promote sustainable inclusive human settlements
- To protect the environment and the ecosystems
- Protection and preservation of agricultural land from other land uses.
- To protect the prime agricultural land from illegal uses and unacceptable uses
- Identifying untapped opportunities in agriculture and the land.
- To ensure that facilities for national, provincial and municipal services are catered for spatially
- To promote community participation
- To ensure service delivery and infrastructure development
- To guide and stimulate local economic development
- To attract investments from the private sector.
- To promote good governance

1.3 Review of the Spatial Development Framework

The SDF covers a period of five years, and it will be reviewed and revised simultaneously with the IDPs to update the information. The review will consider changes in sector plans and programs of government, and it will also be aligned with the other updated programs of the District. The SDF will also be evaluated and assessed and the changes recommended for improvement during the evaluation will be taken into consideration as required.

1.4 METHODOLOGY

A broad and extensive consultative process was embarked on to compile the Fezile Dabi District Municipality SDF. The guidelines for the compilation of the SDF by Department Cooperative Governance and Traditional Affairs (COGTA) Free State on compiling, review or amendment of the SDF were also followed as well as the DALR&RD guidelines. The following were consulted to outsource information for the SDF;

- Desktop study whereby readily available information of the existing documents, maps, reports, and other published sources were reviewed.
- Interviews with different units' officials in the Fezile Dabi District Municipality were conducted
- Departmental Sector plans of the Fezile Dabi District Municipality
- Interviews with the Local Municipal Officials
- Interviews with the Free State Sector Departments Officials
- Interviews with private consultants
- Fezile Dabi District IDP2024/2025
- Fezile Dabi SDF 2013
- Local Municipal SDFs
- Neighbouring Districts SDFs (Sedibeng SDF)
- Draft Provincial Spatial Development Framework (2017)
- Draft Vaal Regional Spatial Development Frameworks
- National Spatial Development Framework
- District Development Model One Plan

1.4.1 Internal Sector Plans

- Fezile Dabi Air Quality Sector Plan (2010)
- Fezile Dabi Disaster Management Plan (2014)
- Fezile Dabi Integrated Waste Management Plan 2011 (IWMP)
- District Development Model One Plan

1.4.2 External Sector Plans

- Rural Development Plan – Fezile Dabi District Municipality 2017
- Free State Agriculture Master Plan 2015
- Free State Biodiversity Plan 2017
- Free State Province Spatial Development Framework 2017 (PSDF)
- National Spatial Development Framework 2018 (NSDF)
- Draft Free State Spatial Development Framework
- Draft Vaal River Regional Spatial Development Framework (VRRSDF)
- National Spatial Development Framework

A District Project Steering Committee was formed according to the guidelines and terms of reference compiled by COGTA. This committee was established according to the Free State Spatial Planning Bill section 9(1) of the generic Land Use Planning By-Law. The responsibility of the committee is to oversee and facilitate the Spatial Development Framework compilation exercise, review or amend the Spatial Development Framework.

1.5 SDF Compilation

- **Phase 1** Start up
- **Phase 2** Policy Context
- **Phase 3** Status Quo, Situation Analysis, Draft Vision
- **Phase 4** Public Participation Process
- **Phase 5** Spatial Proposals
- **Phase 6** Implementation Plan
- **Phase 7** Approval of Draft and final SDF

1.6 Contents of the Spatial Development Framework

Chapter 1 Introduction and Background

Chapter 2 Legal Framework

Chapter 3 Status Quo and Short-Term Vision

Chapter 4 Spatial Directives

Chapter 5 Spatial Development Framework -SDF

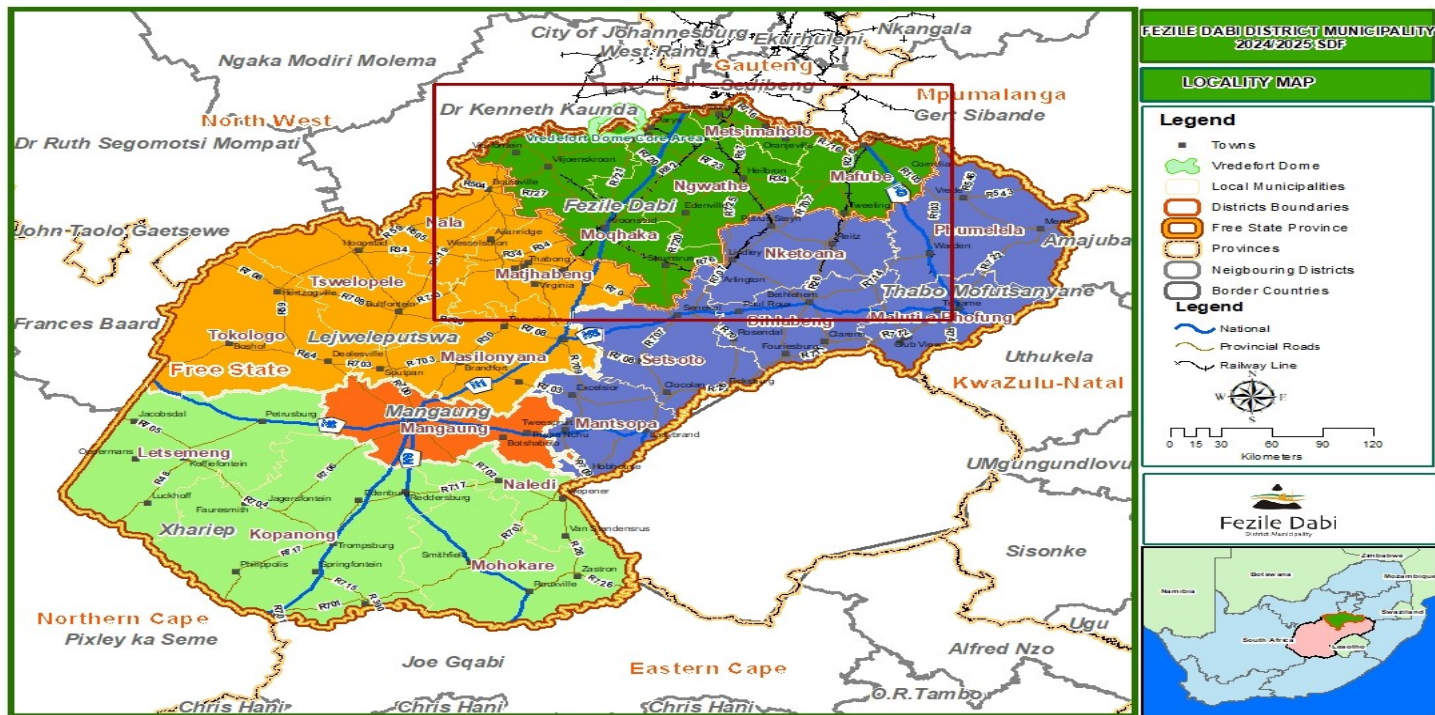
Chapter 6 Implementation of the Spatial Development Framework (SDF).

1.7 The Study Area

1.7.1 The Free State Province

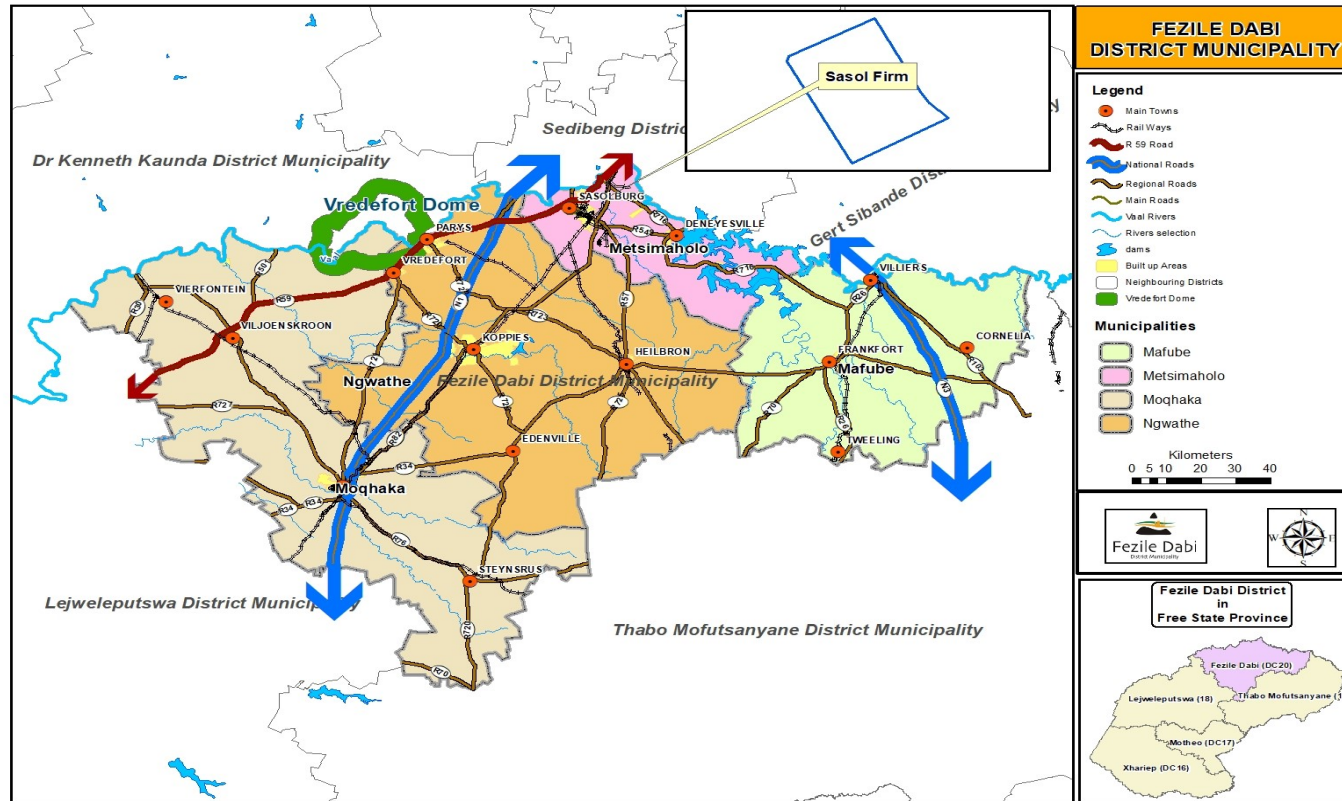
The Free State Province is the 3rd largest province in the Republic of South Africa with a total area of 129825 km². It is a rural province with farmlands, mountains, mines and widely spread towns. The Free State Province has the second lowest population and the lowest population density in the country. The Free State Province has one Metropolitan Municipality and four (4) districts municipalities. The Metro is the Mangaung Metro where the city of Bloemfontein is located. Bloemfontein is known as the “judicial capital” of the country because it the home of Supreme Court of Appeal.

The 4 districts are Lejweleputswa, Thabo Mofutsanyane, Xhariep and Fezile Dabi. The district municipalities are further subdivided into 18 local municipalities. The other big towns in the Free State province are Welkom, Bethlehem and two of the Fezile District Municipality towns of Kroonstad and Sasolburg. The economy of the Free State Province is dominated by agriculture, mining and manufacturing. The Free State Province is known as the “**Bread Basket of South Africa**”, because of its grain production. The province produces other significant crops such as corn, maize, wheat and sorghum. The dominant language spoken in the Free State Province is Sesotho, followed by Afrikaans, Xhosa, Setswana and English.



MAP 1: THE FREE STATE PROVINCE AND THE DISTRICTS

1.8 The Fezile Dabi District Municipality



MAP 2: FEZILE DABI DISTRICT MUNICIPALITY

TABLE 1: MUNICIPALITIES IN FEZILE DABI DISTRICT MUNICIPALITY - SOURCE, CENSUS 2022

Municipality	Administration Seat	Municipal Code	Population	Category	Wards
Fezile Dabi District	Sasolburg	DC 20	509 912	C1	71
Metsimaholo	Sasolburg	FS 204	158 391	B	21
Mafube	Frankfort	FS 205	61 150	B	9
Moqhaka	Kroonstad	FS 201	155 410	B	22
Ngwathe	Parys	FS 203	134 962	B	18

The Fezile Dabi District comprises of four Local Municipalities, which are, namely Metsimaholo, Mafube, Moqhaka and Ngwathe Local Municipality. The District Municipality is named after the late Abram Fezile Dabi a South African Anti-Apartheid Activist born in Tumahole Parys, who was a Politician and a Writer who played an important role in the struggle fighting against apartheid regime in the area.

The Fezile Dabi District Municipality is also known as District Council 20 (DC 20) as determined by the Municipal Demarcation Board. The district municipality was formerly known as the Northern Free State District Municipality. The municipality was established in terms of the Municipal Structures Act (117 of 1998) and proclaimed in the Provincial Gazette, Notice No 184, on the 28th of September 2000. The Fezile Dabi District Municipality is the 2nd smallest district in the province making 16% of the geographical area of the Free State, which is 20 668km². It is classified as a category C1 municipality according to the Constitution of the Republic of South Africa. The Fezile Dabi District Municipality is a home to the giant synthetic firm known as Sasol firm which is a leader in the chemical and manufacturing industry.

TABLE 2: TOWNS AND SETTLEMENTS IN THE FEZILE DABI DISTRICT MUNICIPALITY

METSIMAHOLO MUNICIPALITY	MOQHAKA MUNICIPALITY	NGWATHE MUNICIPALITY	MAFUBE MUNICIPALITY
Sasolburg/Zamdela	Kroonstad/Maokeng	Parys/Tumahole	Frankfort/Namahadi
Deneysville/Refengkgotso	Viljoenskroon /Rammulotsi	Heilbron/Phiritona	Villiers/Qalabotjha
Oranjeville/Metsimaholo	Steynsrus /Matlwangtlwang	Koppies/ Kwakwatsi	Cornelia/Ntswanatsatsi
	Renovaal	Edenville /Ngwathe	Tweeling /Mafahlaneng
	Vierfontein	Vredefort /Mokwallo	

The Fezile Dabi District Municipality has 15 fifteen towns and 2 two settlements of Renovaal and Vierfontein in the Moqhaka Local Municipality. The towns of Fezile Dabi are nodal growth points and service centres to the inhabitants of the municipalities.

1.9 The Cross Border Districts, the Region and the Local Municipalities

The Fezile Dabi District Municipality area is bordered by the Vaal River and the VaalDam. The Vaal River separates the North West, Gauteng and the Mpumalanga Province from the Free State Province and the Fezile Dabi Distr. The Thabo Mofutsanyane District is on the South and the Lejweleputswa District in the West in the Free State Province. The following 5 districts municipalities and provinces surrounds and share borders with the Fezile Dabi District Municipality;

- **Gauteng Province - Sedibeng District Municipality**
 - ❖ Emfuleni Local Municipality
 - ❖ Lesedi Local Municipality
 - ❖ Midvaal Local Municipality

- **Mpumalanga Province - Gert Sibande District Municipality**
 - ❖ Dipaleseng Local Municipality
 - ❖ Lekwa Local Municipality

- **Free State Province -Thabo Mofutsanyane District Municipality**
 - ❖ Phumelela Local Municipality
 - ❖ Nketoana Local Municipality
 - ❖ Setsoto Local Municipality

- **Free State Province - Lejweleputswa District Municipality**
 - ❖ Matjhabeng Local Municipality
 - ❖ Nala Local Municipality

- **North West Province – Dr K.K. Kaunda District Municipality**
 - ❖ J.B. Marks Local Municipal

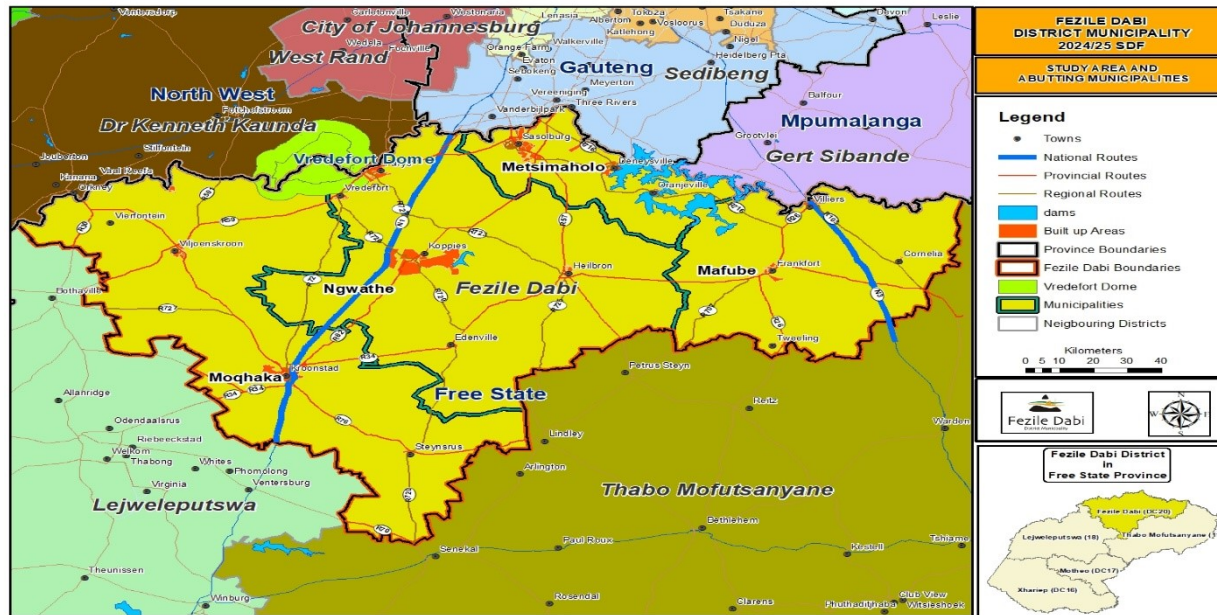
1.10 Connection with Other Municipalities

The Gauteng, Free State, North West and Mpumalanga provinces are straddled and cut across by the Vaal River which forms an important boundary for the provinces, the district municipalities and the local municipalities. The Fezile Dabi District municipality also shares the Vredefort Dome World Heritage Site (VDWHS) which is partly in the Moqhaka and Ngwathe Local Municipalities respectively with the J.B Marks Local Municipality in the Dr K.K. Kaunda District Municipality in the North West province.

A number of facilities are shared among these three mentioned districts such as, tourism and the hospitality facilities, education facilities, health facilities, retail facilities, industrial facilities and many others. The Sasol petrochemical plant in Sasolburg provides employment for the skills offered by the workforce coming from the neighbouring provinces of Gauteng, North West, Mpumalanga and other provinces.

There are strong transport linkages and connectivity between the Fezile Dabi Districts and the other provinces by the means of the R57, R59 and the R76 regional roads, national roads of N1 and N3 and the R34 provincial road.

Having cited the above few common matters affecting the nearby district municipalities, it is obvious that there has to be a collaboration and alliances and memorandums of understanding between the municipalities to build the development in the region. The comparative and competitive advantage of each has to be recognized not in isolation so that they can gain strength and support from each other.



MAP 3: FEZILE DABI AND THE SURROUNDING DISTRICTS

1.11 The Economic Development Sectors

Manufacturing is one of the prominent economic sectors contributing to the economy of Fezile Dabi District. The district is characterized by a rural agricultural landscape whereby cattle and sheep farming as well as maize, sunflower, sorghum and wheat are the dominant crops. Fezile Dabi has a strong agricultural base, hence the district is known as **“the grain /maize basket of South Africa”**. The main economic Sectors in Fezile Dabi District Municipality are Manufacturing (27%), Finance (17%), Community services (16%), Mining (14%), Trade (8%) Agriculture (5%), Electricity (5%), Transport (5), Construction (2%), (Fezile Dabi 2nd Generation One Plan).

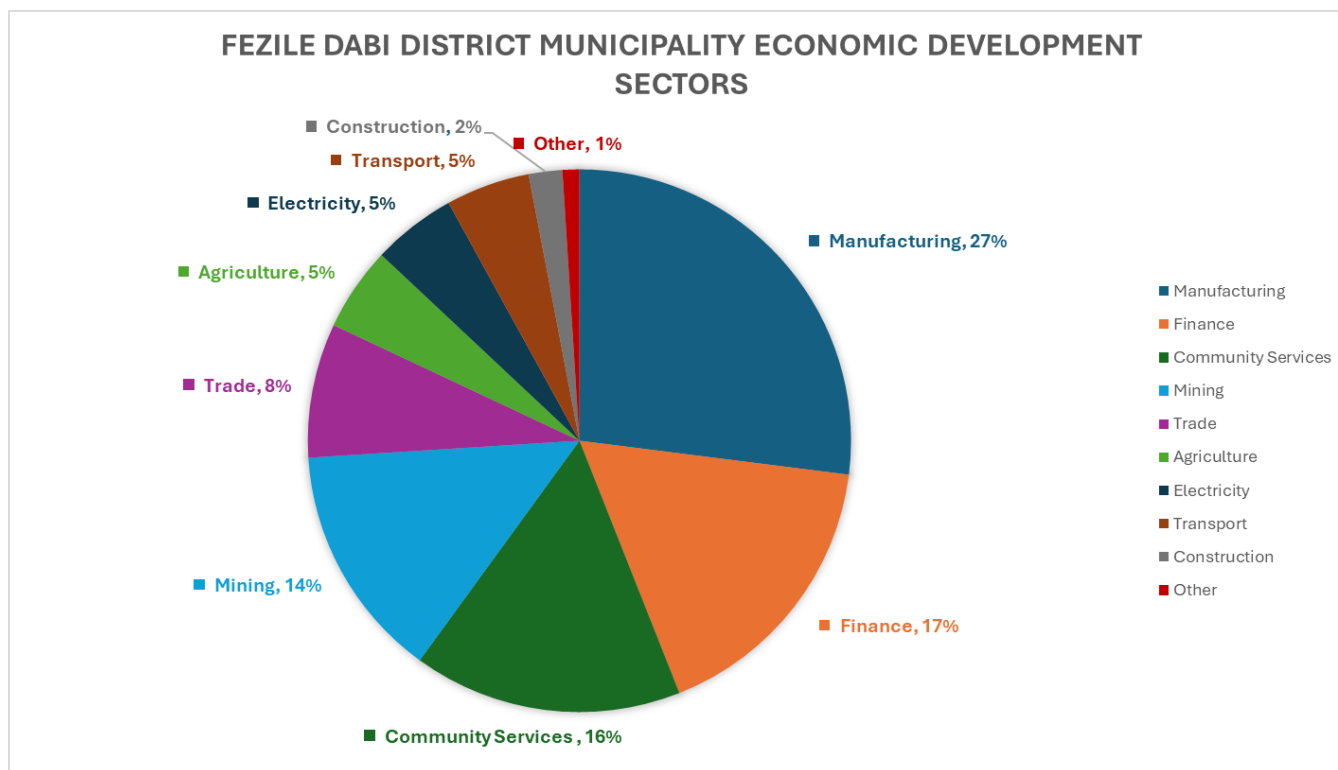


FIGURE 1: FEZILE DABI DISTRICT MUNICIPALITY ECONOMIC SECTORS

CHAPTER 2

2. The Legal Framework and Policies

The SDF derives its mandate from the national, provincial laws and municipal planning policies and guidelines applicable to spatial development and planning. In guiding the development of municipalities the SDF has to comply with the legislative requirements. Section 12(1) - (e), (m), (n) of SPLUMA gives a clear directive in this regard. A plethora of international and national legislations and agreements, policies and frameworks are used to guide the compilation of the SDFs.

2.1 Alignments

Vertical Alignment

The FDDM Vertical Alignment approach for the FDDM SDF is taken from the IDP of the Fezile Dabi District Municipality. The vertical alignment will be between the Fezile Dabi District Municipality and the neighbouring municipalities, the spheres of government and the private sector through the district municipality's IDP. Both the top down and the bottom-up approach will be used.

Horizontal Alignment

The Fezile Dabi District Municipality must ensure that its policies, legislation and plans integrate and aligns with the plans of other spheres of government at National, Provincial, District and Local Municipalities.

Examples of the main areas of focus will be on the following;

- Creating employment opportunities
- Biodiversity conservation, protection of the rivers, wetlands, parks, dams etc.
- Repair and maintenance of the road infrastructure linking municipalities
- Tourism
- Industries

The Fezile Dabi District Municipality SDF should integrate the national and provincial policies and legislation on the implementation of projects, plans and activities of land use. Various laws together with the by-laws of a municipality will be used to execute different land use activities. This will also be used to promote the SPLUMA principle of good administration and SPLUMA section 12 components or sub sections.

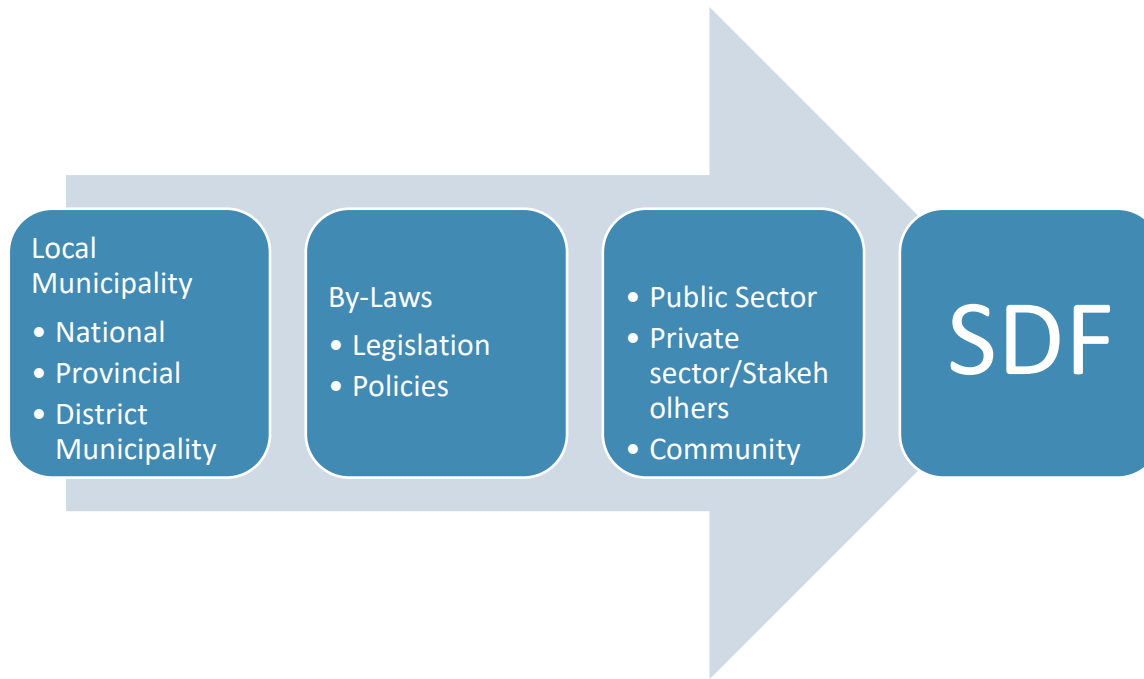


FIGURE 2: ALIGNMENT & INTERGRATION OF THE SDF

2.2 The Integration and Trade-Offs Of the of the sector policies and plans

A trade-off development is inevitable in spatial transformation and developments. A negotiation, compromise and a workable solution is recommended in order to achieve some plans and projects. A balance should be achieved between one or more conflicting plans, policies or strategies, for example a way can be made for economic development where environmental care is taking place, it is a “double edged nexus”.



FIGURE 3: SECTOR PLANS FOR THE SDF

2.3 Different Sector Plans for the SDFs

LED	Local Economic Development
SEA	Strategic Environmental Assessment
EMF	Environmental Management Framework
DM	Disaster Management
ITP	Integrated Transport Plan
WSDP	Water Services Development Planning

2.4 International Policies

Sustainable Development Goals (SDG) Agenda 2030

The Free State PSDF 2014, p106 “the South African government is a signatory to a number of international protocols, conventions and agreements. Consequently, all spheres of government are obliged to adopt and give effect to these protocols, conventions and agreements”

The SDG Agenda 2030 was formally adopted on the 25th of September 2015 by the United Nations General Assembly. 17 Goals were set to achieve development planning objectives and to achieve a sustainable future for all. Goal number 11 is about “Sustainable cities and Communities” that is achieving sustainable cities and communities, making cities and human settlements inclusive, safe, resilient and sustainable. Its objective is also to alleviate poverty, fight injustice and the climate change. It is projected that by 2030, 6 out of 10 people will be urban dwellers therefore cities have to be well planned, well managed and planned to promote sustainable development. Other goals are about eradicating poverty, promoting good health, the wellbeing and zero tolerance to hunger. To achieve sustainable development implies that a number of principles and factors need to be considered in the SDF, and these factors are the following:

- PARTICIPATION
- EQUITABLE ACCESS
- SUSTAINABILITY
- DIVERSITY AND GROWTH
- ADAPTABILITY

In the World Conservation Strategy, commissioned by United Nation Environmental Program (UNEP) the sustainable development is considered to be a set of tools and strategies which respond to five broad requirements, namely:

- a) Integration of conservation with development
- b) Satisfaction of basic human needs
- c) Achievement of equity and justice
- d) Provision of social self – determination and cultural diversity
- e) Maintenance of ecological integrity

(Source, The Free State PSDF 2014, p106).

.



FIGURE 4: SUSTAINABLE DEVELOPMENT GOALS

2.5 The National Legislation and Policies

The Constitution of South Africa 1996

Several constitutional imperatives are realised within the implementation of SPLUMA principles and the SPLUMA implementation in general. These imperatives are as follows:

- Section 24 of the constitution, to protect the environment so that it can benefit both the present and the future generations.
- Section 25 of the constitution, to ensure that property rights are protected and equitable access to land is gained by all.
- Section 26 of the constitution, to have a right to access adequate housing and have it protected.
- Section 27 of the Constitution, to have a right to access sufficient food, water, security and to protect the agricultural land.

Municipal Systems Act –MSA (Act 32 of 2000)

Chapter 5 of the Municipal System's Act section (26e) requires the SDF to be a component of the municipal IDP that provides basic guidelines for Land Use Management Systems (LUMS), for the municipality

Spatial Planning and Land Use Management Act, 2013(Act No.16 of 2013) (SPLUMA)

Chapter 2 of SPLUMA outlines the development principles that should be followed, applied and adhered to in spatial planning, land development, and land use management. These principles should be incorporated into the municipal SDF. These principles should be applied by all organs state and authorities responsible for the implementation of legislation regulating the use and development on land.

The principles are as follow:

a) The principle of spatial justice

- The principle should address and redress the past spatial injustices and other development imbalance through improved access to land.
- People and communities who were previously disadvantaged and excluded must be included through the SDFs and policies in all spheres of government.
- There must be flexible and appropriate land use management systems that includes all areas of a municipality such as disadvantaged areas, informal settlements and former homelands.
- Provisions that accommodate access to secure tenure and incremental upgrading of informal settlements must be included in in the land development procedures.
- Applications must not be impeded or restricted because of the value of land.

b) The principle of spatial sustainability

- The prime and unique agricultural land must be protected by means of special consideration, for example the protection of food security.
- The environmental management instruments must be used to uphold consistency of land use measures.
- To promote and stimulate the effective and equitable functioning of land markets
- To promote land development in locations that are sustainable an limit urban sprawl
- Result in communities that are viable

c) The principle of efficiency

- Land development that is optimising the use of existing resources and infrastructure

- Decision making procedures are designed to minimise negative financial, social, economic or environmental impacts
- Development application procedures are efficient and streamlined and timeframes are adhered to by all parties.

d) **The principle of spatial resilience**

- Flexibility in spatial plans, policies, and land use management systems are accommodated to ensure sustainable livelihoods in communities most likely to suffer the impacts of economic and environmental shocks

e) **The principle of good administration**

- All spheres of government ensure an integrated approach to land use and land use development
- All government departments must provide their sector inputs and comply with any other prescribed requirements during the preparation or amendment of spatial development frameworks
- Policies, legislation and procedures must be clearly set in order to inform and empower members of the public.



FIGURE 5: SPATIAL PRINCIPLES

Chapter 4, Section 12 of SPLUMA gives guidance on how to prepare spatial development frameworks. The chapter also guides on how to fulfil the requirements of the National SDF, Provincial SDF, Regional SDF and Municipal SDF.

Disaster Management Act, No. 57 of 2002.

The Disaster Management Act is a guiding and coordinating legislation ensuring an integrated and uniform approach to disasters by all organs of state and other role players.

National Environmental Management Act, 107 of 1998.

The Act provides for cooperative environmental governance by establishing rules, regulations and principles for decision making on matters affecting environmentally sensitive areas. It provides procedures to institutions for coordinating environmental functions exercised by organs of state and to provide for matters connected therewith.

National Environmental Management: Air Quality Act 39 of 2004 (AQA)

Section 3 of this act requires municipalities to develop Air Quality Management Plan (AQMP) that will manage and minimise air pollution.

Biodiversity Act 10 of 2004

The act has been drafted within the framework of the National Environmental Management Act, 107 of 1998. The act supports conservation of plant and animal biodiversity including the soil and water.

National Water Act of 1998 (Act No.36 of 1998):

The Act is about water management strategies and the protection of water resources.

National Infrastructure Plan 2012 (NIP)

The NIP sets out to create significant number of new jobs, strengthening service delivery and support the integration of African economies.

Municipal Finance Act (56 of 2003)

The rules and regulations of this Act promote the supervision over local government Finance management.

- Section 90(2a, b) deals with the management and disposal of public assets particularly the land.

Minerals and Petroleum Resources Development Act, 2002 (Act 28 of 2002) MPRDA

“To make provision for equitable access of the nation’s mineral and petroleum resources and sustainable development and to provide for matters connected therewith”. “To give effect to section 24 of the Constitution by ensuring that the nation’s mineral and petroleum resources are developed in an orderly and ecologically sustainable manner while promoting justifiable social and economic development “.

National Development Plan (NDP) Vision 2030

The objectives of the National Development Plan are to eliminate poverty and to sharply reduce inequality by 2030. Through the plan poverty and exclusion will be eliminated, the economic growth will be nurtured, opportunities will be expanded, capabilities will be built. It will also be involving communities in their own development. The plan aims to change and improve the lives of South Africans from the legacy of poverty left by apartheid to a decent and acceptable standard of living through the reduction of inequality.

The plan is set out to promote the following listed actions:

- Economy and employment
- Economic infrastructure
- Education, training and innovation
- Better human settlements
- Provision of water and sanitation, electricity
- Safe and reliable public transport
- Safety and security
- Building a capable state
- Clean environment
- Quality education and skills
- Quality health care for all
- Fighting corruption and enhancing accountability

In the urban areas, the key NDP recommendations are the following;

- Upgrading of all informal settlements to a suitable, well-located land by 2030.
- Increased urban densities to reduce urban sprawl.
- Substantial investment in safe, reliable and affordable public transport
- Better coordination among various modes of transport.
- A comprehensive review of the grant and a subsidy regime for housing to ensure diversity in product and finance option and spatial mix

- A focused strategy on the housing gap market, involving banks, subsidies and employer housing scheme
- The development of spatial compacts providing support services to the farming communities

Integrated Urban Development Framework (IUDF)

The IUDF is the government's policy that guides future growth and management of urban areas. It is also known as a national urban policy which marks the New Deal for South African cities and towns. It is about managing urbanisation and it achieves the goals of economic development, job creation and improved living conditions for the people. It responds to Goal 11 of the Sustainable Development Goals and various chapters of the NDP.

2.6 The Spatial Planning Categories (SPCs)

Six Spatial Planning Categories are to be considered as they identify and categorises the uses of areas according to the laws, policies and regulations. For example, in the Fezile Dabi district area, areas like the heritage sites, such as the Vredefort Dome and other protected areas should be maintained and protected according to the SPCs guide. These spatial planning categories will assist a municipality to categorise and conserve areas according to their identification, classification and importance. They limit and restrict the intrusion of non-compliant and disturbing land uses into sensitive and unintended areas.

TABLE 3: SPATIAL PLANNING CATEGORIES GUIDANCE

	A CORE	A.a	Statutory Protected Areas
	B BUFFER	B.a B.b B.c	Non-Statutory Conservation Areas Ecological Corridors Urban Green Areas
	C AGRICULTURAL AREAS	C.a C.b	Extensive agricultural areas Intensive agricultural areas
	D URBAN RELATED	D.a D.b D.c D.d D.e D.f D.g D.h D.i D.j D.k D.l D.m D.n D.o D.p D.q D.r	Main Towns Local Towns Rural Settlements Tribal Authority Settlements Communal Settlements Institutional Areas Authority Areas Residential Areas Business Areas Service Related Business Special Business SMME Incubators Mixed Use Development Areas Cemeteries Sports fields & Infrastructure Airport and Infrastructure Resorts & Tourism Related Areas Farmsteads & Outbuildings
	E INDUSTRIAL AREAS	E.a E.b E.c E.d E.e	Agricultural industry Industrial Development Zone Light industry Heavy industry Extractive industry
	F SURFACE INFRASTRUCTURE & BUILDINGS	F.a F.b F.c F.d F.e F.f F.g F.h F.i F.j F.k F.l	National roads Main roads Minor roads Public Streets Heavy Vehicle Overnight Facilities Railway lines Power lines Telecommunication Infrastructure Renewable Energy Structures Dams & Reservoirs Canals Sewerage Plants and Refuse Areas

TABLE 4: SPATIAL PLANNING CATEGORIES APPLICATION

Category	Description	Examples	Use/ Activity
A. <u>Core.</u> This category is consistent with UNESCO's biosphere reserve. It comprises of natural areas that are relatively undisturbed by human activities. These are areas of Biodiversity and Conservation.	A.a Statutory Protected Areas	• The Vredefort Dome, the rivers and dams and other environmentally sensitive facilities. • Rivers, wetlands, CBAs, catchment areas, etc.	• These areas are to be given a high protection and conservation status. • These areas are unique and irreplaceable. • Development must be controlled, and no unrelated uses should be permitted. • Only non- consumptive uses should be permitted.
B. <u>Buffer.</u> The Buffer area surrounds the Core area. It serves as buffer between Category A and C.	B.a Non-statutory Conservation Area	• Rivers like the Vals, Vaal, etc. must be protected from misuses and pollution.	• Also called the Transition Area • Promoting sustainable land uses. • Only Eco tourism should be practised in these areas. • Lessen impact of human activity
	B.b Ecological Corridors	• To protects all the rivers, tributaries, dams and Spruits in the district. • To protect the soils and vegetation.	

	B.c Urban Green Area	• Maintenance of parks within the district. • Small resorts for recreation can be built.	• Trees can be used as environmental buffers, to absorb CO2 and release O2 to the atmosphere. • The prescriptions of the National Water Act 36 of 1998 must be adhered to.
C. <u>Agricultural Areas.</u> This category is known as the “Co-operation area”. Land development should comply with sustainability.	C.a Extensive Agriculture	• Extensive farming can take place around Viljoenskroon area, between Koppies and Edenville.	• Extensive agriculture needs large quantities of land in order to be profitable
	C.b Intensive Agriculture	• Intensive Farming can take place around Koppies, isolated areas along the Vaal River & its tributaries. • Facilities like the Agri-hub • Intensive agriculture can be practiced in small holdings and plots.	• Intensive agriculture is usually situated in areas of high-water availability, along rivers and dams. • Grazing and livestock must be limited to the prescribed carrying capacity. The responsible Provincial Departments should be consulted in this regard. • Contrasting developments should be prohibited.

<u>D. Urban Related.</u> This category provides for a variety of urban settlements. Settlements differ in patterns, and they are accompanied by the infrastructure and employment opportunities. Rural settlements, leisure and tourism, SMME's facilities, cemeteries and many other amenities.	D.a Main Towns D.b Local Towns D.c Rural Settlements D.d Tribal Authority Settlements D.e Communal Settlements D.f Institutional Areas D.g Authority Areas D.h Residential Areas D.i Business Areas D.j Service-Related Business D.k Special Business D.l SMME Incubators D.m Mixed Use Developments Areas D.n Cemeteries	• Sasolburg, Kroonstad, Frankfort, Parys • Land Tenure Security in villages and for farm dwellers must take place,	• Sustainable resource utilization should be practised and promoted. • Negative environmental effects should be minimised. • Surface degradation, excessive waste generation and pollution must be minimized. • We must promote socially and environmentally sustainable developments.

	D.o Sports fields & Infrastructure D.p Airport and Infrastructure D.q Resorts and Tourism D.r Farmstead and Outbuildings	• A variety or different types of urban settlements are provided. Houses of different values, both rented and owned should share the space (social mix). • Densification and mixed land use should take place. • Institutions like churches, schools and library • There should be urban mixed land uses. • All the cemeteries in the district must be well fenced and maintained by the responsible authorities • There is a need for the extension of the cemetery in Mafube, Maokeng and Viljoenskroon.	
--	--	---	--

		• Infrastructure must be provided and maintained. • Residential extensions in Fezile Dabi are identified in all the local municipalities. • Infill planning is recommended in Zamdela	
<u>E. Industrial Areas.</u> This category constitutes existing and designated industrial areas located outside category D.	E.a Agricultural Industry	• Grain Silos in Villiers, Koppies, Viljoenskroon, and Kroonstad. • Wine cellars	• Suitable areas should be chosen for industrial development.

It accommodates a variety of industrial activities from agriculture to extractive industries.		• There is Naledi Industrial Park (Sasolburg), • Proposal of the Industrial Park in Kroonstad adjacent to the N1, North of the existing urban area.	• Good infrastructure such as bulk services of electricity, water, roads, etc. should be provided. • Incentives must be reviewed to promote investment (Moqhaka SDF, 2019/2020, page 46)
	E.b Industrial Development Zone	• Sasol Chemcity and surrounding industries • There are small factories around all the nodes in the district (welding, brick yards, etc.) • There are small factories around all the nodes in the district (welding, brick yards, etc.) •	• Located to designated areas • The roads in the Naledi industrial area are in a terrible state. • Incentives must be reviewed to promote investment (Moqhaka SDF, 2019/2020, page 46)
	E.c Light Industry	• Storage facilities, motor mechanics, boat repairs etc.	• Located to designated areas

		• Naledi- Sasolburg • Kroondundria	
	E. d Heavy Industry	• Sasol firm • Noxious Industries • Industria-Kroonstad • Gunhill -Kroonstad	• Located to designated areas
	E.e Extractive Industry	• Mining of coal, sand, granite, bentonite etc.	• Located to designated areas
<u>F. Surface Infrastructure Buildings.</u> Category F entails surface infrastructure and buildings. Category F developments must be done in an integrated approach.	F.a National Roads	• N1 and N3	• National Roads are well maintained by SANRAL
	F.b Main Roads	• Provincial R roads	• Most of the Provincial roads are in a bad state.
	F.c Roads	• The secondary roads	• Some of the roads are worn off and some are full of potholes.
	F.d Public Streets	• Internal streets in the CBDs and residential areas	• The internal must be repaired. • There is a lot of potholes and worn off roads due to the non-maintenance of the streets and roads.

The negative environmental effects must be minimised together with the resource degradation, excessive waste generation, pollution and degradation of the aesthetic qualities of the environment.	F.e Heavy vehicle overnight Facilities	• Trucks, heavy and long vehicles (along the N1 and N3) • R59, R57, R82.	• Regulations and laws must regulate the establishment and operating the overnight truck stops.
	F.f Railway lines	• Long Distance Passenger Rail Service • Freight rail service • Farm sidings	• The rail system is the most environmentally friendly way to move people and freight.
	F.g Power lines	• Pylons • Overhead powerlines	• Powerlines can sometimes be a disturbance to the wetlands, and other natural areas
	F.h Telecommunication Infrastructure	• Information and communication infrastructure be constructed in all the towns.	• Many households have no access to internet. • People rely on cell phones for communication and internet connection.
	F.i Renewable energy Structures	• Solar energy for the local communities and farmers and farm dwellers • Wind turbines	• Capturing and converting wind and solar radiation into energy since there is load shedding and blackouts.

	F.J Dams and Reservoirs	• Vaal, Koppies, Welteverde, Rooiport, etc.	• Dams and reservoir must be protected and looked after.

	F.k Canals F.l Sewerage plants and refuse areas	- Landfill sites are not well maintained (Metsimaholo SDF 2016/17; page 18) - Landfills sites in Kroonstad and Viljoenskroon must	

CHAPTER 3

3. The Status Quo and Situation Analysis

3.1 The Fezile Dabi District SWOT Analysis

In the Status Quo Phase the development strengths, weaknesses, opportunities and threats (SWOT analysis) in the Fezile Dabi District Municipality have been identified. This SWOT analysis will have an impact and a bearing on the spatial structure and the vision of the Fezile Dabi District Municipality Spatial Development Framework. “This phase mainly seeks to identify the spatial challenges and opportunities of the District or Local Municipality by assessing the municipality’s social, economic and environmental conditions. This phase will also include more detailed investigations of the Local or District functions”. Department of Cooperative Governance and Traditional Affairs. 2017.

Development Strengths

- The district has 15 towns which strengthens the functionality within the district.
- The district is strategically located on the Northern tip of the Free State Province.
- The district is in close proximity to the Gauteng province and the markets.
- There is a thriving Manufacturing Sector in the Sasolburg area.
- The Agricultural sector is a strong anchor of the economy throughout the district.
- The tourism development has a potential of growth in the district because of the Dams and Rivers, the declared Vredefort World Heritage Site, Pary’s tourism, etc.
- There are water resources like dams, rivers, and big river tributaries across the district
- Two National corridors the N1 and the N3 traverse the district

Development Opportunities

- FDDM forms part of the Vaal River City Development
- FDDM is defined as part of the Innovation Belt in the NSDF
- Sasolburg falling within the confines of the Gauteng City Region
- Proposed new SEZ within the Metsimaholo Local Municipality
- Proposed townships with mixed development.
- Proposed densifications and infill of suitable unoccupied municipal sites in the local municipalities
- National development corridors passing through the district (N1 and N3)
- The FDDM is only about 100km to the OR International Airport depending on which route you take.
- Tourism development enhancement.
- Promotion of Eco- Tourism attractions
- Promotion of beneficiation of Agricultural Products
- Promotion of beneficiation of Petrochemicals
- Diversification of Agricultural Development

Development Weaknesses

- Environmental degradation
- Urbanisation / influx of job seekers into towns.
- Unemployment and poverty
- Crime and violence
- Housing backlogs
- Mushrooming informal settlements
- Aging infrastructure and unmaintained infrastructure.
- Illegal dumping of litter all over the place.
- Tourism and the agricultural potential are not fully explored
- Lack of serviced land for industrial and housing development
- Some local municipalities have a problematic water supply (Ngwathe and Moqhaka)

- Damaged roads with potholes
- Vaal River and other rivers pollution
- Air pollution
- Electricity load shedding and water shedding

Development Threats

- Decline in the agricultural sector production
- Decline in the mining sector production
- Instability in food security
- Natural disasters like floods, storms and veld fires.
- Depletion and degradation of the Biodiversity
- Nuisance developments with negative impact of noise, dust and others
- Dirty, garbage littered towns and residential areas
- Global warming and Climate change
- Protests and unrests, illegal land occupations
- Fraud and corruption
- Global pandemic and diseases e.g. Covid -19, HIV & AIDS, TB etc.
- Degradation of the environment by littering, pumping of raw sewerage into rivers and dams.
- Some developments like mining along the Vaal River will sterilize the land.
- Gender Based Violence (GBV).
- Backlog in proper sanitation allocation
- Low literacy levels
- Lack of maintenance of the bulk infrastructure
- Placing of municipalities under administration
- Theft and vandalism of utilities, stealing of cables and steel structures.
- Illegal electricity and water connections.
- Unemployed youth
- Lack of skills and capacity locally

3.2 The Proposed Spatial Vision

“The Fezile Dabi District Municipality strives to meet and manage the spatial needs of its communities in collaboration with the neighbouring municipalities”.

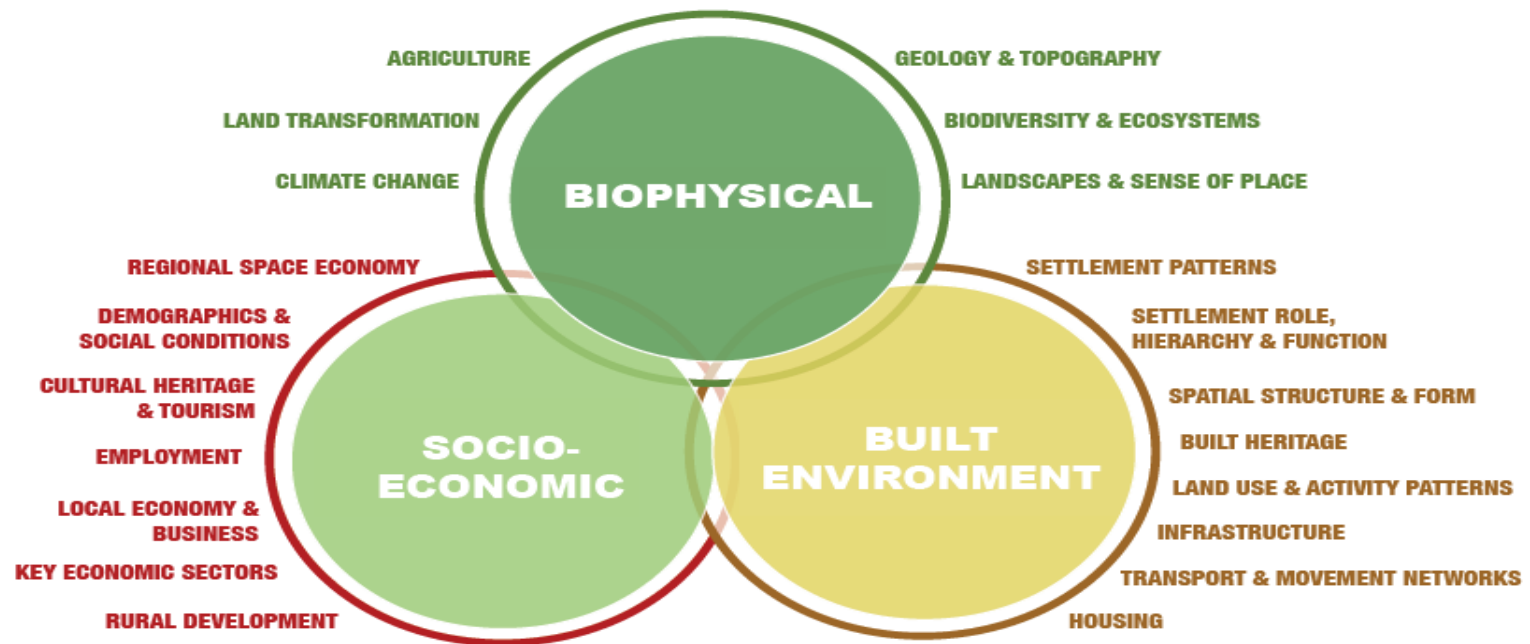


FIGURE 6: SPATIAL THEMES OF THE STATUS QUO

Figure 6 - Illustrates the relationship of the spatial themes and 26 layers within a shared geographical space, even though they may be divided for the purpose of application and management. These spatial themes are used to formulate goals and objectives in this SDF to analyse the current municipal status quo and to present spatial proposals. The spatial themes include proposals for the built environment, research and consideration for climate change, and strategies for spatial economy.

Biophysical

In Spatial planning Bio-physical refers to the natural environmental factors which are agriculture, land transformation, climate change, topography, ecosystem etc. Biophysical systems are natural and primary layers in which all other layer's rest. These layers like topography, biodiversity must be considered when land use and development are taking place.

Socio-economic

Socio economic themes aim to achieve equitable distribution of economic opportunities, access to quality housing, employment and social services across communities while actively working to reduce poverty and improve living standards. Social themes are regional space economy, economic infrastructure, demographic trends, and population growth projections etc.

Socio-economic Research shows that a primary relationship between population distribution and resources patterns are very important.

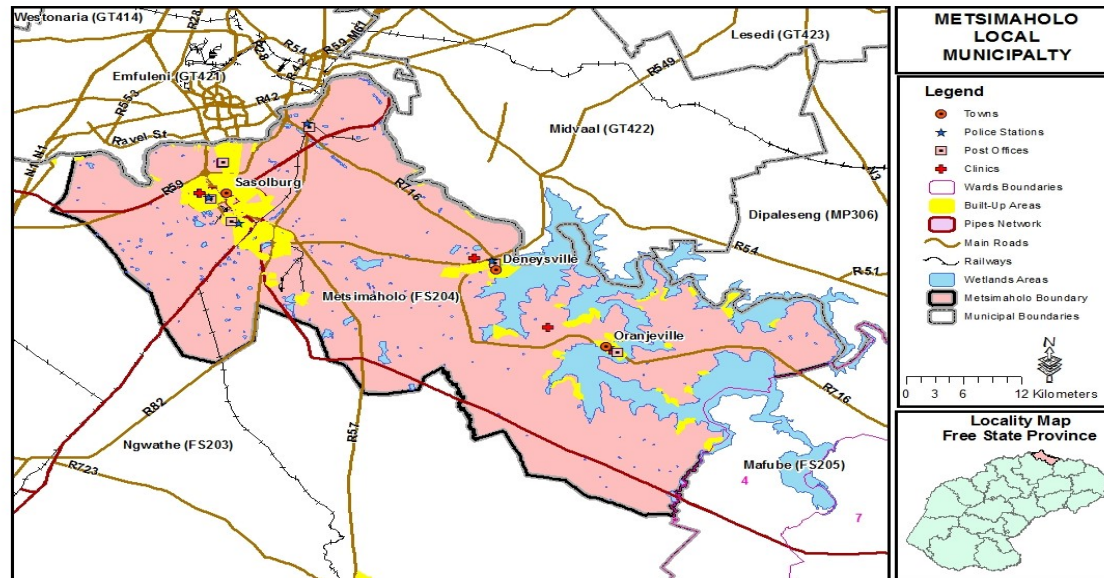
Built Environment

Built environment is made up of scenic landscapes, scenic routes, cultural heritage, gateways, housing etc. Built environment refers to human made structures and infrastructure that shapes space, including building of roads.

3.3 The Local Municipalities, Spatial Overview

Local municipalities are the main points of service delivery. The welfare and the provision for the basic needs and services of the communities are identified and delivered through the local municipalities.

3.3.1 Metsimaholo Local Municipality (Fs204)



MAP 4: METSIMAHOLO LOCAL MUNICIPALITY (SESOTHO NAME METSIMAHOLO MEANS “BIG WATERS”)

Category: B

Geographic Area: 1 717km²

Main Towns: Sasolburg, Orangeville, Deneysville and Kragbron.

Economic Sectors: Manufacturing, retail and community service.

The municipality is a Category B municipality located within the Fezile Dabi District Municipality. It is the smallest of the four municipalities in the district, making 8% of the geographic area. The municipality was established in the year 2000 after the amalgamation of the then Sasolburg, Deneysville and Orangeville Transitional Local Councils. Metsimaholo municipality has a total population of 158 391 people. The population of Metsimaholo has shown a growth rate of 0.6% according to Census 2022. The strong industrial and manufacturing character of the area attracts a large number of people to it hence the rapid population growth. The Metsimaholo area has 32.2% of the population in the district and it produces 68.1% of the GDP in the district. The manufacturing sector is the main economic driver driven mostly by the Sasol industries. Some areas in the municipality are said to be rich with underground coal deposits.

Sasolburg Town and Zamdela

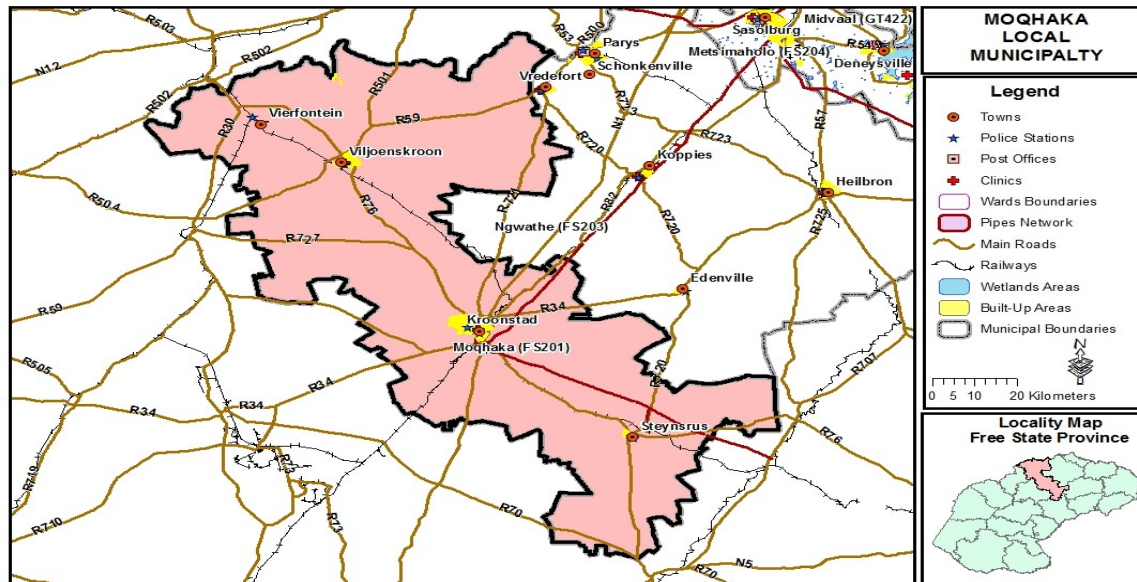
Sasolburg is a modern town that is predominantly industrial separated by the Vaal River from the equally industrial towns of Vereeniging and Vanderbijlpark on the nearby Gauteng province. Sasolburg is subdivided into Sasol proper, Vaalpark (a more affluent cluster of suburbs located north of Sasolburg) and Zamdela (a township formerly reserved for Black people). Most of the white residents speak Afrikaans, while the black people speak Sesotho. There is an internationally known SASOL firm in Sasolburg which is said to be the country's first and largest oil manufacturer from coal refinery. It provides 40% of the country's fuel. The extensive coal reserves found in the area in close proximity to the Vaal River led to the establishment of the South African Synthetic Oil Limited (SASOL) Company in 1950. The firm produces and manufactures oil from coal refinery, and a vast number of by-products such as oils, waxes, alcohol, tar products, inorganic chemical, rubber, gases, plastics, fertilizers etc., are manufactured in the area. The establishment of the SASOL firm led to the proclamation of the town Sasolburg. Sasol 1 became one of the first places to be designated as a National Key Points under the National Key Point Act of 1980. The Metsimaholo area is highly urbanised (at 91% urban and 9% rural) as cited in the Metsimaholo SDF 2016/17. There is a big population growth experienced in Zamdela related to the strong industrial and manufacturing character of the area.

Deneysville/Refengkgotso is located in the north-eastern side of Metsimaholo. It is approximately 36 km from the town of Sasolburg. Deneysville is also known as the "South Africa's Inland Riviera". Some call it the "Highveld Inland Sea" due to its proximity to the Vaal Dam. The town is situated on the walls of the Vaal Dam and that has made it famous for different Water Sports such as power boats and pontoon boat trips and fishing charters. The construction of the Vaal Dam in 1934 contributed to the formation of a small village which became known as Deneysville. The people from Gauteng and overseas countries have invested in the town by having luxury holiday homes along the Vaal Dam. The industrial development in the area is boosted by the marinas and boating activity taking place in this town.

Many of the people of this town are employed at the nearby towns of Sasolburg in the Free State and Vereeniging and Vanderbijlpark towns in the Gauteng province. Deneysville has become an important tourist and recreation town. There are annual events taking place in Deneysville like “Round the Island” yacht race, the biggest inland regatta or boat race in South Africa. There is also “The Deneysville Crocodile Ranch” which has about 2800 crocodiles and also Emus farms.

Oranjeville/Metsimaholo, the town is within 55 km from the town of Sasolburg, and it is also accessible from Vereeniging (Gauteng), Frankfort, Heilbron and Villiers in the Free State. The economy of the area is predominantly agriculture, recreation and tourism because of the Vaal Dam flowing around it. The development of the town has also been boosted by water sports and fishing. The town is also a place to which pensioners retire. The town is bound by three sides of the Vaal Dam.

3.3.2 Moqhaka Local Municipality (FS 201)



MAP 5: MOQHAKA LOCAL MUNICIPALITY

Category: B

Geographic Area: 7 925 Km²

Main Towns: Kroonstad, Viljoenskroon, Steynsrus

Economic Sectors: Agriculture, Mining (even though mining has declined drastically) retail and government sector, commercial transport. The Moqhaka local municipality is situated in the Southern part of the Fezile Dabi District Municipality. The area covers 7. 925 Km² and it is the largest municipality in the Fezile Dabi District area. The towns in Moqhaka Local Municipality are Kroonstad, Viljoenskroon, Steynsrus, Vierfontein and Renovaal. According to the Census 2022 information, Moqhaka has a population of 155 410. The Moqhaka Local municipality has experienced the highest negative population growth -0.3 in the district. Moqhaka is characterised by pockets of industry and commerce in the towns.

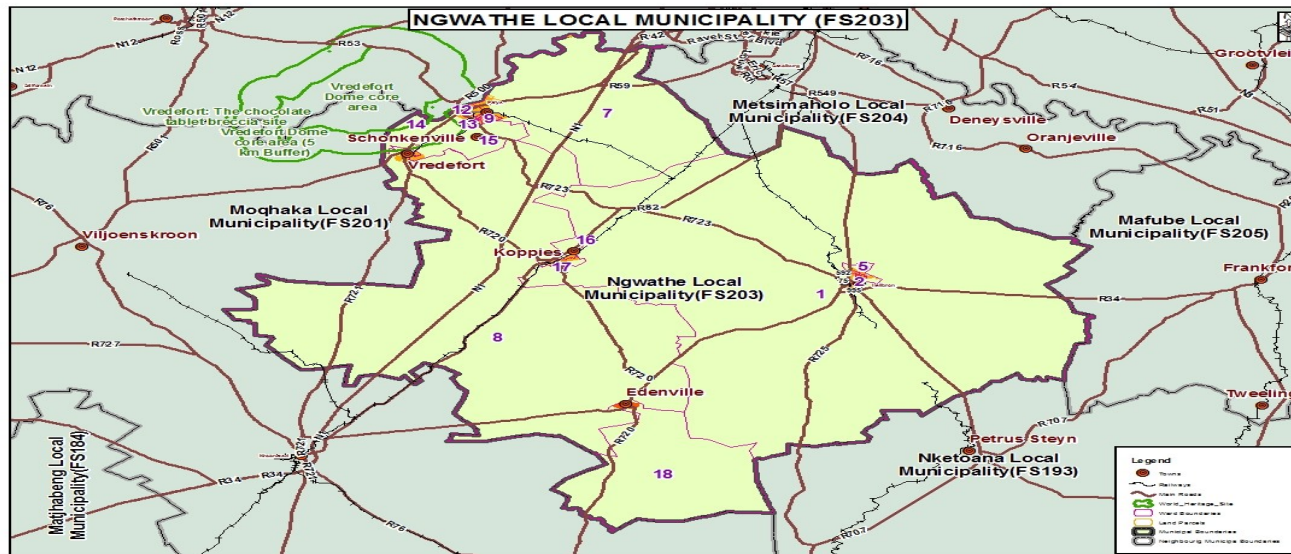
The municipality is made up of former Transitional Local Councils of Kroonstad, Viljoenskroon, Steynsrus, and sections of Riemland, Kroonkop and Koepel. Moqhaka has the second highest GDP contribution of 20.5% in the district. The N1 National Road passes through the municipality of Moqhaka. Moqhaka also has other proclaimed existing towns that are formal residential areas. These towns are Renovaal, Vierfontein and the Vaal Reefs hostel complex and settlement. Renovaal is a town adjacent to the Vaal River and the Renoster River that was established in 1974. The purpose for this township establishment was to provide residential settlement to the people working at the mines in the nearby North West province. The town was later turned into leisure residential area with a recreation potential. The development of the town at this stage is latent.

Kroonstad /Maokeng is the centre of a large agricultural community that plays an important role in the economy of the region that produce maize, wheat, dairy products, meat products and wool. Industrial activities in this town contribute to the economy of the district. Kroonstad is 122 km from the town of Sasolburg and about two hours' drive from the province of Gauteng. The town is situated on the banks of the Vals River which is a tributary of the Vaal River. The Department of Correctional Service and School of Engineer's military bases are situated in this town. There's a modern and popular holiday resort of Kroon Park adjacent to the Val River. The urban area is situated adjacent the N1 national road connecting Johannesburg and Cape Town. The town has also been known for being a four-way railway junction. Kroonstad has a number of industries that contribute to the local economy, which are industries such as the Premier Milling, Senwes, and Octa Engineering. Government departments and state-owned entities among many others such as the Correctional Service, National Defence Force and Transnet etc. have offices in Kroonstad. Kroonstad also plays a major role in the health services in the district. The only regional hospital for the district, the Boitumelo Hospital is situated in the Kroonstad town.

Steynsrus / Matlwangtlwang is situated approximately 45 km East of Kroonstad and 92 km West of Bethlehem on the R76 road. The major link road between Bethlehem and Kroonstad stretches adjacent to the town. The area is of agricultural character and mainly provides for the agricultural services in the area. For specialised services people travel to Kroonstad as a large service centre which is not very far.

Viljoenskroon/ Rammulotsi urban area is located within the area of extremely high agricultural significance. The area plays a significant role in providing residential opportunities to the adjacent goldfields and mini activities for the North West province. The provincial road R76 from Kroonstad to the North West province extend through the area from north to south. The economic sectors in the town are agriculture, commercial transport, mining and business services, there is also cross provincial boarder influx due to gold mining activities.

3.3.3 Ngwathe Local Municipality (FS 203)



MAP 6: NGWATHE LOCAL MUNICIPALITY

Category: B

Geographic Area: 7 055Km²

Main Towns: Parys, Vredefort, Koppies, Edenville and Heilbron

Economic Sectors: Agriculture, Tourism, Manufacturing and Mining

Ngwathe is the Sesotho name for the “Renoster River”. The area covers 7 055 km². The Ngwathe local municipality is located in the Northern part of the Fezile Dabi District Municipality. Ngwathe has five urban centres which are, Parys, Heilbron, Koppies, Vredefort and Edenville. According to Census 2022 the population of Ngwathe is 134 962 and the growth rate is 1, 2%. The Vaal River forms a boundary which separates the northern part of the municipality from the North West province. The Vaal River and the Barrage also separates the Ngwathe from the Metsimaholo local municipality. The Vredefort Dome is the prominent topographical feature in Ngwathe. The Vaal River and the Vredefort Dome make the area a unique and exceptional attraction for tourism in the Ngwathe municipality.

Parys

Parys/Tumahole is an urban area and a service point which is situated on the banks of the Vaal River. Parys has an exceptional and unique natural environmental feature which makes it a tourism potential. On the banks of the Vaal River there are number of guest houses, conference facilities and golf estates, restaurants and fast-food outlets. The town has unique curio, antique arts and crafts shops which attract tourists from the Gauteng province and all over South Africa. Parys also has a well-developed airfield that supports commercial and tourism development in the area. Parys has a strong commercial component of tourism, and it provides a wide range of services including health services, education and other professional services. Parys is said to be underlain with granite which is exploited for the export markets. Alluvial diamonds are exploited at isolated locations of the Vaal River riparian.

Heilbron is a typical small town that was established in 1878. It is located approximately 53 Kilometres South of Sasolburg. It has developed to be a small urban centre, serving the surrounding agricultural communities. Heilbron serves as a specialised economic hub focussing on agricultural activities and related manufacturing.

Vredefort/Mokwallo area is located approximately 50 Kilometres West of Sasolburg. Vredefort is also serving the surrounding agricultural communities. One prominent topographical feature in Vredefort is the Vredefort Dome World Heritage Site. The form of the dome consists of a central cone of granite surrounded by concentric ridges of quartzite belonging to the Witwatersrand System. (www.infosa.co.za, 2019.02.06). The Vredefort Dome is the main tourism attraction in the Ngwathe municipality.

Koppies/Kwakwatsi is situated approximately 70km South of Sasolburg and about 90km to Vereeniging and Vanderbijlpark. Koppies is an area of agricultural significance, and it provides services to the surrounding farms. The agriculture in Koppies is said to be enhanced by the three well developed irrigation schemes. The Renoster River passes through Koppies in a series of dams which are Welteverde, Rooiport, and the Koppies Dam. There has been a recent upgrading of the Koppies Dam Nature Reserve and a new private nature resort at Rooiport Dam. The R82 Battlefield Route passes through Koppies. There is Bentonite exploitation and the initiative for coal mining in the Koppies region which leads to job creation in the area. The national annual angling competitions are held at the Koppies Dam (NgwatheSDF2015/16, p95)

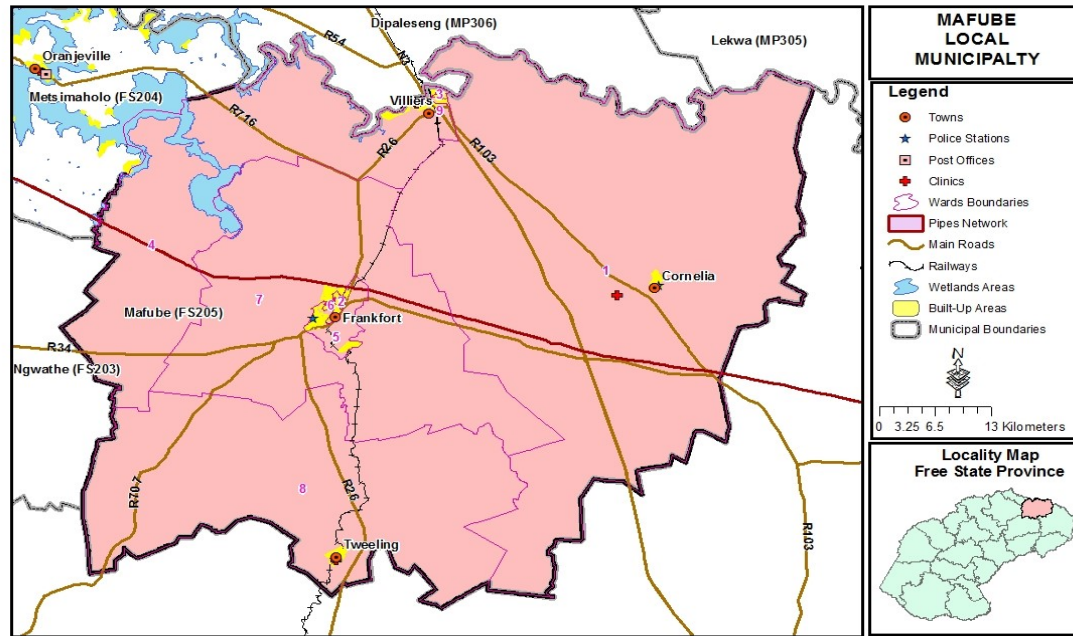
Edenville/Ngwathe

Edenville is a small rural town just East of Kroonstad. It offers a few outdoor activities such as horse riding and horse trails, farm stays and wildlife attractions. Edenville is also being regarded as an area of agricultural significance. The terrain around Edenville is flat like typical of the central Free State. Edenville is about two hours' drive from Johannesburg linked to the N1 via R34 about 45 minutes' drive from Kroonstad. The main road linking Kroonstad and Heilbron runs adjacent to the town. (www.infosa.co.za 2019.02.06).

The Vredefort Dome World Heritage Site (VDWHS)

The Vredefort Dome was listed as a world heritage site by UNESCO in 2005 which is to be proclaimed. The Vredefort Dome World Heritage Site is located within both the Free State and the North West Provinces. The geographical area of VDWHS is covered in the Fezile Dabi District Municipality and the Dr Kenneth Kaunda District Municipality respectively. The Fezile Dabi district side comprises of 20 414 ha and the North West province is 68 040 ha. In the Fezile Dabi District Municipality the local municipalities within the Vredefort Dome are Moqhaka Local Municipality and the Ngwathe Local Municipalities and in the North West side it is the J.B. Marks Local Municipality. It is quite important to note that the Free State part of the Vredefort Dome is largely in the Moqhaka LM than in the Ngwathe LM. The VDWHS plays an important role in the economy of Ngwathe since the towns of Parys and Vredefort are the closest towns. VDWHS Spatial Development Framework will be prepared separately because of the unique and special character of the area.

3.3.4 Mafube Local Municipality (FS 205): Mafube is a Sesotho name meaning “dawning of the new day”



MAP 7: MAFUBE LOCAL MUNICIPALITY

Category: B

Geographic Area: 3 971Km²

Main Towns: Frankfort, Villiers, Tweeling, Cornelia

Economic Sectors: Agriculture, community service, retail, manufacturing and transport.

The municipality has four towns which are service points to the communities of the area. The population of the municipality is 61 150 according to Census 2022 and the growth rate is 0.5. Mafube has the smallest population in the district. Mafube is the lowest densely populated local municipality in the district. Mafube Local Municipality covers the amount of 12, 5% area in the district.

Frankfort/ Namahadi is the growth and service point of the greater Mafube municipality. It renders service provision to the agriculture, industrial and commercial developments in the area. The Wilge River passes adjacent to the town. The major provincial road R34 stretches from Kroonstad through the town of Frankfort to the Eastern Free State and Kwa Zulu Natal Province. Frankfort was built in 1869 as a small town, serving the predominant surrounding agricultural community. According to the Mafube SDF 2016/17 Frankfort remains the node and growth point in Mafube. It plays a major role in terms of a regional service provider, industrial and commercial development. Frankfort has Clover SA and Sasko as prominent industries.

Tweeling / Mafahlaneng is primarily agricultural in nature boasting with sheep and cattle farming, maize, and sunflower seed production. Tweeling / Mafahlaneng is located approximately 150 km East of Sasolburg and 350 km North -East of Bloemfontein and is adjacent to the Frankfort/ Reitz primary road.

Villiers/Qalabotjha is situated on the banks of the Vaal River and has the N3 National Road from Johannesburg to Durban passing through it. The area of Villiers is predominantly agriculture in nature. Products such as maize, sunflower, wheat, grain, sorghum, meat and dairy are produced in this area. Villiers was established in 1881 and it slowly developed into a service centre providing a wide range of services.

Cornelia/ Ntwisanatsatsi town is situated adjacent to the R103 secondary road between Warden and Villiers. Cornelia is situated 60 km east of Frankfort, 160 km east of Sasolburg and 32 km South of Villiers. The area is of agricultural significance in terms of providing for the surrounding rural area.

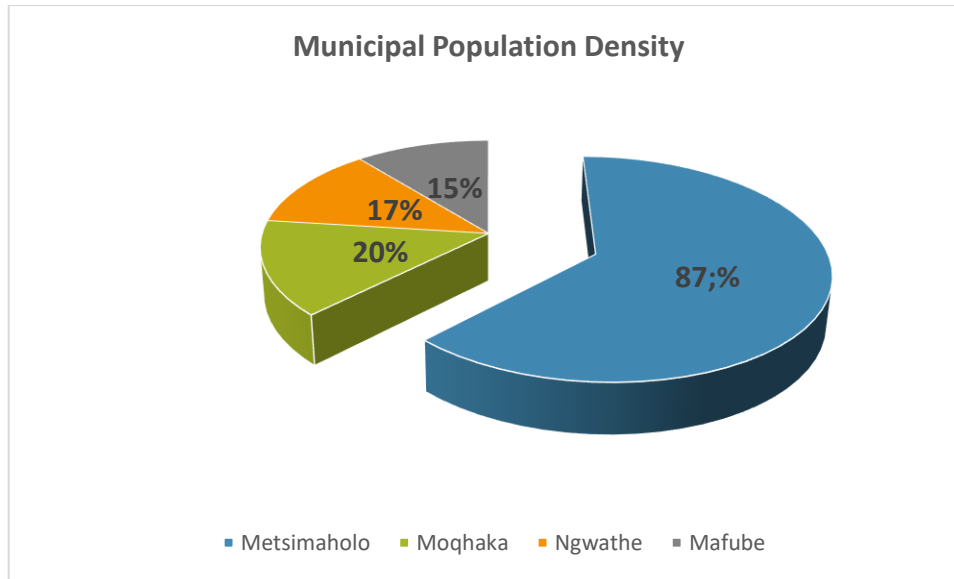


FIGURE 7: THE LOCAL MUNICIPAL POPULATION DENSITY

3.4 Settlement Types

The Sasolburg town is the main economic driver in the district and the growth point of the region. The town of Kroonstad is the second largest town in the district.

- **Urban Areas** are Sasolburg, Kroonstad, Frankfort and Parys. The high population numbers, economic activities, administrative, services are concentrated in these towns.
- **Rural Areas** function as agricultural, tourism, and mining areas.
- **The small settlements and villages** are scattered through the local municipalities engaging in agriculture, mining and tourism activities.

Settlement Type

Large Town

Small-Medium

Small Town

Village

Remote Village

Town

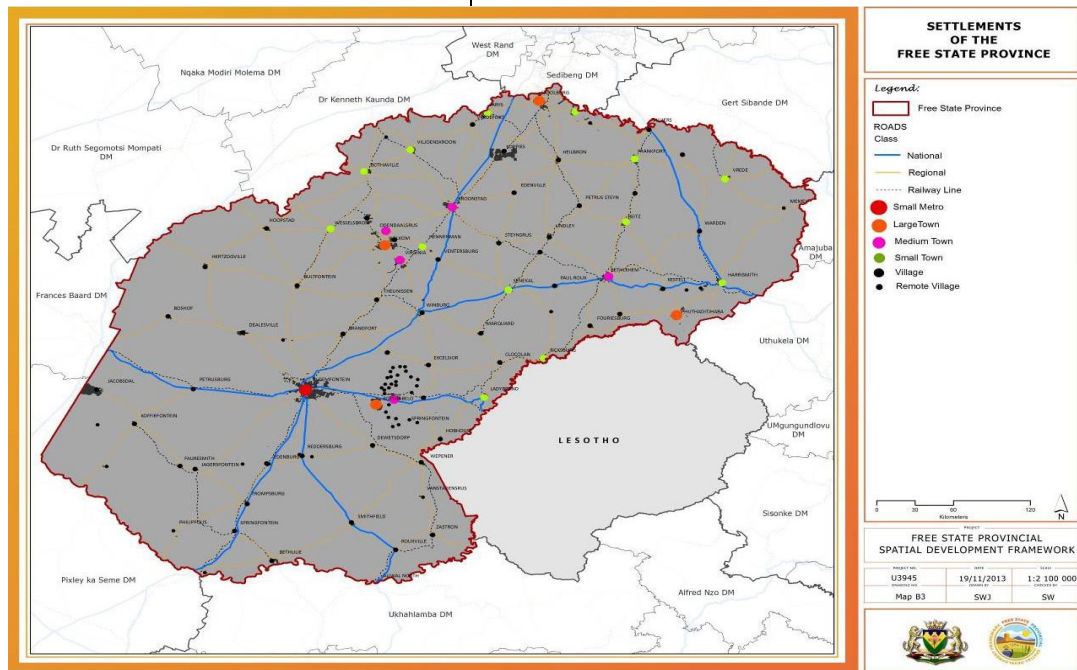
Sasolburg

Kroonstad

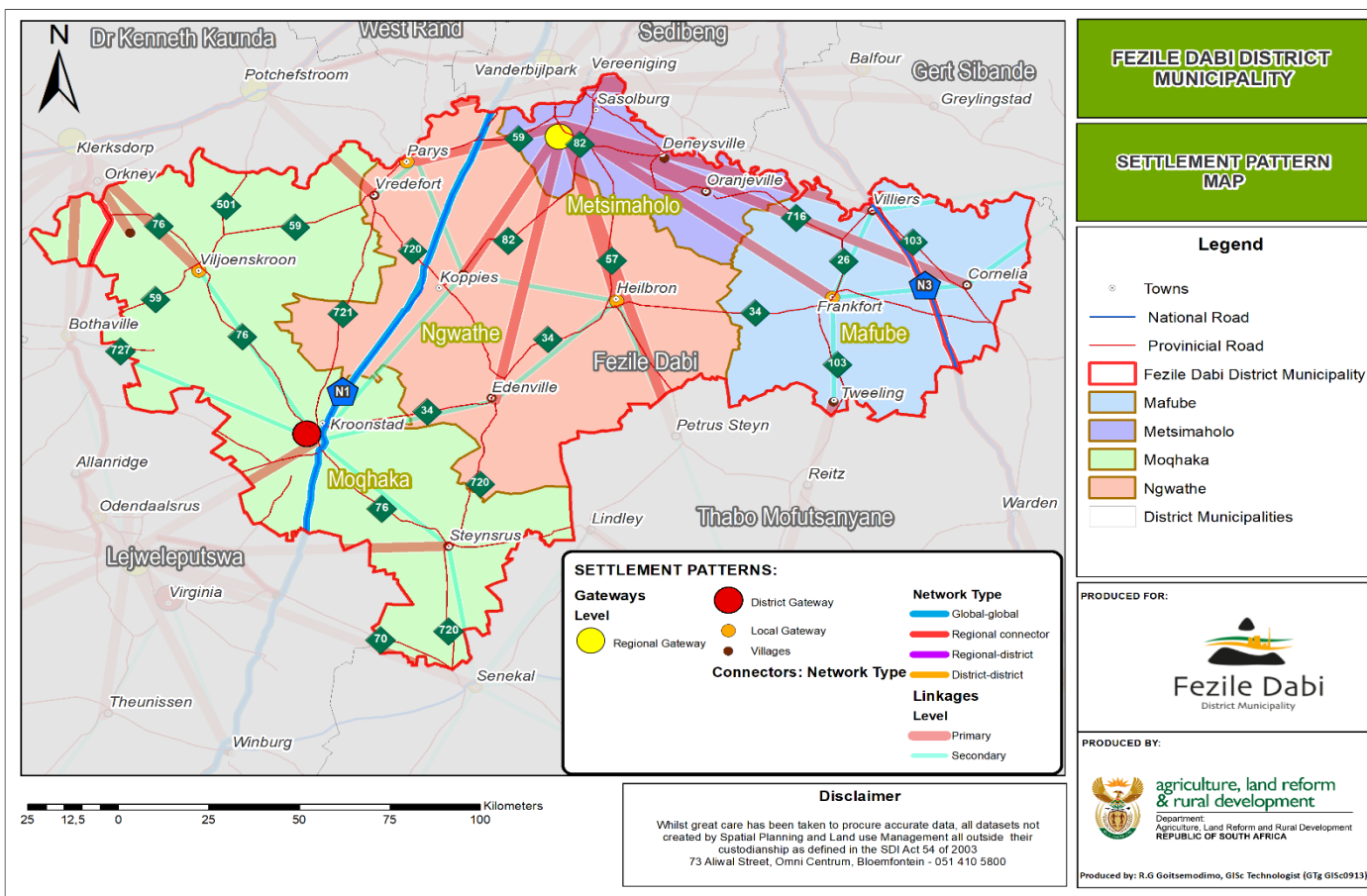
Viljoenskroon, Parys, Frankfort, Deneysville

Vredefort, Koppies, Edenville, Steynsrus, Heilbron, Tweeling, Cornelia

Vierfontein, Oranjeville, Kragbron



MAP 8: THE FREE STATE PROVINCE SETTLEMENTS MAP



MAP 9: THE FEZILE DABI SETTLEMENTS PATTERNS

3.5 Heritage Sites

The Vredefort Dome is a well-known listed World Heritage site in the Fezile Dabi District by UNESCO in 2005 as the World's seventh Heritage Site. There are also several provincial heritage sites such as old church buildings in towns like Kroonstad, post offices, town halls and other old buildings declared by the South African Heritage Resource Agency (SAHRA).

3.6 Socio Economic Analysis

3.6.1 Demographic Overview

3.6.2 Population Distribution and Growth by Province

TABLE 5: POPULATION DISTRIBUTION AND GROWTH BY PROVINCE, CENSUS 2011 AND CENSUS 2022

PROVINCE	2011	2022	Growth Rate
Western Cape	5 822 734	7 433 020	2.4
Eastern Cape	6 562 053	7 230 204	0.9
Northern Cape	1 145 861	1 355 945	1.6
Free State	2 745 590	2 964 412	0.7
Kwa Zulu natal	10 267 300	12 423 907	1.9
North West	3 509 953	3 804 584	0.8
Gauteng	12 272 263	15 099 422	2.0
Mpumalanga	4 039 939	5 143 324	2.3
Limpopo	5 404 868	6 572 721	1.9

Table 5 - Shows the distribution of the population and growth by province from Census 2011 in comparison to Census 2022.

- The Free State Province has the lowest cha
- The Free State Province has a slow population growth connected with the following:
 - ❖ Lack of economic opportunities

- ❖ Gauteng
- ❖ fewer urban amenities and limited access to services discourage people from settling in the province

3.6.3 Population Distribution by Local Municipality

TABLE 6: POPULATION DISTRIBUTION AND GROWTH RATE PER LOCAL MUNICIPALITY IN CENSUS 2011 AND CS 2022

District /Local Municipality	Census 2011	Census 2022	Growth Rate %
DC20: Fezile Dabi	488036	509 912	0.4
FS204: Metsimaholo	149 108	158 391	0.6
FS205: Mafube	57 876	61 150	0.5
FS206: Moqhaka	160 532	155 410	-0.3
FS207: Ngwathe	120 520	134 962	1.2

Table 6: Profiles the population size by municipalities between 2011 and 2022 census.

- The district municipality has grown in the population size,
- Moqhaka Local Municipality has the highest decrease in population numbers of -0.3%.
- Mafube Local Municipality has the lowest population in the district.
- Moqhaka and Mafube are reliant on agriculture. Young people may not be interested in living in rural areas away from urban amenities. They believe that farming doesn't have financial stability. This might be the cause of migration which resulted to lower populations.

3.6.4 Distribution of population by Age Groups

TABLE 7: DISTRIBUTION OF POPULATION BY MUNICIPALITY AND BROAD AGE GROUPS, CENSUS 2022

District /Local Municipality	Census 2022				
	0-4	5-14	15-34	35-59	60+
DC20: Fezile Dabi	43 006	87 123	164 157	158 820	61 802
FS204: Metsimaholo	13 036	27 019	52 542	50 014	15 777
FS205: Mafube	50 53	10 859	20 354	17 901	6 983
FS204: Moqhaka	13 421	25 746	49 326	46 804	20 111
FS203: Ngwathe	11 496	23 499	41 935	39 101	18 930

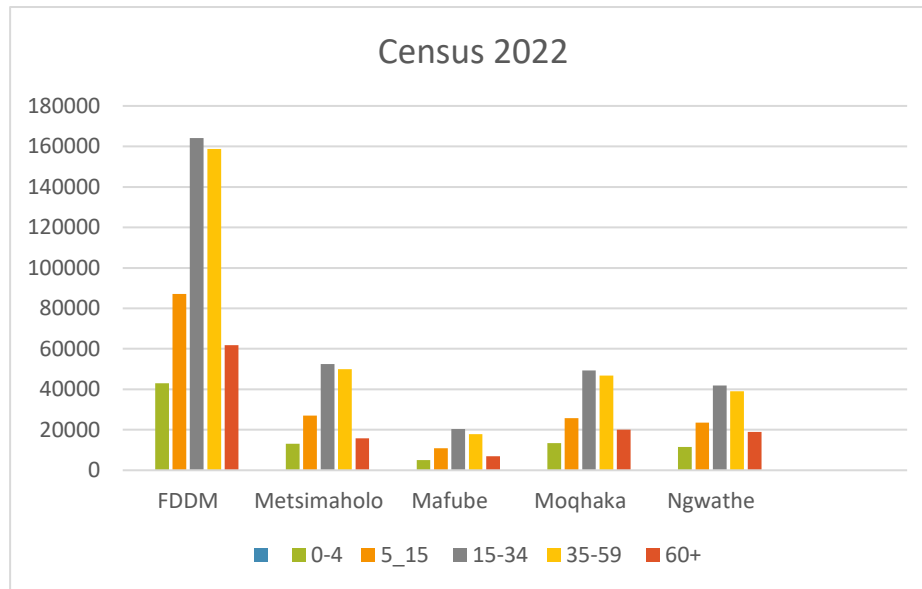


FIGURE 8: DISTRIBUTION OF POPULATION BY BROAD AGE GROUPS PER MUNICIPALITY

- Metsimaholo Local Municipality has the highest working age population, which will require infrastructure development and employment opportunities.
- The dependency ratio is lower at Metsimaholo Local Municipality.
- The district's population is characterised by a large segment of ages 15 to 59 years which will somehow influence the spatial transformation. The people in this bracket are very active in the socio- economic aspects. There will be more demands for residential developments, social facilities, business opportunities, employment, sports facilities leisure and recreation facilities for the age range 15-59.
- Ngwathe, Moqhaka and Mafube have quite a noticeable high number of ageing population which is above 60 years. This elderly population has its special needs such as healthcare facilities, social services and others.

TABLE 8: POPULATION ESTIMATES FOR THE FEZILE DABI DISTRICT AREA

YEAR	2021	2022	2023	2024	2025
Estimate	510895	512777	514408	515835	517081

Source Statistics S.A

3.6.5 Education

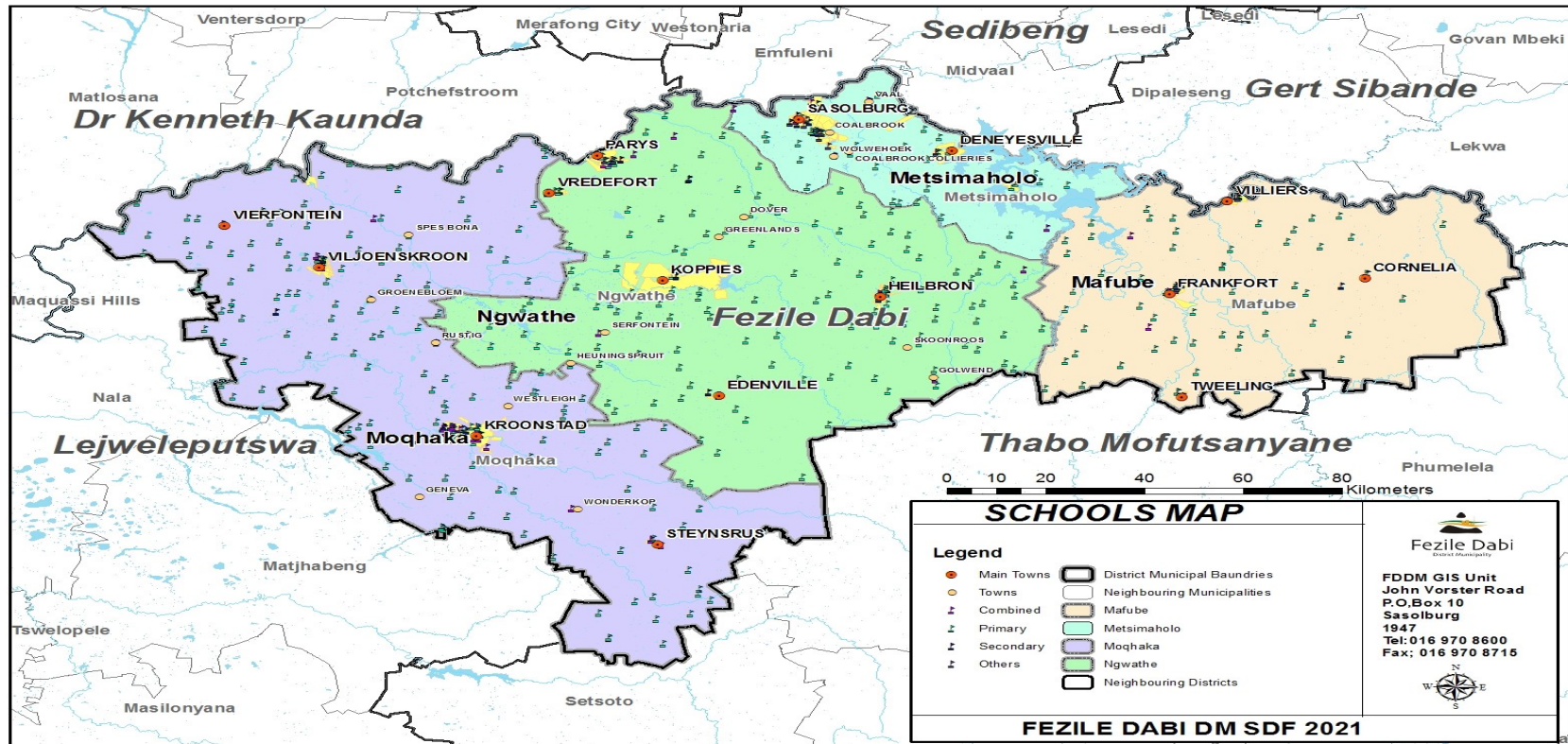
The Fezile Dabi matric high pass rate results have always been in the top bracket in both the country and the province for the past five years.

TABLE 9: FREE STATE EDUCATION FACILITIES BY TYPE IN THE FEZILE DABI DISTRICT MUNICIPALITY

1. Farm Schools	3
2. Early Childhood Development	179
3. Finishing	1

4. Hospital	0
5. Independent	16
6. Public	162
7. Special	7
Total	368

Education is one of the key priorities in the Fezile Dabi District Municipality and a basic right for all South Africans including adult basic education and further education as stipulated by the South Africa's Constitution. One of the main objectives of the NDP vision 2030, Chapter 9 is to improve education, innovation and training. Education is a central element for eradicating poverty and reducing inequality. The Fezile Dabi District Education is part of the District Whole School Development (DWSD) program that assists to build and renovate schools.



MAP 10: THE SCHOOLS IN THE FEZILE DABI DISTRICT

3.6.6 Health



MAP 11: THE HEALTH FACILITIES IN THE FEZILE DABI DISTRICT

- There are numerous health facilities built in the district in the local municipality which are public and private hospitals and clinics.
- Some of these facilities are newly built and others have been renovated and upgraded.
- There are fully equipped mobile clinics that do services of screening, lifesaving care medicines and other services in remote areas and areas that do not have clinics. There are scheduled dates for these mobile clinic operations.
- The Boitumelo Regional Hospital is in Kroonstad. It serves as both the Regional and the District Hospital.
- The Health Department need to rope in during the Township Establishment meetings or Public Participation for their inputs against challenges of ownership of land, location and sizes of land for health facilities and time frames for approvals.

3.6.7 Poverty

Fezile Dabi is one of the poorest districts in the Free State province reflecting a higher level of poverty compared to the province with 38% of people living below the lower bound poverty and 24% of people living below the food poverty line. (Ngwathe SDF 2024- 2-29, page 96).

The Mafube Local Municipality has the highest number of people living in poverty. The total number is 67.5%. The municipality with the lowest number of people living with poverty is the Metsimaholo Local Municipality with a total of 49.8%. (Profile and Analysis, District Development Model, FDDM, p18)

3.7 Built Environment

3.7.1 Housing

Spatial Planning Category D. Urban Related

TABLE 10: TYPES OF DWELLINGS

District /Local Municipality	2011				2022			
	Formal Dwellings	Traditional Dwelling	Informal Dwelling	Other	Formal Dwellings	Traditional Dwelling	Informal Dwelling	Other
Fezile Dabi	120700	717	22254	1300	130089	815	13790	845
Moqhaka	40495	215	4705	246	38915	202	3357	315
Ngwathe	30172	159	6510	257	33560	181	2718	335
Metsimaholo	38380	126	6524	723	43311	215	5364	170
Mafube	11653	216	4515	74	14303	216	2351	26

- Table 8 shows that the percentage of people living in formal dwellings has increased in FDDM and the local municipalities in 2022.
- Other types of Dwellings have decreased in 2022.

3.7.2 Energy Sources

Spatial Planning Category F. Surface Infrastructure & Buildings

Green Energy Potential and Current Energy Infrastructure (National Spatial Development Framework 2022)

United Nations Sustainable Development Goal 7 calls for “affordable reliable, sustainable and modern energy for all” by 2030, seeking to ensure access to affordable reliable, sustainable and modern energy. Investing on reliable energy has health benefits, environmental protection and good economic returns.

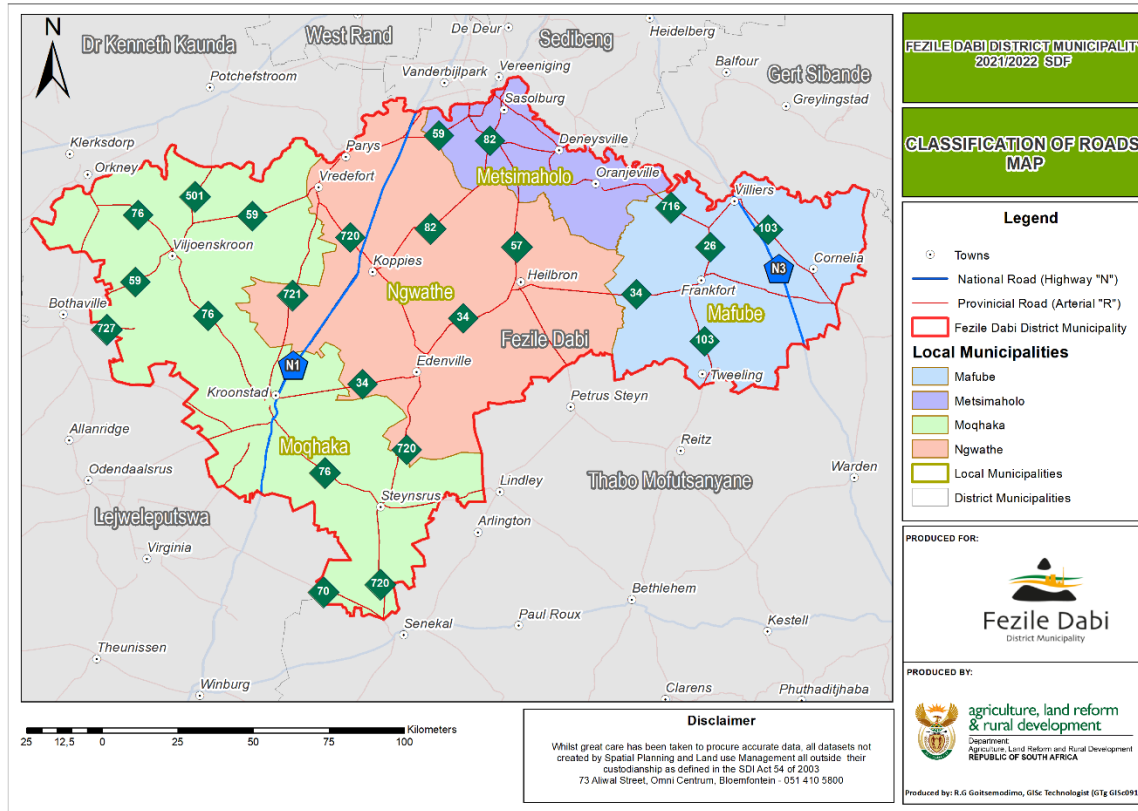
Green Energy Potential: High solar development areas, high wind development areas, Hydroelectricity, Biomass, Settlement areas.

Current Infrastructure: Biomass power, coal fired power stations, gas turbines, hydroelectric, landfill gas power, nuclear, energy powerlines.

Several development applications have been made Metsimaholo, Ngwathe, Moqhaka and Mafube Local Municipalities on renewable energy structures and facilities such as Photovoltaics (PV) Solar Energy Facility (SEF) and Stations for Electric Motor Vehicles and ancillary uses. The NSDF displays the Fezile Dabi District Municipality as part of municipalities that lie in the Green Energy Potential area of High Solar Development areas. The NFSDF displays Fezile Dabi District are falling under National Energy Potential and Network Corridors which is the Central Corr

3.7.3 Road Networks and Transportation

Spatial Planning Categories F: Surface Infrastructure & Buildings



MAP 12: THE FEZILE DABI ROADS NETWORK

3.7.4 Roads Network

The Fezile Dabi District Municipality is connected to other provinces, districts and towns through the air transportation, road networks, and the defunct or non-operating railways. In South Africa we have 3 hierarchy of roads which are National (N), Provincial (R) and Regional (R followed by 3 numbers) and we also have internal streets locally in residential areas. The South African Roads Agency Limited is responsible for looking after the national roads and sometimes also after both the provincial and the regional where there is no provincial capacity. The provincial roads and regional roads are looked after by the province and the internal streets by the municipality.

N1- the N1 is a National Corridor from Cape Town in the Western Cape Province to Musina in the North of Limpopo Province. It passes through the Fezile Dabi District Municipality linking the Free State Province to the Gauteng and the Northern Cape Provinces. The N1 connects the Johannesburg Metro to the Cape Town Metro, the South African's first largest metro to the second largest metro. It cuts through Kroonstad in Moqhaka and the Ngwathe Local Municipality in the Fezile Dabi District to the Mangaung Metro.

N3 -the N3 National Corridor passes through the Fezile Dabi District Municipality linking the Free State Province to the Gauteng Province and the KwaZulu Natal Province. The N3 connects the two major cities which are Johannesburg and Durban South Africa's large city and South Africa's largest and busiest port of Durban.

The N3 passes through Villiers in the Fezile Dabi District Municipality to Bethlehem and Harrismith in the Thabo Mofutsanyane District in the Free State Province. Harrismith is strategically located on the N3 as the Harrismith Logistical Hub (HLH). It serves as a multi nodal transport and logistics hub. Through the N3 there is access to Durban's export and import port facility by the businesses from the inland using Fezile Dabi as a passage.

The NSDF refers to these corridors as the National Development Corridors that need to be strengthened and supported by upgrading, and expansion. It also advocates for the development of corridors at regional level between cities and towns, between township nodes, urban nodes and CBDs, it advocated for proper planning, development and support.

R34 -Forms a link between Kroonstad via Edenville, Heilbron and Frankfort in the Fezile Dabi District Municipality.

R59 -It links Parys and Viljoenskroon, Parys and Sasolburg in the Free State Province to Vereeniging, Meyerton and Alberton in the Gauteng Province. The VRRSDF refers to the R59 as an Industrial development area because of the development taking place alongside it. The VRRSDF further proposes that the expansion of the R59 be planned and continued maintenance must take place.

R57- It is linking Heilbron with Sasolburg in the Free State Province to Vanderbijlpark in the Gauteng Province.

R76- It is the road linking the North West Province via Viljoenskroon, Kroonstad, Steynsrus and Lindley to Bethlehem in the Free State Province to the Kwa Zulu Natal Province.

R76- The road is between Vierfontein and Viljoenskroon in the Fezile Dabi District Municipality.

R716- The road is on the north of the VaalDam between Deneysville and the VaalDam, Oranjeville and joins the R26 to either Villers or Frankfort in the Free State Province.

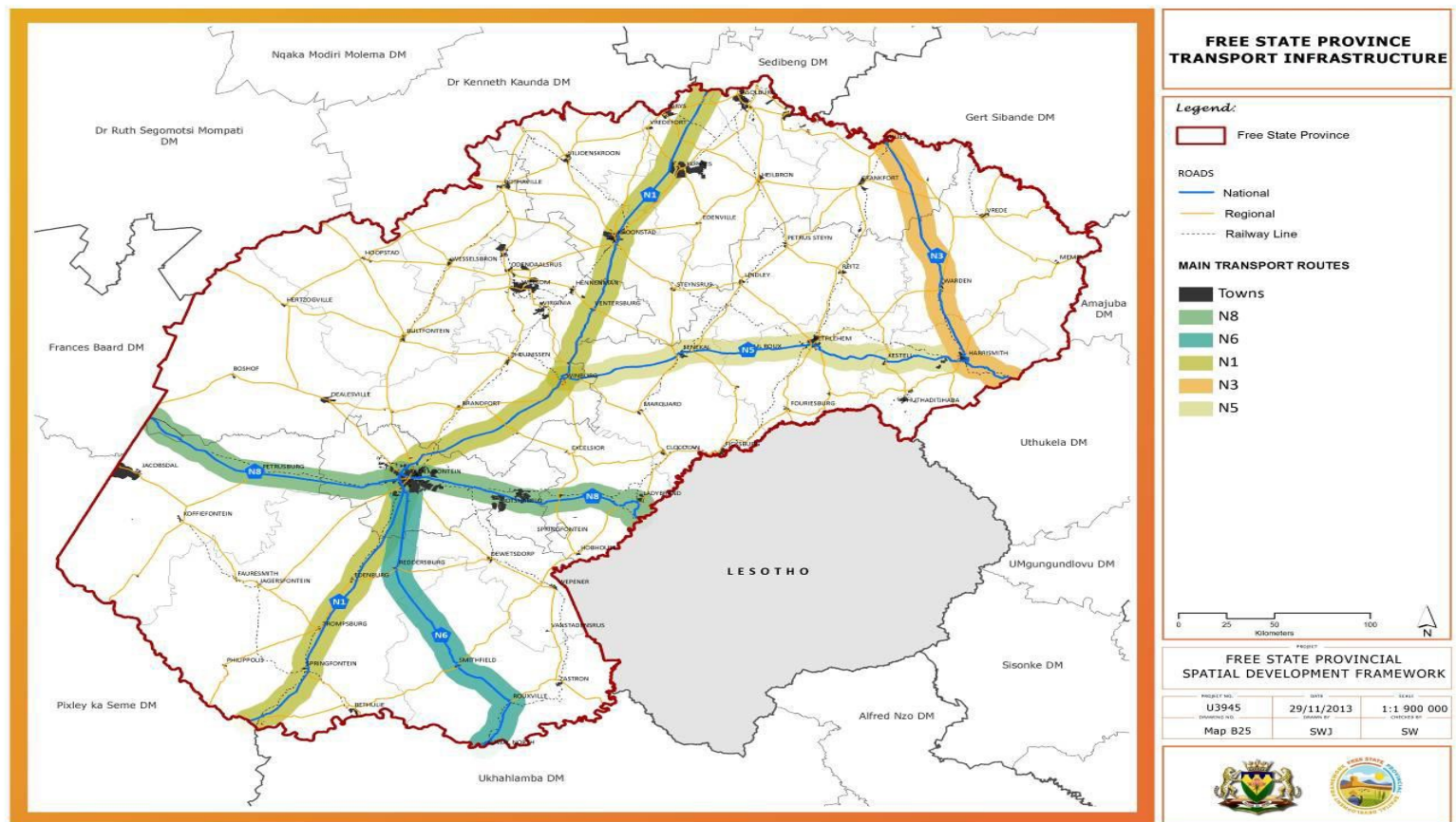
R716- It is south of the VaalDam, via the Jim Fouché Resort, linking Deneysville with Frankfort

R26 -It provides a link to Frankfort via Tweeling with Reitz, and Bethlehem in the Free State Province.

R82- links Kroonstad to Koppies in the Free State Province to Vereeniging and Johannesburg in the Gauteng Province.

The roads and streets within the towns and residential areas are not maintained and they are in a poor condition. The surface of the internal streets wears off easily to the pressure of traffic and during the rainy seasons. The repair and maintenance of all the roads is critical for the movement of the people, goods, and services over short and long distances.

R103 -is a secondary road adjacent to Cornelia between Villiers and Warden



MAP 13: FREE STATE TRANSPORT ROUTES

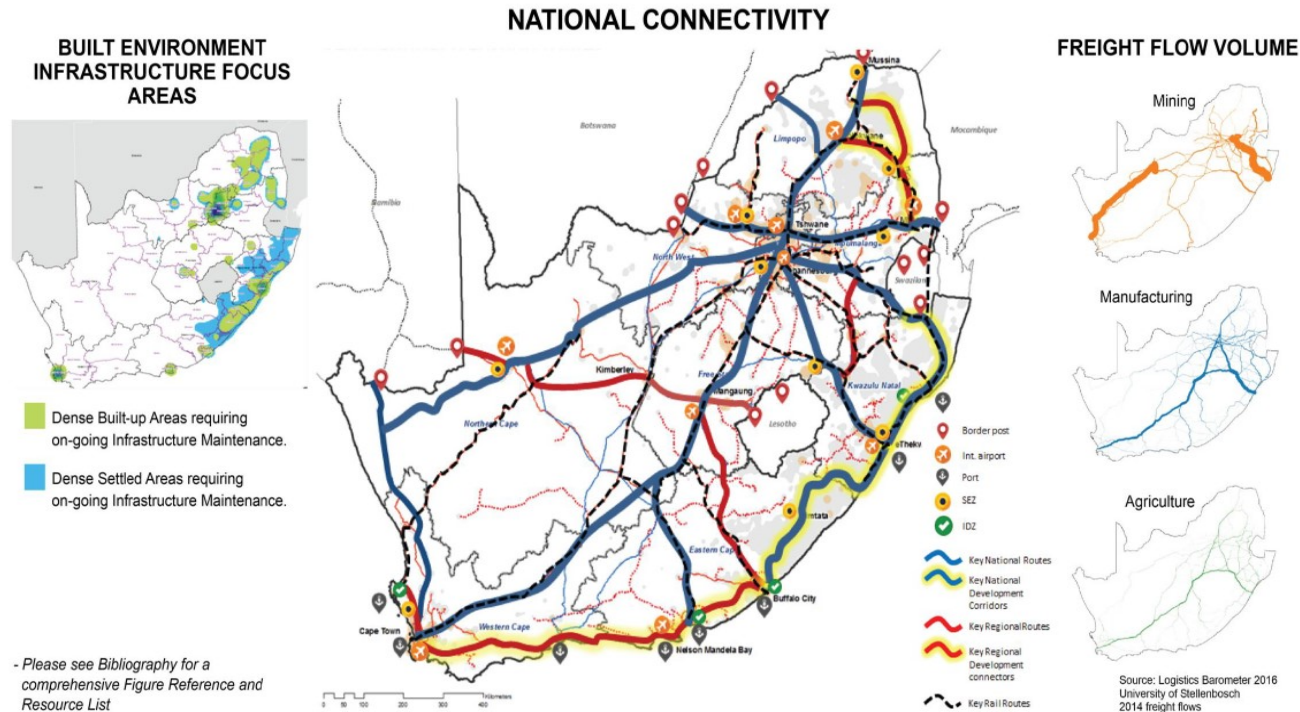


FIGURE 9: MOVEMENT, CONNECTIONS & FLOWS - NATIONAL CONNECTIVITY (SOURCE: NSDF 2050)

3.7.5 Airfields

Spatial Planning Category D: Urban Related Areas

There are 5 airfields within the Fezile Dabi District Municipality in the following towns;

- **Parys** –Parys airfield is owned by Ngwathe Local Municipality. It is functional and it is used by private individuals and farmers for crop spraying on surrounding farms. The airfield needs upgrading and maintenance.
- **Heilbron** – the airfield is not functional; it is damaged, and it has no economic benefits.

- **Frankfort** – The airfield is functional, and it provides hangar and storage facilities.
- **Villiers** – it is privately owned, and it is functional, it has a hangar facility, and it provides landing services to crop spraying aircrafts.
- **Kroonstad** – the airfield is functional, and it is leased by Moqhaka Local Municipality.
- Viljoenskroon – the airfield doesn't exist anymore; it is currently used for residential development.

3.7.6 Railways

Spatial Planning Categories F: Surface Infrastructure & Buildings

The long-distance passenger rail service (Shosholozha Meyl) from Gauteng to the Eastern Cape that passed through Kroonstad, Sasolburg, Koppies and Bloemfontein to the Eastern Cape towns of East London and Port Elizabeth has not been functioning since the time of Covid-19 in 2020. Crime of cable theft and vandalism of the railway equipment has also exacerbated the problem. Lots of freight transportation and passengers' transportation has shifted to the road transport.

Railway Stations

All the railway stations and railway track in the Fezile Dabi District Municipality have been vandalized and there has been no train movement since the time of Covid 19. The Kroonstad station was an important junction connecting different parts of the country which are Johannesburg and Cape Town, Bethlehem, Bloemfontein, Sasolburg and Welkom are now in a derelict state. All the stations in Fezile Dabi except the Sasolburg station have been vandalised and run down.

3.7.7 Industries

Spatial Planning Categories E: Industrial Areas

The Fezile Dabi District Municipality has various industries which are light industries, heavy industry and noxious industries, extractive and agricultural industries.

Metsimaholo

- The manufacturing in this area is of high technology industry.
- The manufacturing is the largest sector in Fezile Dabi, and it contributes 27.0% to the total GVA in the district economy.
- The Metsimaholo Local Municipality (LM) is where manufacturing sector is thriving and it contributes 40.09% to the GVA, which makes it the largest contributor in the district.

- In Metsimaholo LM, there is also Natref refinery which is South Africa's only inland crude oil refinery. Natref refinery is a joint venture between Sasol oil (PTY) LTD and Total South Africa (PTY) LTD.
- Petrochemicals manufactured in Sasol include fuels, waxes and polymers.

Moqhaka

- Diamonds deposits are present in the vicinity of Moqhaka Local Municipality (Moqhaka SDF 2018/19, page 51)
- The Moqhaka Local Municipality also hosts local industries of milling (Premier milling and Senwes milling) in Kroonstad.
- Moqhaka also host engineering companies (Octa)-in Kroonstad.
- Kroonstad has three industrial areas serving the area which are Kroonindustria for light industries, the Industria for heavy industries and Gunhill for heavy industries. Kroonindustria and Industria are situated to the North West of Kroonstad and Gunhill is situated to the South.
- There is a proposal to establish an industrial park adjacent the N1 highway on the North Kroonstad.
- The Gunhill Industrial area serving as a petroleum depot is situated next to Suidrand residential area, which causes a concern for safety.
- Viljoenskroon and Steynsrus areas have agriculture industrial development potential (Moqhaka SDF 2018/19)
- Viljoenskroon has two industrial areas, which are for heavy and noxious operations and a light industrial area.
- There is no large-scale industrial development in Steynsrus at the moment.
- There is lots of mining taking place in the Moqhaka Local Municipality.

Mafube

- There are plans to open a Kraft paper factory in Frankfort (the project will be funded by IDC)
- Agro processing work is done in Frankfort
- Construction and transport are the lowest contributing sectors.
- There road infrastructure in the industrial areas needs to be repaired
- There is a proposal for the establishment of Mafube brick manufacturing
- Frankfort is servicing the farmers around the area, by providing and fixing tractors and other farming equipment.
- The silos in the areas are used for grain storage

Ngwathe

- The existing industries in Heilbron are Simba, Tudor, Peter's Knitwear, and Michrochem amongst many others.
- There is granite mining industry in Parys
- Tourism industry is doing well in Parys and around the Vredefort Dome.
- Mining activities of Bentonite takes place in Koppies

There is a need for the development and allocation of new industrial land.

To develop and grow the industries in the district the following are proposed:

- Rezoning of public spaces for industrial development in suitable areas.
- Old industrial areas must be upgraded and have infrastructure such as roads, electricity, and water and refuse collection around them.
- Both rural and urban industries must be supported by the provision of proper and relevant infrastructure in order to attract more investors.

3.7.8 Cemeteries

Spatial Planning Category D: Urban Related Areas

Common matters on cemeteries

- All the municipalities in the district will need a further extension of the existing sites or identification of a new site for cemeteries because of new township extensions, population growth, high death rates and urbanisation.
- Most of the cemeteries in the district are approaching full capacity, allocation of land is needed.
- Some cemeteries are located in rocky areas where burials are difficult.
- In Frankfort and Villiers additional land for burial is needed. In Frankfort sites burial sites have been identified but proper town planning process has to be undertaken.
- Management and maintenance of all the cemeteries is needed.
- Unmaintained cemeteries become a haven for criminals and thieves.
- The cemeteries need to be fenced and cleaned.
- Cemeteries must have ablution facilities and running water.
- Historic graves in all towns are heritage components that need to be preserved and conserved.
- The historic battle graves must be profiled for the tourism of the district, e.g. the R82 road battle graves.

- Prior geological, geo-hydrological investigations and EIA have to take place before a site can be legally declared as a cemetery.
- It is recommended that local municipalities must draft Bylaws for the management of cemeteries.

3.7.9 Landfill Sites

Spatial Planning Category F: Surface Infrastructure & Buildings

Common matters on the Landfill Sites in the district.

- There is growth of population in the urban and farm areas generating more waste.
- Bylaws must be drafted and reviewed to address waste recycling, waste minimisation and waste management.
- Landfill site selection requires both technical and public acceptance.
- Environmental Impact Assessments (EIA) must be conducted.
- Geo-technical investigations, geo-hydrological investigations must be conducted.
- When the Landfill sites have reached capacity, investigations have to take place in order to commence identifying new sites
- Illegal dumping has to be discouraged, be stopped and be punishable.
- Landfill sites should not be developed or not allowed within 500m of residential sites.
- Landfill sites should be managed to minimise land and air pollution.
- Illegal scavenging is taking place at landfill sites and that is a problem.
- In Cornelia, Frankfort, and Villiers landfill sites are licensed but are in a poor state due to maintenance and lack of human resource. The Mafube Local Municipality is incapacitated and has limited machinery to manage the landfill sites. (Mafube Spatial Development Framework 2024-29, page 94).

Local Municipal Landfill Sites

TABLE 11: LOCAL MUNICIPAL LANDFILL INFORMATION, SOURCE: LOCAL MUNICIPAL SDFs AND MUNICIPAL OFFICIALS.

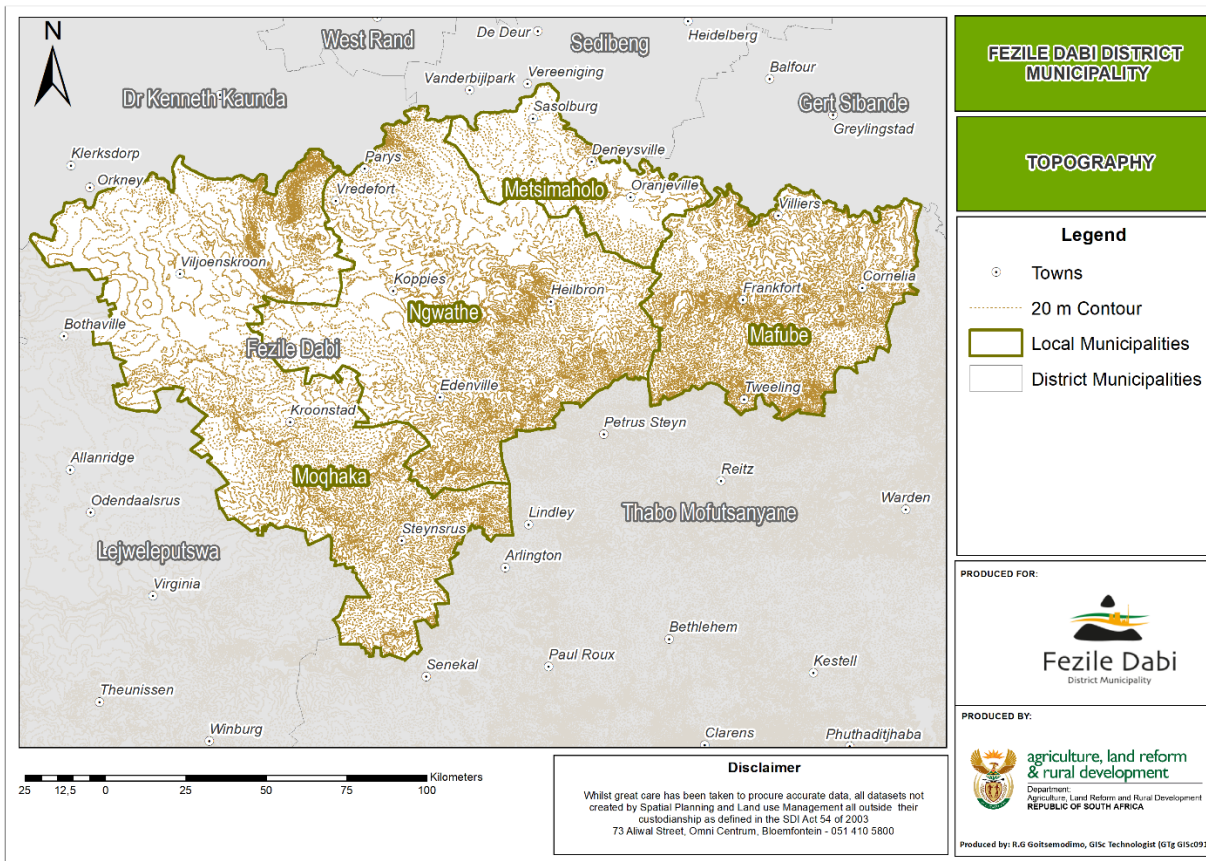
Local Municipality	Licensed Yes/No	Relocation	New Landfill needed	New Landfill identified already
Metsimaholo	Sasolburg -Yes Deneysville -Yes Oranjeville – Yes		• Sasolburg - regional • Deneysville	Alternatives for future Regional Landfill site:

				• South of Kragbron & Northeast of Sasolburg industrial area) • Sasolburg /Deneysville road • Closer to Deneysville
Mafube	Frankfort -Yes Villiers - Yes Tweeling -Yes Cornelia -Yes	• Frankfort • Villiers • Cornelia • Tweeling	• Tweeling	• New Site for Tweeling
Moqhaka	Kroonstad –Yes Renovaal-No Viljoenskroon-Yes Steynsrus –Yes	• Kroonstad – service providers will advise	• Steynsrus –service providers will advise	• Rammulotsi -- construction of a new site is taking place.
Ngwathe	Parys –Yes Vredefort – Yes Heilbron – Yes Koppies – Yes Edenville -Yes	• Parys next to the Dover Road.	• Phiritona to be located to the West (Greenlands Road) • South of Edenville be utilised.	

3. 8 Biophysical Analysis

3.8.1 Topography of the Study Area

The terrain of the district is comprised of flat plains with low relief hills and mountains with moderate and high relief in the north east. The topography of the area is characterised by being fairly flat and gently sloping in the central eastern and south eastern parts of the study area. The flat topography is mainly due to the horizontal strata forming part of the Karoo formations that underlie the greater part of the study. (Source: Fezile Dabi Integrated Waste Management Plan 2011). The Moqhaka and the Ngwathe areas are characterised by some ridges and valleys. The Vredefort Dome is the other topographical feature that consists of a central cone of granite surrounded by concentric ridges of quartzite.



MAP 14: THE FEZILE DABI TOPOGRAPHY

3.8.2 Climate and climate change

The Free State Climate is said to be a continental climate. The continental climate is characterized by warm to hot summer and cool to cold winters. The Free State province experiences minimum temperatures of below 0 Degrees Celsius in winter and maximum temperature of above 33 Degrees Celsius in summer (Source: FSGDS 2007). The Free State province is a summer rainfall region which ranges between 600mm and 750mm. The climate change may increase the risk of flooding and in some areas, it may increase the risk of drought. The Climate Change Response Strategy for the Free State Province highlights projected changes in the following areas;

- Average temperatures
- Very hot days
- Heat waves
- High fire danger
- Rainfall events
- Dry spells

3.8.3 Agriculture

Spatial Planning Category C: Agricultural Areas

The Agricultural sector plays an important role in the food security, provision of labour, the growth of the economy and rural development. The Free State is known as the **“Bread Basket”** of South Africa. At least 90% of its land is used for agriculture. Agriculture contributes approximately 90% to the province's economy. In the Fezile Dabi District Municipality agriculture is of livestock farming, maize, wheat, sorghum, potatoes, groundnuts, and sunflower and soya beans planting. In the PSDF (p81) the Fezile Dabi area is described as the heart of wheat and maize production in the province. It also indicates that sunflower, tobacco, sorghum, peanuts and cattle are also major farming commodities. Agriculture is one of the main industries in the Fezile Dabi District contributing 12% to the economy. Climate change will have negative impact on the agricultural production. The growing of plants season in the Fezile Dabi area is late October to early April.

TABLE 12: AGRICULTURAL PRODUCTION PER LOCAL MUNICIPALITY

Mafube

Frankfort- Serves the agricultural community and specialises in butter production, grain silos and service centre for farmers.

Tweeling – sheep and cattle farming are dominating

Maize and sunflower seed

Villiers- maize, sunflower, wheat, grain, sorghum

- Meat and dairy products

-Grain silos

Moqhaka

Kroonstad—Agriculture community, grain silos, service centre for farmers, maize, dairy, wool, wheat and meat.

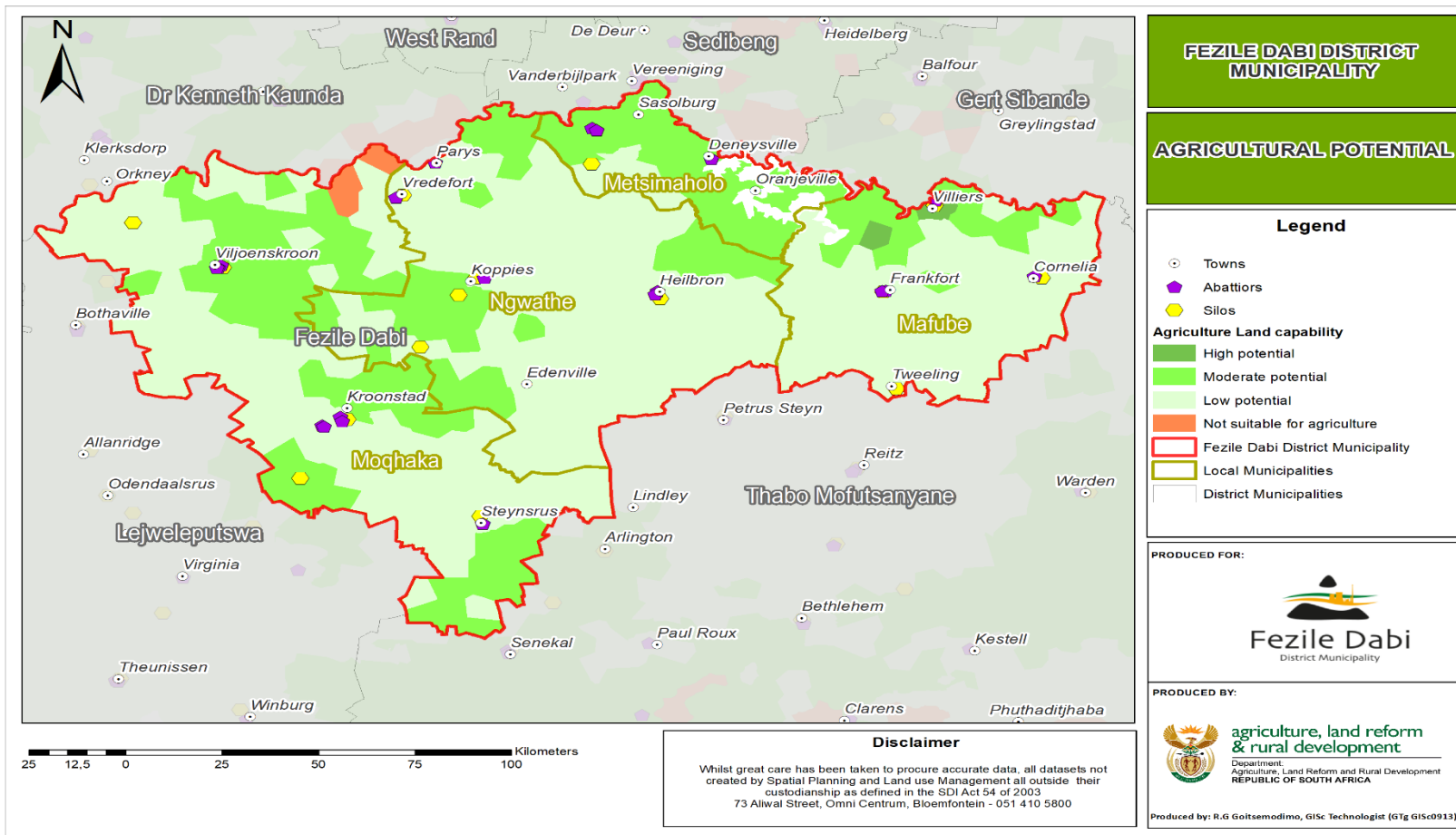
Viljoenskroon –Agricultural area of extreme significance, grain silos

Steynsrus – servicing the agricultural community

Ngwathe

Koppies-Agricultural significance area, agricultural service centre

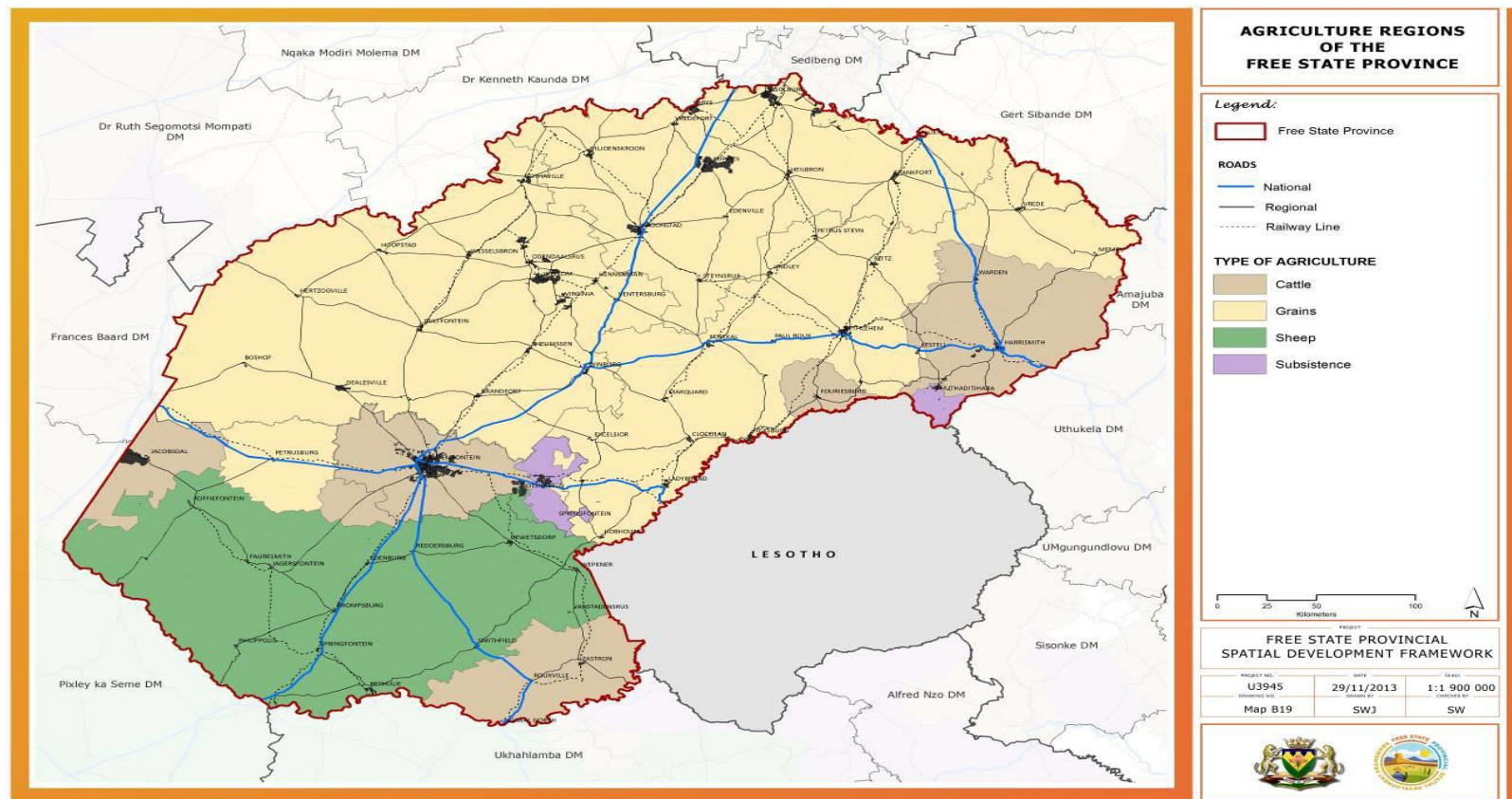
Edenville –Agricultural significance area



MAP 15: THE AGRICULTURAL POTENTIAL IN FEZILE DABI

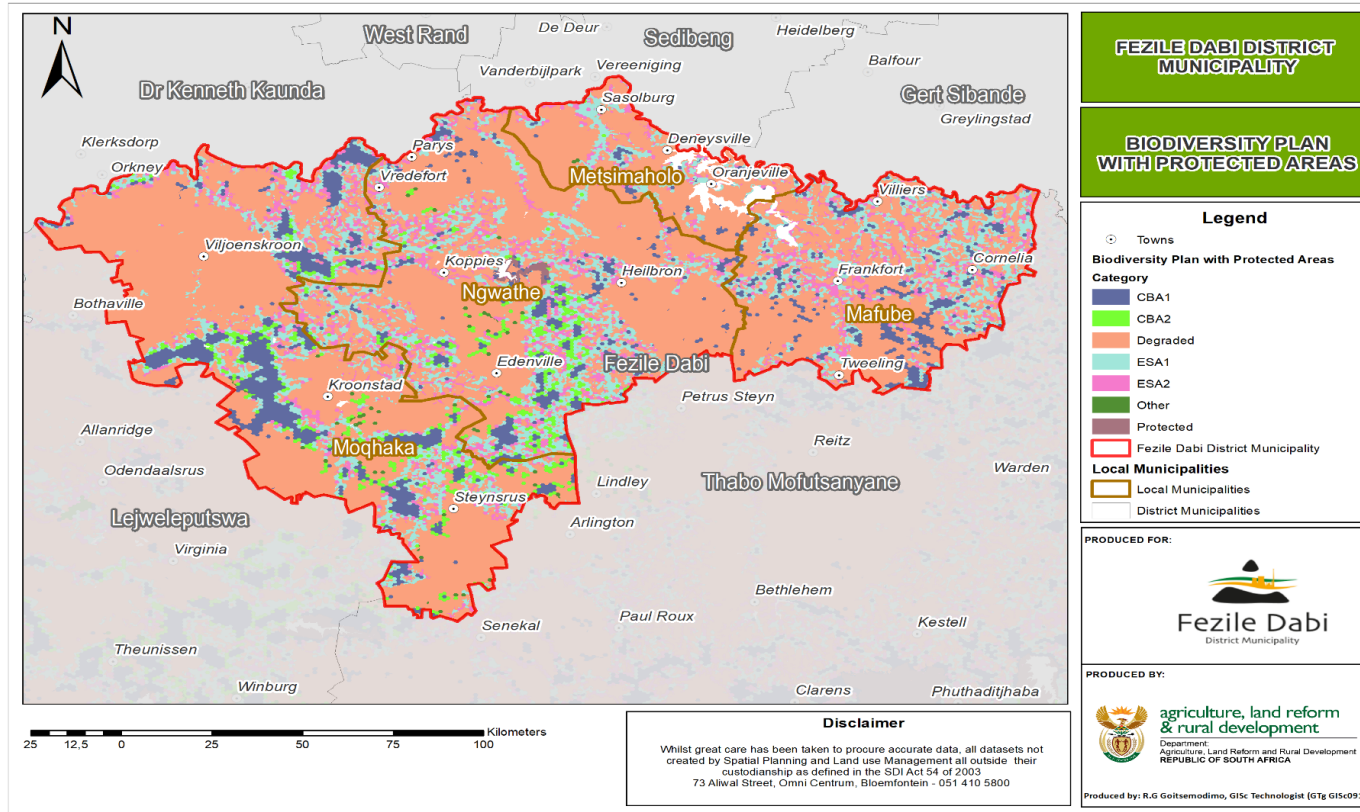
TABLE 13: MAIN AGRICULTURAL ACTIVITIES AND PRODUCTION PER DISTRICT MUNICIPALITY IN THE FREE STATE (PSDF 2017)

REGION	MAIN AGRICULTURAL ACTIVITIES
Mangaung	• Commercial livestock • Potatoes and sunflower
Xhariep	• Sheep farming • Grapes (Jacobsdal), potatoes and walnuts
Lejweleputswa	• Maize, • Wheat, sunflower, nuts, vegetables, dairy, and livestock
Thabo Mofutsanyane	• Produces 90% of South Africa's cherries • Asparagus, soya, sorghum, sunflower, potatoes, wheat, and other important crops.
Fezile Dabi	• Heart of wheat and maize production in the province • Sunflower, tobacco, sorghum, peanuts and cattle



MAP 16: AGRICULTURAL REGIONS OF THE FREE STATE (PSDF 2017)

3.8.4 Biodiversity and Ecosystem Spatial Planning Category A & B: Core & Buffer



MAP 17: BIODIVERSITY PLAN WITH PROTECTED AREAS

The vegetation of the Free State Province is dominated by grasslands.

Protected areas in Fezile Dabi are the following;

- Natural environment
- Vaal River
- Vaal Dam
- Vredefort Dome
- Fossil Site (Cornelia Fossil bed)
- Koppies Nature Reserve and other nature reserves
- Wetlands
- Vredefort Dome

Metsimaholo Local Municipality

- 45% of Metsimaholo is a natural habitat. There are no formal land-based protected areas or RAMSAR sites in the municipality.
- There are two biomes, namely, Grassland and Savanna.
- There is one endangered ecosystem, namely, Deneysville Highveld Grassland.
- There are two vulnerable ecosystem which are (1) The Eastern Temperature Freshwater Wetlands and (2) Soweto Highveld Grassland.

Mafube Local Municipality

- Deneysville Nature Reserve
- There are no normal formal land based protected areas or RAMSAR sites in the municipality.
- There is no critical or endangered ecosystem.
- There is only one biome, namely, Grassland.
- Three vulnerable ecosystems in the local municipality are (1) Eastern Free State Clay Grassland, (2) Eastern Free State Wetlands and (3) Soweto Highveld Grassland.

Moqhaka Local Municipality

There are no formal land-based protected areas or RAMSAR sites in the municipality.

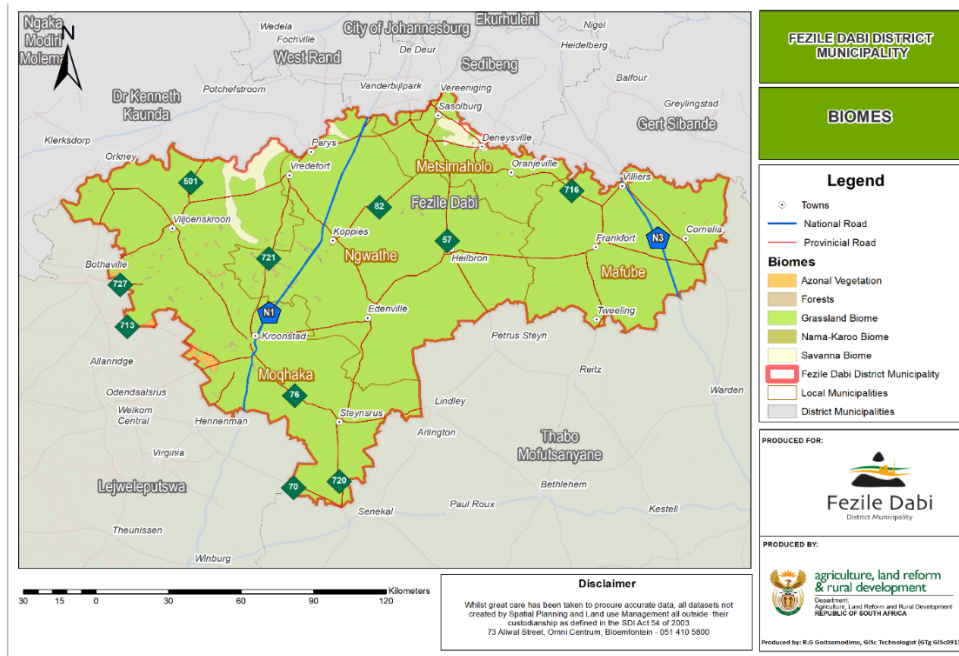
There are two biomes, namely, Grassland and Savanna.

Twelve vegetation types cover the municipality grassland.

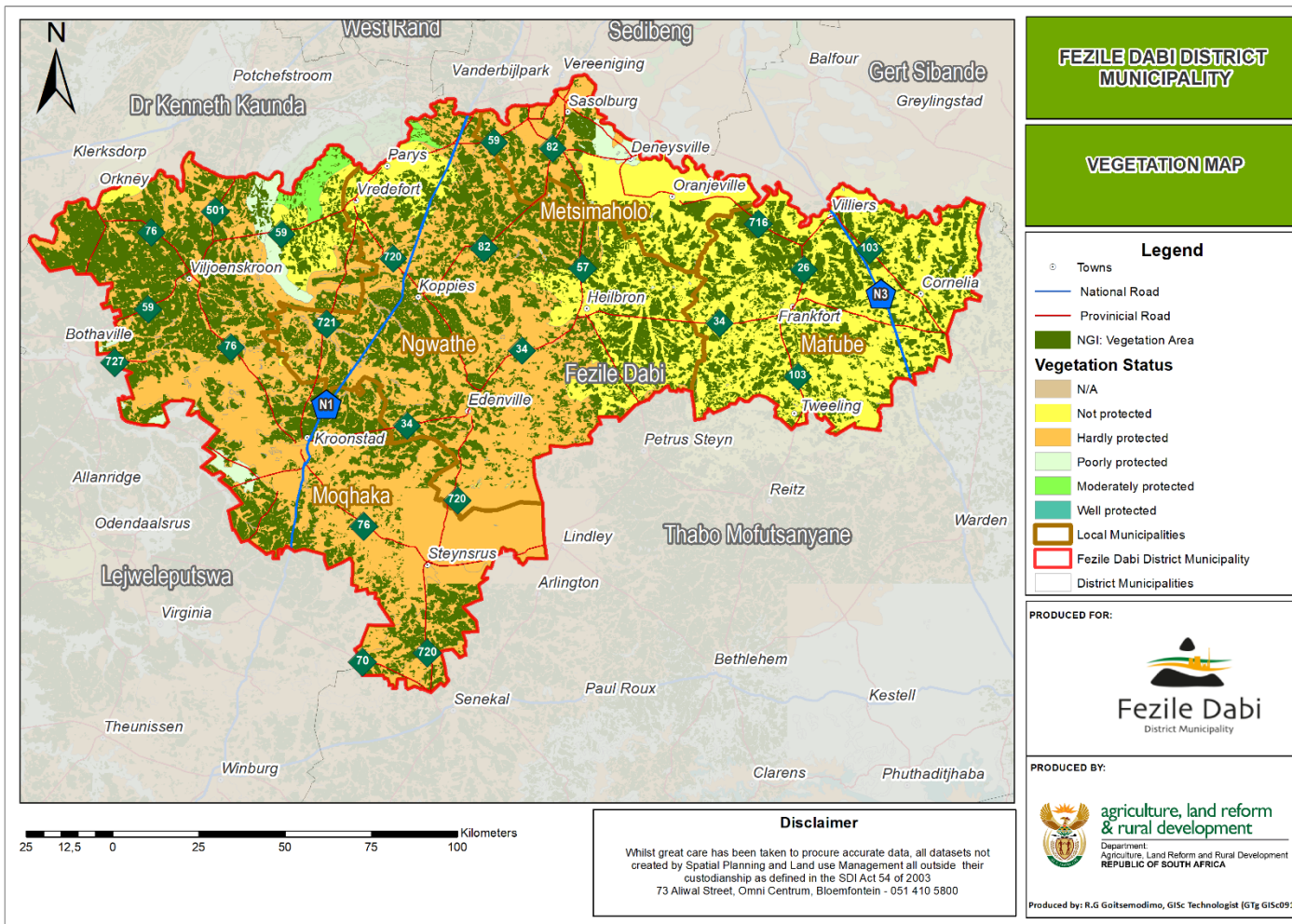
There is one endangered ecosystem, namely, Vaalvet Sandy.

Ngwathe Local Municipality

There are two Biomes found in Ngwathe Municipality, namely, the Grassland and Savannah.



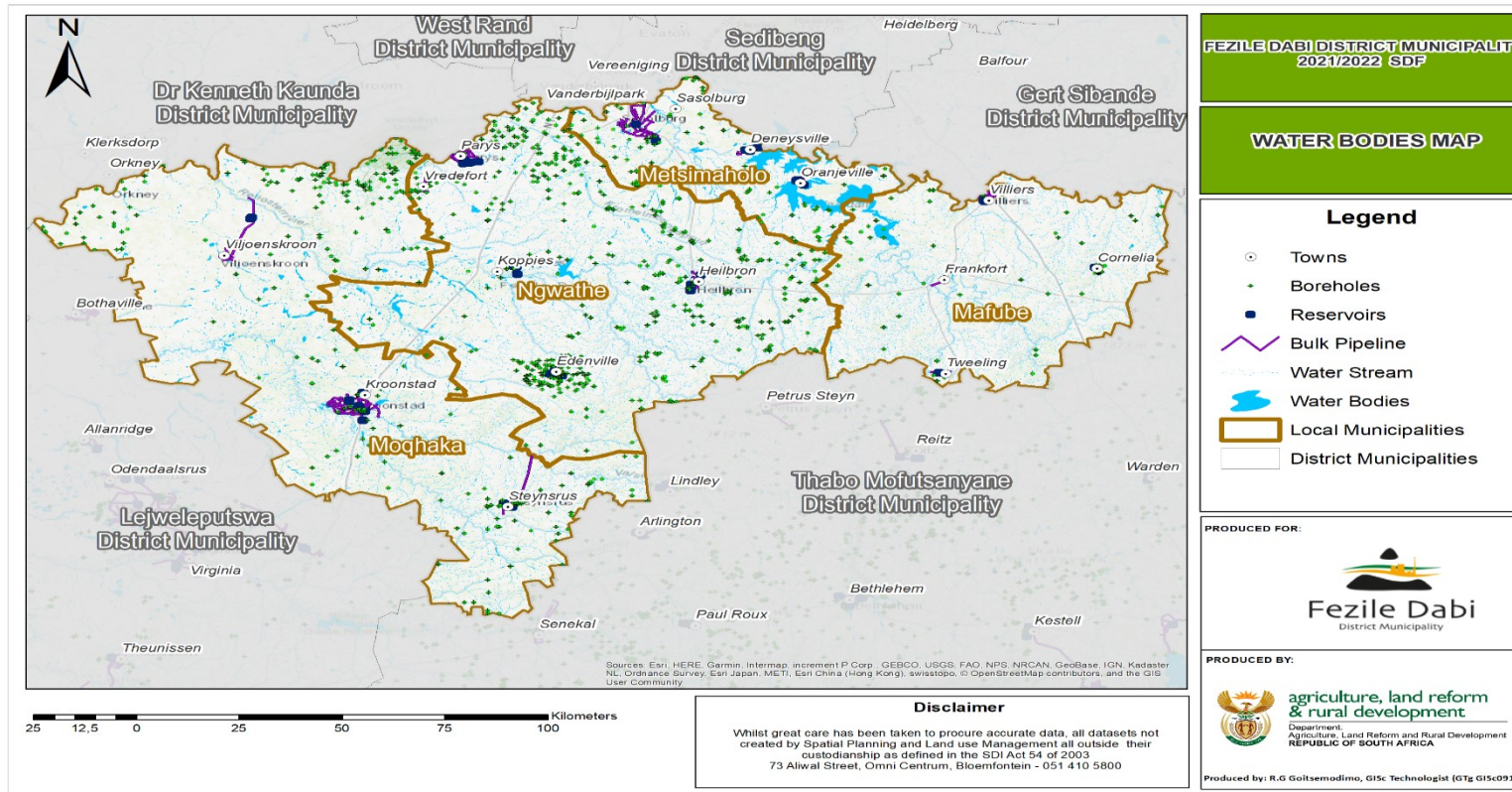
MAP 18: THE BIOMES IN FEZILE DABI



MAP 19: THE VEGETATION IN FEZILE DABI

3.8.5 Hydrology and Water Resources

Spatial Planning Category A & B: Core & Buffer



MAP 20: THE WATER BODIES IN FEZILE DABI

South Africa is a water scarce country even though there is plenty of water resources and water bodies in the country. We have to save water because water is an essential resource which is becoming scarce in the country because of the climate change. The Free State province has 12 state dams, and this makes the Free State to be regarded as the most water rich province. (Agriculture Master Plan of the FS, p38) and yet there is a lot of struggling in terms of having water for home use, business use and agricultural use. The water catchment that manages the Vaal River in the Fezile Dabi Region is the Upper Vaal Catchment (WMA 08) and the Middle Vaal (WMA 09). The Department of Water Affairs is responsible for managing water and giving authorisation for agricultural and other developments water use.

The Water Management Areas (WMA) of the Free State Province are the following;

1. Upper Vaal (WMA 08) –Vaal River, Wilge River, Liebenbergsvlei River
2. Middle Vaal (WMA 09)-Renoster River, Vals River
3. Lower Vaal (WMA 10)
4. Upper Orange (WMA 13)

Source: PSDF 2017

The Vaal River

The Vaal River originates from the Drakensberg mountains in the Mpumalanga province. The Vaal River forms a boundary between the Free State and Mpumalanga, North West, and the Gauteng provinces. The Vaal River supplies Gauteng, the economic hub of South Africa and other provinces with water. The Free State province has two catchments, namely, the Orange River and the Vaal River. The Fezile Dabi District Area is in the Vaal Hydrological Zone. The Orange River, the Vaal River and their tributaries are the sources of surface water in the Free State Province and other surrounding provinces. The Vaal River has two dams which are the Vaal Dam which is on the southern part which falls within the Free State Province and the Bloemhof Dam at Bloemhof in the North West province. The Vaal River runs past the town of Sasolburg, Parys and Villiers.

The Vaal River Pollution

One of the most critical challenges facing the Fezile Dabi District is the pollution and contamination of the Vaal River and its tributaries. This condition and situation affect water quality and the river negatively and it is therefore calling for collaborative action. The problem of water pollution is caused through dysfunctional waste water treatment plants, burst sewer pipes, blocked manholes, raw sewerages, runoffs from the mines and industries and agriculture, urban and rural settlements lifestyles. These activities compromise the quality of water and threaten the aquatic fauna and flora life. Sewerage loving plants are flourishing in the Vaal River choking the river. Recently a new problem of alien invasive species called **Water Lettuce** and **Water Hyacinth** which are floating plants have invaded the Vaal River from Vereeniging downstream to the barrage.

In February 2021 the South African Human Rights Commission (SAHRC) released a report that the Vaal River is polluted beyond “acceptable levels”. According to the report, the human rights, dignity, freedom and security were violated. The report cited the following as cause of the state of pollution;

1. mismanagement in some municipalities
2. malfunctioning sewer works
3. malfunctioning waste water treatment works

SAHRC recommended that government take urgent and comprehensive action.

The Fezile Dabi District Municipality must join hands with the responsible departments and municipalities, communities and interest groups to save and protect the river from the “Demise”.

Development Objectives of the Vaal River Regional Spatial Development Framework (VRRSDF)

The most pertinent challenge for the VRRSDF is the imminent threat of losing the river.

According to the VRRSDF the Vaal River has lost value to the local economy, regional economy, job opportunities, income for the municipalities. The VRRSDF recommends that trade-offs be considered where possible to ensure that sustainable development is not lost or compromised.

The VaalDam

The VaalDam is often referred to as the “**Highveld Inland Sea**”. The VaalDam forms the storage reservoir for the Vaal River. The VaalDam often has low water levels because of the drought. In some other years the VaalDam become flooded due to the heavy seasonal rains. The VaalDam supply Gauteng and the Free State provinces with water.

The Koppies Dams

There are three dams in Koppies which are Welteverde Dam, Rooiport Dam and the well-known Koppies Dam. Koppies has a well-established and developed water irrigation system to boost the agriculture.

The Vals River

The Vals River is a tributary of the Vaal River. The Vals River is the source of portable water in Kroonstad through the Bloemhoek Dam. The Bloemhoek Dam is located on Joordan Spruit. Moqhaka is one of the municipalities that has a water problem in the district. The reason for the water shortage problems in Moqhaka is said to be due to drought which limits the seasonal flows in the rivers. The other reason is the aging infrastructure which needs to be upgraded. The Moqhaka municipality also needs to build more reservoirs for water storage.

The Renoster River is in Viljoenskroon in the Moqhaka local municipality. It is a tributary of the Vaal River that originates from Petrus Steyn and flows North West into Koppies Dam and joins the Vaal River at Renovaal.

The Wilge River, the Vaal River and the Liebenbergsvlei River are the three sources of raw water in the Mafube Municipality.

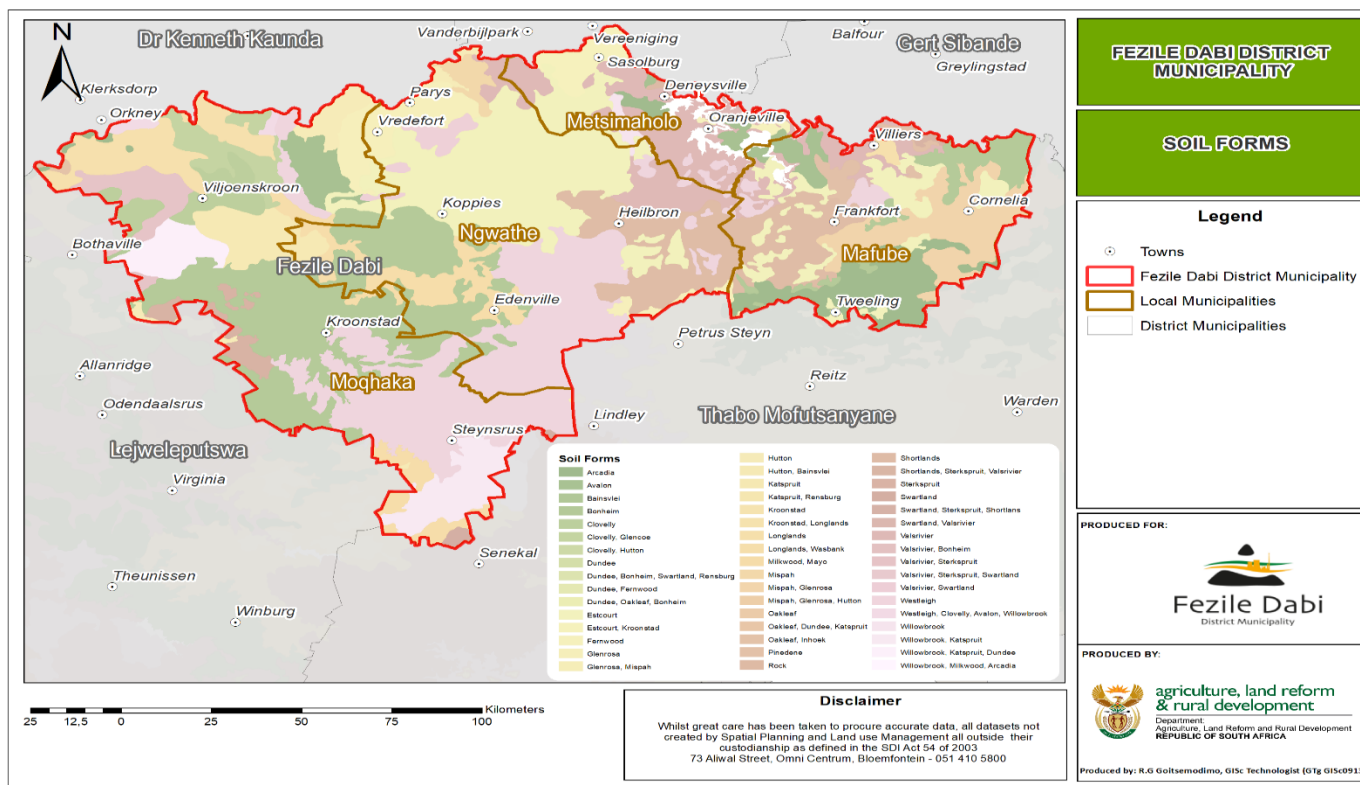
The Vaal River Barrage

The Vaal River Barrage below the Vaal Dam serves as a reservoir and a backup with recreational facilities for the Free State and the Gauteng provinces.

3.8.6 The Soil / Geology

The Fezile Dabi District Municipality is underlain by a number of different geological types. In Parys and some parts of the Ngwathe municipality there is granite and andesite. The soil in Parys is red, yellow and greyish soil with a low to medium base status.

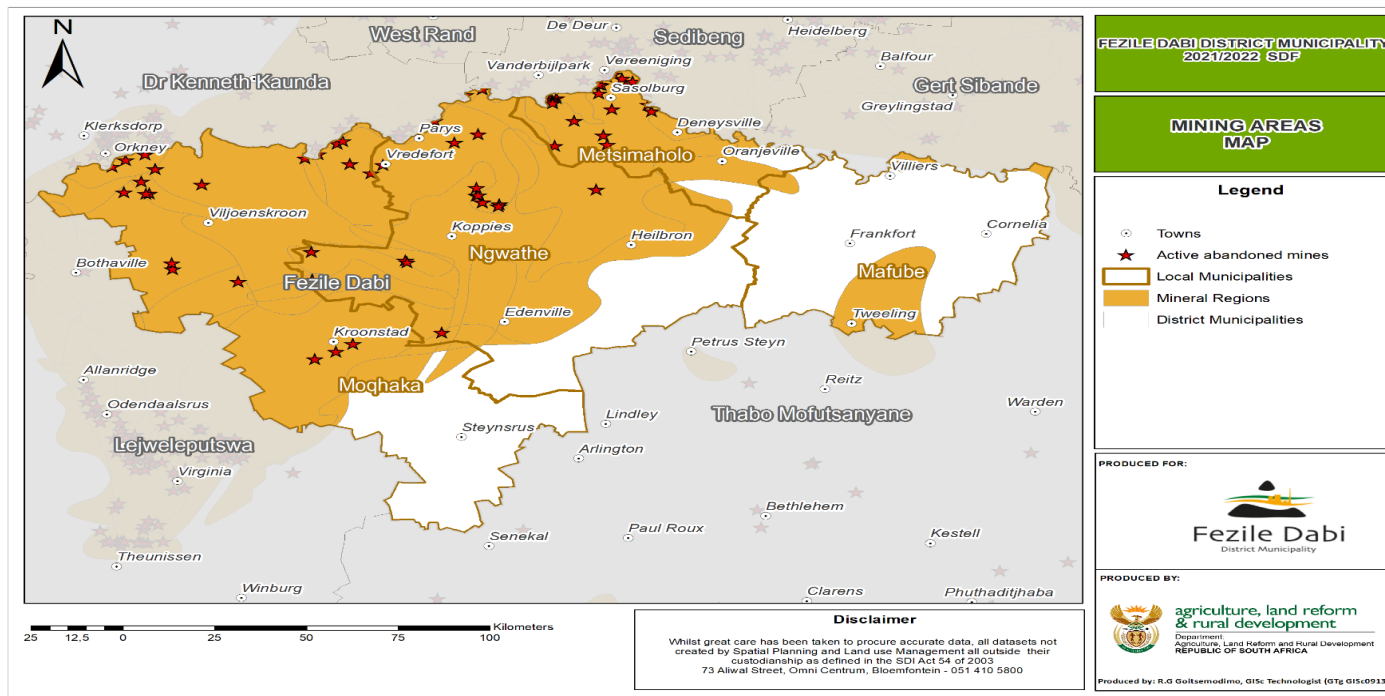
90% of the province's soil is highly suitable for agriculture. The Fezile Dabi (15, 4%) and Lejweleputswa (23, 6%) district municipalities have the highest percentage of suitable soil for agriculture. (Free State Growth and Development Strategy 2007).



MAP 21: THE SOIL FORMS IN FEZILE DABI

3.8.7 Mining

Spatial Planning Category E: Industrial Areas



MAP 22: THE MINING AREAS IN FEZILE DABI

South Africa has 18 coal mines and two of those mines are in the Free State. Sasol contributes 5% of the national GDP. Mining is a very important economic sector for every community. Mining has been for many years contributing to a high employment rate in South Africa. It has also contributed largely to the migration of people from within provinces and people from outside the borders of South Africa to move to the mining towns of South Africa to seek employment.

In 2016 mining, is said to have contributed about 21% to the GDP of the country. It has fallen from being ranked 7th sector to the 10th in 2016. Even though mining has lost its leading position, it is still an important employer in the country. The employment in this industry has declined from 538 144 in 2012 to 490 146 with a loss of 47 998 jobs. (Source Stats SA).

3.8.8 The Land Reform

The Department of Agriculture and the Department of Rural Development and Land Reform are facilitating growth in agriculture and land reform by offering the **ILIMA /LETSEMA** and the **CASP** grants in the Fezile Dabi District. The two programs support the small-scale farmers in their efforts to produce food, to do livestock farming and to give the rural economy a new life through agricultural projects. Government is committed to support farmers with infrastructure, marketing, agro processing, land preparation, training and mentorship.

CASP is the Comprehensive Agricultural Support Program which aims at growing and supporting individual small holder farming enterprise. **Ilima /Letsema** is a conditional grant that aims to reduce poverty through food production initiatives. It aims at assisting vulnerable South Africans farming communities to achieve an increase in agricultural production and invest in infrastructure in identified grain, livestock, horticulture and aquaculture. The Departments Agriculture and Land Reform in the Free State and the District provide different services such as extension and advisory services, veterinary services, agricultural economics and research.

CHAPTER 4

4 Spatial Proposals

4.1 The Spatial Proposals

The Spatial Proposals are referenced from the Spatial Themes of the Biophysical, Socio-economic and Built environment. They are also built from the SWOT analysis which is Strengths, Weaknesses, Opportunities and Threats and the Status Quo of the district. These spatial proposals are linked to the IDP of FDDM, the DDM, and the Vaal Regional SDF, the FSPSDF, the NSDF and other planning documents. The levers identified in the proposals interact with the development process and they will be adhered to in the planning and implementation of the SDF. The Levers are used to refer strategically on focus areas or priorities that were identified to make decisions and resource allocation.

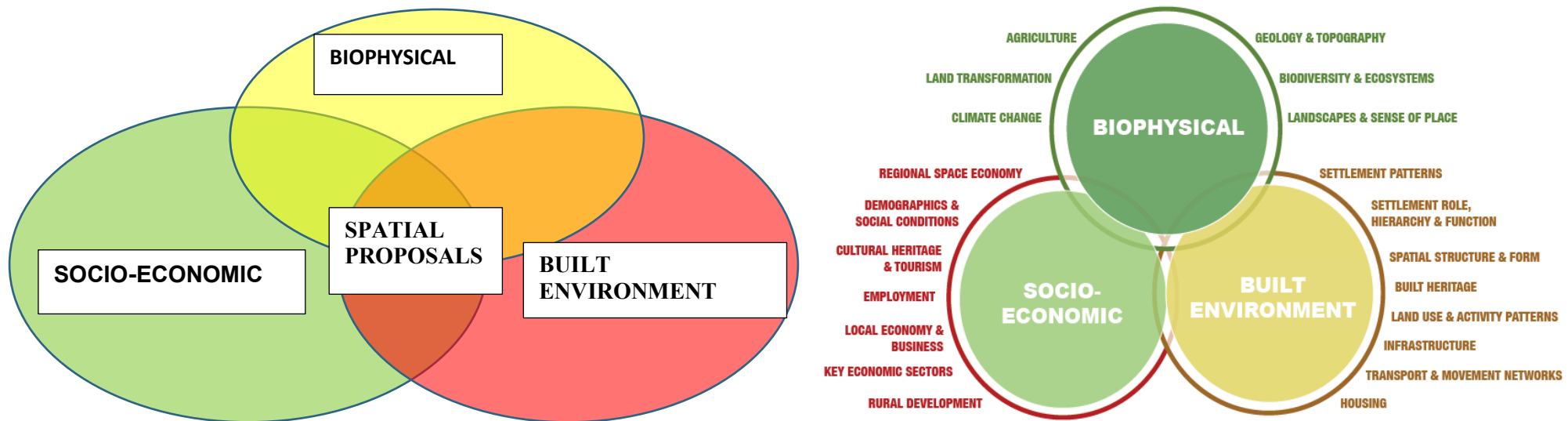


FIGURE 10: SPATIAL PROPOSAL MATRIX

The Spatial Focal Themes Integration and Formation of Spatial Proposals: Spatial Themes of the Status Quo

The Spatial Proposals are referenced from the above

A. Built Environment

Lever 1: Transportation and movement networks improvement for better connectivity, access and mobility

Driver: Building, upgrading and maintaining of roads, railway systems

- Build, repair and maintain the good condition of the roads in the district.
- Rebuild railway stations and revive the rail transport system that connects towns, districts and provinces
- To Support public transport, renovate and build taxi ranks and bus stops
- Build sidewalks and bicycle tracks to support non-motorised transport
- Promote safe pedestrian movement networks with infrastructure.

Driver: Policy and Regulations

- Law and order needed for traffic management
- Safety standards meted regarding vehicles and roads

Lever 2: Infrastructure development as a catalyst for growth and development

Driver: infrastructure for economic growth and development

- Build and provide infrastructure to attract business in newly identified business zones like SEZ and other precincts identified for development in FFDM
- Repair and maintain the condition of the roads for efficient movement of goods and services
- Using infrastructure to connect communities, whereby accessibility to jobs, schools, amenities is improved
- The condition of the roads and streets must be improved for easy accessibility and connectivity to boost both the formal and informal businesses.

Driver: Improved access to services

- Better infrastructure access essential services like healthcare, education, and clean water
- Introduce the broadband access to internet facilities with innovation, digital commerce and connectivity.
- Access to Information Communication and Technology provides benefits like better education opportunities, enhanced economic participation, etc.

Lever 3: Promote integrated human settlements

Driver: Support sustainable human settlement

- Promotion of integrated high density residential areas avoiding urban sprawl and fragmented settlements
- Human settlements built close to social and economic amenities.
- Intergrade human settlements through different housing typologies
- To promote densification and infill developments with resilience and reduced fragilities

Driver: Availability of adequate and suitable land for human settlement

- Physical integration of housing development for easy access to transport, amenities and economic activities
- Addressing the housing backlog in the district

Lever 4: Spatial Structure and Form

Driver: Using Spatial planning as a tool for development

- To guide private investment through spatial location of the infrastructure
- Areas where the roads, bulk water, sewer, electricity and sanitation are located become attractions and preferred locations for private investment
- Inclusion of poor households to areas of accessibility economic opportunities for a productive livelihood.

Lever 5: Promoting tourism through built heritage in FDDM

Driver: using various marketing strategies to showcase FDDM's tourism through built heritage

- Advertising the tourism potential of FDDM through the social media marketing

- Organising experiential marketing with events and activities
- Host virtual tours and livestreams to give people a glimpse of what FDDM can offer.

B. Biophysical

Lever 1: Improve Agriculture

Driver: Diversify and expand agricultural development and food security

- Add value to agricultural products for local use and export, protect food security and create employment
- Maize is a value adding product producing various products such as food, animal feed and biodiesel etc.
- Accelerate land reform and post-settlement programmes.
- Relevant government departments must be supported to roll out programmes for women and youth empowerment in agriculture.

Driver: Establish and fast-track value adding agro processing (beneficiation)

- Achieving diverse applications of Agro-processing beneficiation from a wide range of products like vegetables, grains, meat, fruits and dairy.
- Producing Biodiesel from the vegetable oils or animal fats

Driver: Implementing, managing and overseeing key legislation

- To provide mitigating measures to counteract the loss of agricultural and impacts from non-agricultural developments.

Driver: Strengthen agricultural research, knowledge and skills

- Partnership with institutions of higher learning and agricultural / farming institutes to advance research development and innovation.

Lever 2: Prioritise Biodiversity and Ecosystem

Driver: protect biodiversity and agricultural resources

- Maintain balance between the environment, agriculture and tourism, industrial and tourism activities
- Protect rivers, dams, air, the soil, from pollution
- Protect habitats, parks and nature reserves.

- Promote the use of renewable energy, waste management and resource recovery.

Lever 3: Climate Change

Driver: to mitigate climate change negative effects

- Transitioning to renewable energy sources such as solar power and wind power
- Conducting education campaigns and awareness to communities on climate change

C. Socio-Economic

Lever 1: Local Economy and Business

Driver: Quality education and skills development

- Education, training and skills development are a foundation for a flourishing economy.
- Supporting Early Childhood Development (ECD) and Adult Basic Education and Training (ABET) programmes.

Driver: Government and private sector collaboration

- Collaboration of government and private sector will stimulate innovation, create jobs, increase productivity that will lead to growth
- Innovation is a vital tool that will boost the economic growth
- The collaboration will further enhance the sharing of resources and expertise that can address economic challenges.

Lever 2: Prioritise youth education for employment in urban and rural areas

Driver: Combating hunger, poverty and crime through youth employment

- Employment opportunities in both urban and rural areas must be researched, and the youth must be trained and be empowered for those jobs
- Education and employment are closely linked, education should be a priority for youth for better chances of employment
- To increase employment in rural areas, agriculture must be supported, and the infrastructure must be improved to make the area convenient and suitable for the youth to stay there and make use of their skills

Lever 3: Supporting key economic sectors

Driver: building, maintaining and managing enabling infrastructure for economic sectors

- Investing in critical infrastructure like transportation, renewable/ green energy, water and sanitation by maintaining, repair and building for new developments and the well-being.
- Promoting research and development on economic sectors available and the potential ones for the district.
- Promoting innovation with sectors like mining, agriculture, manufacturing renewable energy, finance and tourism

Lever 3: Cultural Heritage and Tourism

Driver: conserve and strengthen the sense of place

- To prepare a District Heritage Resource Map highlighting economic opportunities within.
- Prepare guidelines for protection of heritage resources in the face of increased urbanisation and vandalism.

Driver: To stimulate tourism

- To prepare a District Tourism Master Plan
- The physical infrastructure (transportation), accommodation, recreational facilities, communication networks, safety and security in the district are necessary for tourism growth.
- To protect tourism, assets, unique precincts like the Vredefort Dome Heritage Sites and many others in the District against vandalism and misuse.
- To market tourism effectively and support tourism establishments in the District.

4.2. Spatial Planning Tools, Elements and Developments

4.2.1 The Nodes (a variety of services and opportunities should be provided at the nodal points)

A node is defined as characterised by a concentration of mixed-use activities around a specific point. “A well-defined and legible urban environment where highly accessible, mixed and compatible land uses are concentrated and serviced”.

Sasolburg, Kroonstad, Parys and Frankfort are being regarded as the nodes in their local municipalities. These towns are service centres, administrative centres and growth points in their respective municipalities.

Sasolburg is the manufacturing node, business node, tourism node, mining node, government administrative node, industrial node etc.

Kroonstad is an agricultural node, mining node, tourism node, business node, government administrative node, service node, industrial node etc.

Parys is a tourism and leisure node, mining node, business node, service and administrative node, etc.

Frank

Frankfort is a growth point, an agricultural node, a service node and administrative headquarters for the municipality.

4.2.2 The Hubs

A hub is defined as a location or a city where a multiple or a segment of industrial activity happens, and business takes place massively.

Petro-Chemical Hub -Sasolburg is being regarded as a Petro- Chemical Hub. Hundreds and different types of petrochemicals are produced from coal. Petrol and diesel, chemicals fuels and lubricants are produced from coal.

4.2.3 Roads and Corridors

The Roads and Public Transportation

“Transport is the heartbeat of South Africa’s economic growth and social development”. “Municipalities must realise the importance of an efficient and effective transport system as a foundation for economic growth development”.

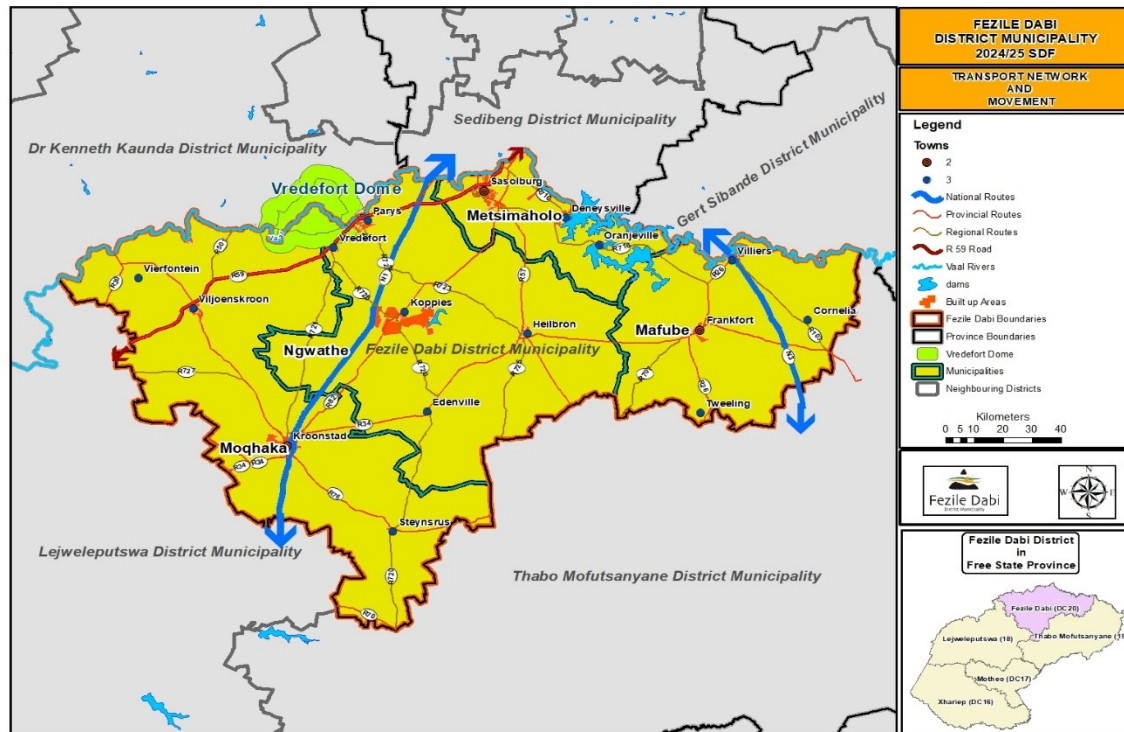
Connectivity and movement network

Fezile Dabi District Municipality is well positioned at the tip of the North Free State Province sharing the border with the Gauteng Province the economic hub of the Republic of South Africa. FDDM has a well-developed road network which facilitates the movement of people, goods and services over short and long distances, internally and externally. FDDM is linked directly with two national corridors the N1 and the N3. FDDM is also linked to well-developed regional roads cutting across the borders of other provinces and the districts. The FDDM towns are also well linked through the road networks which have short cuts and detour routes. The only challenge existing within the transport system is the bad condition of the roads and internal streets.

The road network is an important economic development stimulant and an enhancer of a good quality of life. The roads in Fezile Dabi should function as corridors of development and not conveyors of fast traffic only. Numerous sections of the roads network could be transformed into corridors for different sectors of economy. The positioning of FDDM puts the district at an advantageous position in terms of interconnectedness nationally, provincially, regionally and internally.

Accessibility and movement networks

“Accessibility refers to how easily and quick people can reach different destinations using available transportation options”. There is quite a good level of accessibility to and within FDDM. There is equitable access to services like education, healthcare, employment, leisure facilities, shopping centres and others.



MAP 23: TRANSPORT AND MOVEMENT NETWORKS

TABLE 14: EXAMPLES OF COMPONENTS OF TRANSPORT CONNECTIVITY AT SCALAR LEVEL

Network Level	Infrastructure	Nodes	Services
Macro National, Regional	National highways, primary roads, national railways N1 & N3 R82, R34, R59	• Dry ports (e.g., City Deep) Johannesburg. • Border crossing • Air ports (R59) • Railway stations	Long distance truck services, logistics services, long distance bus services
Meso Inter-city, town to city, rural to urban	Feeder roads, secondary or link roads, provincial roads, some highways R59, R82, R34, R57	• Urban wholesale markets • Warehouses • Transport hubs	Medium distance truck services, local transport services, local buyers/brokers/suppliers, privately owned transport
Micro Intra-village Inter-village Rural to feeder roads	Tertiary roads, rural roads, trails, small bridges, footpaths R79, R26, R716 etc.	• Local markets • Local shops • Local warehouses • Local transport hubs • Bus stops	Privately owned transport, local transport services, buyers/brokers/suppliers

The table above indicate the following;

- All types of roads within the country are available in South Africa
- Different modes of transport are driven on the roads in FDDM
- Different types of nodes can be reached from FDDM.

Public Transportation

The mode of public transport used in Fezile Dabi is Taxi transport. A high majority of Taxi ranks or terminus in the urban areas of Fezile Dabi need to either be relocated or be renovated and upgraded.

Moqhaka;

- The municipality does not have an Integrated Transport Plan (ITP)
- There is a need to upgrade the Taxi rank at Selborne Square.
- A Taxi terminus is needed opposite the Boitumelo Regional Hospital.
- A proper Taxi rank must be built or erected at the Checkers Centre, at Sarel Cilliers Bridge and at Panorama Plaza.
- Viljoenskroon and Rammulotsi Taxi ranks need maintenance
- A Taxi rank must be built in Steynsrus.

Metsimaholo;

- The municipality does not have an Integrated Transport Plan (ITP)
- The CBD of Sasolburg needs a proper Taxi rank.
- The Zamdela Taxi rank needs an upgrading.
- The Taxi rank in Deneysville needs an upgrading.
- The existing Taxi rank in Refengkgotso need to be developed, a shelter and waiting area must be built.

Ngwathe;

- The municipality does not have an Integrated Transport Plan (ITP)
- An informal Taxi rank in Tumahole must be formalised
- Short and Long-Distance Taxi facilities must be built in Kwakwatsi and Vredefort towns.
- Public transport must be availed for farming communities.
- The Taxi rank in Heilbron must be built.
- The primary roads must be improved and upgraded for public transportation.
- In Edenville the Taxi rank must be built.

Mafube;

- The municipality does not have an Integrated Transport Plan (ITP)
- The Taxi rank in Frankfort is far from the CBD.
- The Qalabotjha Taxi rank needs an upgrading.
- The Villiers Taxi rank needs an upgrading.
- The Ntwanatsatsi Taxi rank is well located for residents, it has a surfaced area, a sheltered waiting area and ablution facilities.

Transportation Corridors linked to functionality

The strategic location of Fezile Dabi makes the area easily accessible by the road transport. The roads link Fezile Dabi with many major urban centres in the country. The dangerous state of the Free State's road network has resulted into an increased number in road accidents, fatalities and damages. It is important to note that the Northern Free State and especially rural areas have problems pertaining to the increasing number of potholes on the roads. The road accidents are causing a financial setback to transport owners after the damage to their cars and the loss of lives of breadwinners. Traffic legislation needs to be affected, the demerit system and other tough punishment measures for traffic offences must be implemented in order to stop and reduce the high rate of careless road accidents on the district's roads. The N3 national road between Kwa Zulu Natal and Gauteng handled 70% of the freight that crossed the Free State (which is 30 million tons per annum). The N1 between Gauteng and the Western Cape also carried millions of tons of freight per annum. Approximately 90% of the freight will be for domestic purposes, while 10% will be for exports. The dominant commodities on the corridor are processed foods, coal, chemicals, beverages and fruit produce.

4.2.4 The Classification of Roads

Primary Roads (N)

The primary roads are the N1 and the N3 national roads. These roads are national key points, (Feasibility Study towards the Vaal Regional Spatial Development Framework – February 2019).

- The **N1** national roads is a catalyst for the economic development of the country from Cape Town, through Bloemfontein, through Fezile Dabi District, the Gauteng and Limpopo province to the border of Zimbabwe.
- The **N3** National Road is one of the busiest Freeways in the country that traverses the Fezile Dabi District Municipality from the Gauteng province to the Kwa Zulu Natal province.

Secondary Roads (R)

R57 Road links various towns in the Free State and it also links the Free State province to the Gauteng province.

R59 links the Gauteng province which is the economic hub of the country with the Free State province through the Fezile Dabi Municipality.

R59 is one of the busiest regional roads that cuts across the Fezile Dabi District Municipality.

R34 Forms a link between Kroonstad via Heilbron and Frankfort.

R76 Links the North West via Viljoenskroon, Steynsrus and Lindley to Bethlehem and Kwa Zulu Natal.

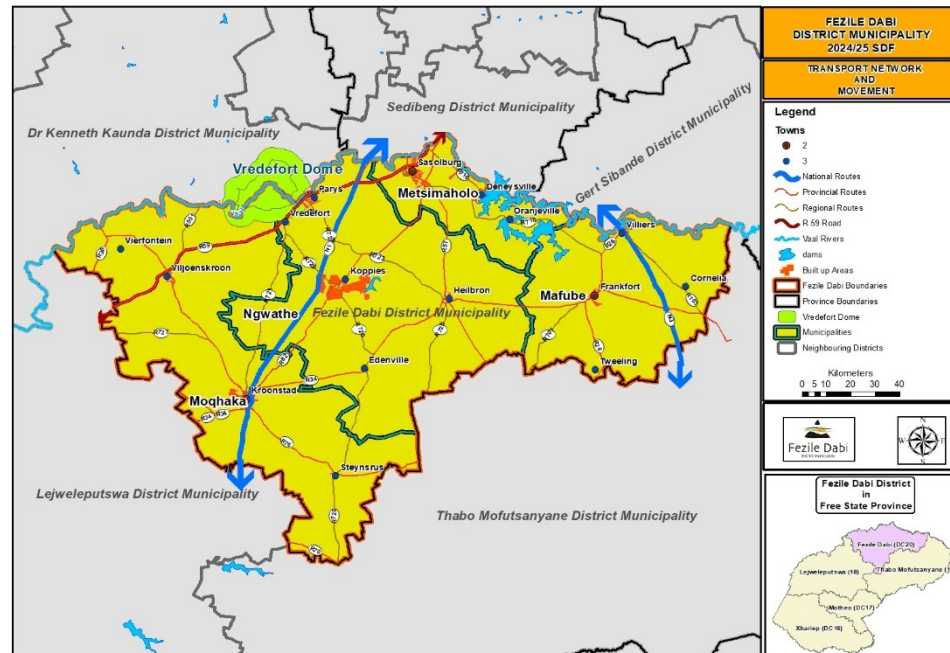
R79 The road is between Vierfontein and Viljoenskroon.

R26, it provides a link of Frankfort via Tweeling with Reitz, and Bethlehem.

Tertiary Roads (Regional Roads)

R159 Is south of the VaalDam, via Jim Fouché Resort, linking Deneysville with Frankfort

R716 The road is on the north of the VaalDam between Deneysville and the VaalDam.



MAP 24: THE ROADS LINKED TO FUNCTIONALITY

4.2.5 Railways

The national railways system passing through Fezile Dabi passes through Kroonstad, Koppies and Sasolburg is being used for freight and logistics. It is not used as a passenger rail line at the moment since the surface of the Covid 19 pandemic. The railway stations in Fezile Dabi are in a derelict and vandalised state at the moment.

4.2.6 Airfields

In the Fezile Dabi District there are five airfields listed below;

- **Parys**- the Parys airfield is well developed and it's operating.
- **Heilbron**-the Ngwathe SDF 2016 & IDP 2020/21 proposed that the airfield should be relocated to another suitable location.
- **Koppies** -has a registered airfield although it is not properly maintained.
- **Kroonstad**- the Kroonstad airfield is well located in the proximity and easy access to the N1 national road. It is small and has no passenger flights. The Moqhaka SDF 2019/2020, page 80, recommends that a potential of turning it into a national air freight hub or dry harbour facility should not be overlooked.
- **Sasolburg** - has no airfield.

Transport Legislation and Policy

The National Land Transport Act (NLTA) 5 of 2009 is the overarching legislation that governs transport planning along all the spheres of government in South Africa. All municipalities must prepare an Integrated Transport Plan (ITP). All the municipalities in FDDM including the district have not developed an ITP yet.

4.3 HUMAN SETTLEMENT AND HOUSING

Section (26) of the Constitution of the Republic of South Africa, 1996, states that “everyone has the right to have access to adequate housing”. The NDP vision is that by 2030 human settlements in the country would be transformed into equitable and efficient spaces. Citizens should live in close proximity to their workplaces, and they should have access to social facilities and have the necessary infrastructure. The SDFs of municipalities has to outline and indicate areas where housing development has to take place. The SDF will take the cue from the IDP needs, cooperate with other sector plans and legislations that are relevant to housing development. It is important to identify the land in terms of its merits, like the locality, proximity to amenities, suitability, ownership and others.

4.3.1 Residential expansion in the Metsimaholo Municipality

According to the Metsimaholo SDF 2016/2017 (p13) there is a continuing shortage of land for housing and development. The SDF further reports that the Metsimaholo Local Municipality is located in an area that is extremely rich in shallow lying coal. It reveals that vast areas are undermined and are not suitable for housing structures, especially due to shallow underground mining activities. Areas of Mooidraai and Amelia are areas of rich coal deposits, but they had to be compromised for housing after negotiations with the mining companies. Current informal settlements and land invasions are indicative of the prevalent housing shortage in the area

4.3.2 Informal settlements and slums in Metsimaholo

“Informal settlements are residential areas where a group of housing units has been constructed on land to which the occupants have no legal claim or which they occupy illegally, unplanned settlements and areas where housing is not in compliance with the current planning regulations (unauthorised housing)”, according to the UN-Habitat. Informal settlements according to the Metsimaholo SDF are found in all the urban areas. In the Metsimaholo Local Municipality they are found in Gortin / Somers Post, Amelia, Mooidraai and Themba Khubeka. They occur on either open erven or on the provincial road reserves. In the Metsimaholo Local Municipality the current database or waiting list shows the housing backlog to be 9 500. Special attention is given to the low-cost housing because it is used to measure the municipal housing delivery. The above information about the Metsimaholo Local Municipality has been extracted from the “**METSIMAHOLO MUNICIPALITY SUSTAINABLE HUMAN SETTLEMENT PLAN 2017/18**”

4.4 The Urban Edge

The urban edge is a legally enforceable line separating the built urban environment from the agricultural or rural land. It can be in a form of a wall, a barrier edge, such as water body, high traffic volume road, etc. It is recommended that all the towns in the local municipalities should have an urban edge that will manage the urban growth. All the previous Spatial Development Frameworks maps and residential developments of the Local Municipalities in Fezile Dabi District Municipality do show or have the urban edge.

The benefits of the urban edge are the following;

- I. The agricultural development land use is in competition with other land uses like residential developments and industries like mining, so the urban edge draws the line between the land uses.
- II. The urban edge manages urban growth.
- III. It contains urban sprawl and increase densification and infill development
- IV. It curbs the loss of the biodiversity.

- V. It curbs the loss of agricultural land and the increase of pressure on the water resources
- VI. It curbs the extension of infrastructure use and services to unplanned areas.

The urban edges can be changed or extended from time to time when there is a pressurising need.

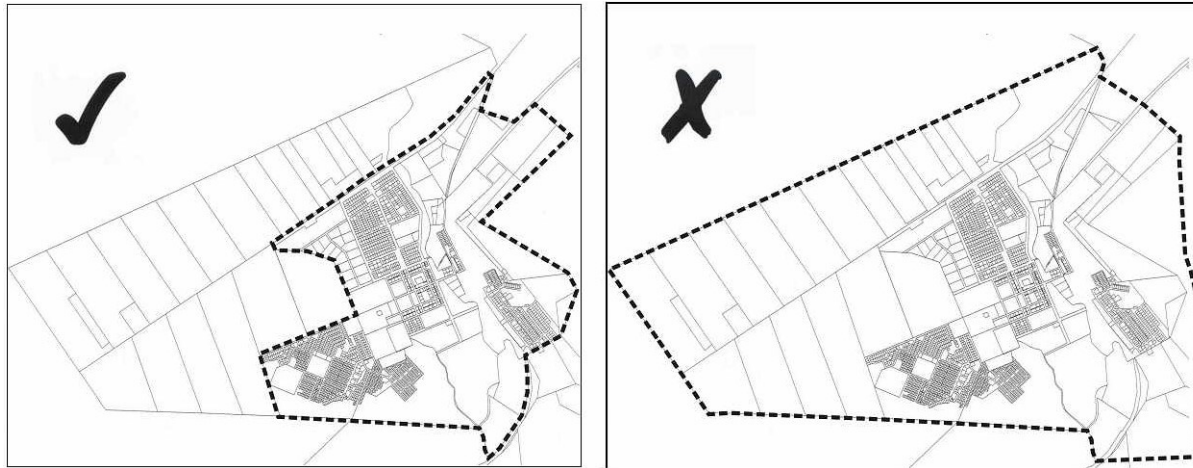


FIGURE 11: THE EXAMPLE OF THE URBAN EDGE (THE WESTERN CAPE PROVINCIAL URBAN EDGE GUIDELINE: DECEMBER 2005, PAGE 9)

4.5 Education

Fezile Dabi Education district in the Free State province has continued to be the leader in the matric high pass rate in the country, Fezile Dabi had a pass rate of 93.5% in 2024 and that made the district to be the 2nd highest performing district in the country. Education is one of the key priorities in the Fezile Dabi District Municipality as a basic right for all South Africans including adult basic education and further education as stipulated in the South Africa's Constitution. One of the main objectives of the NDP vision 2030, Chapter 9 is to improve education, innovation and training. Education is a central element for eradicating poverty and reducing inequality. The Department

of Education in Fezile Dabi has formed private- public partnerships to build and develop the education system in the district. The Fezile Dabi District Education is part of the District Whole School Development (DWSD) program that assists to build and renovate schools.

Investment in people capabilities

It is important to equip communities around FDDM with skills to participate in government programs, to build their capacity to look after their amenities, to do awareness campaigns and to be responsible citizens. Education makes people to understand and respect society cultures, religions other than their own, instilling respect and appreciation of diversity. Community training and education is needed to strengthen the community and help them in decision making.

4.6 Health

The right to health care is enshrined in South Africa`s Constitution that everyone has the right to have access to health care services. This guarantees health care access for all regardless of the socio-economic status. South Africa`s health system is dominated by the public health sector while the private health sector mainly caters for the few affluent members of society.

TABLE 15: HEALTH FACILITIES WITHIN FEZILE DABI DISTRICT (SOURCE DEPARTMENT OF HEALTH DISTRICT PLAN FREE STATE 2024/2025)

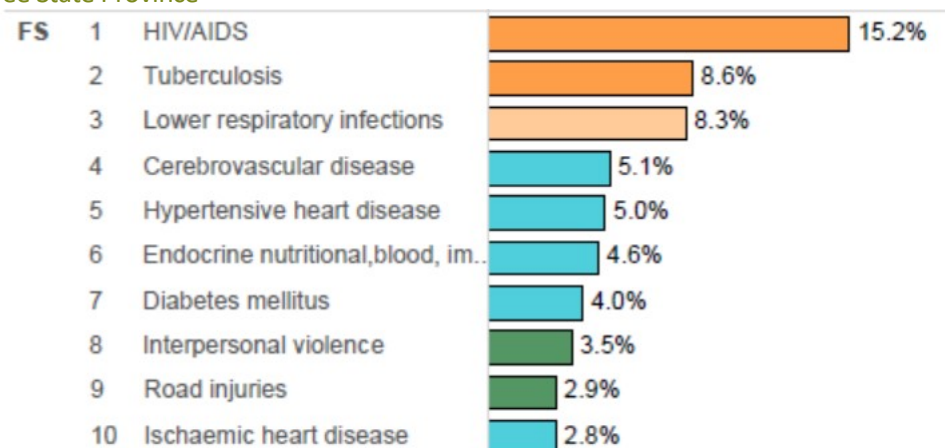
Facilities	Number
Mobile clinics	14
Primary health care clinics	36
Community health care centres	5
Emergency medical service station (EMS)	9
District Hospitals	4
Regional Hospital	1
Forensic pathology units	2
Central laundry	1

Private hospitals /clinic	3
Private caregivers	-

The table above present the available health facilities and their number in the district.

The Fezile Dabi District health ensures that it implements its mandate of sound health care by working in collaboration and also partnering with other government departments, municipalities, private health care practitioners, non-governmental and community-based organisations. The department has challenges of shortages of rural healthcare services in Tweeling, Steynsrus, Oranjeville and Vredefort.

Free State Province



The 10 leading causes of death in the district.

FIGURE 12: 10 LEADING CAUSES OF DEATH IN THE DISTRICT

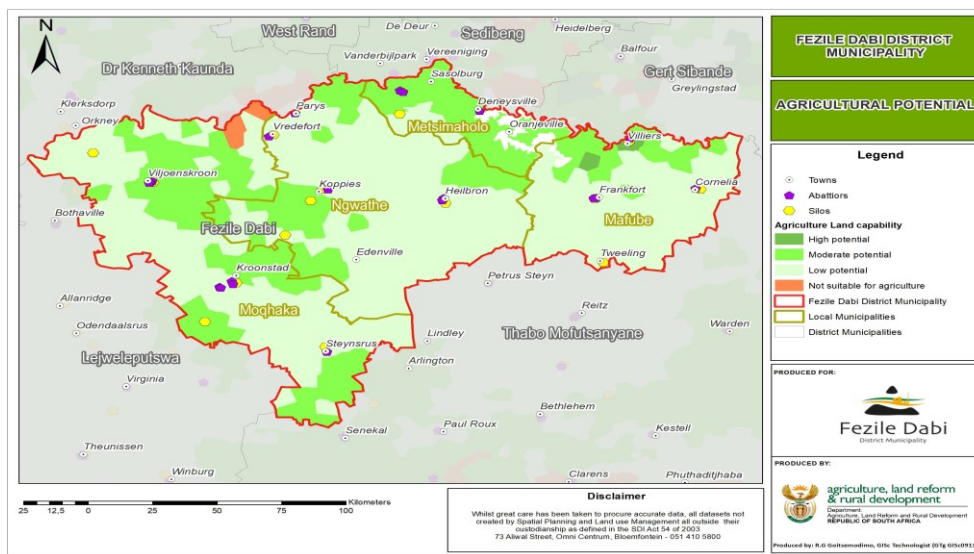
The figure above shows the most common diseases which are also killer diseases in the Fezile Dabi District. The Department of Health need to be supported to put up investigation, control and prevention measures.

4.7 The Environment

Section 24 of the Constitution of the Republic of South Africa, 1996 entitles everyone with the right to a good and healthy environment that is not detrimental to the health of the well beings. The environment has to be safe, healthy and clean for the wellbeing of all the organisms. The environment also has to be protected and preserved at all times in order to promote sustainable development and to be of benefit the future generations.

4.7.1 Environmentally sensitive areas in the Fezile Dabi District Municipality

- The Vredefort Dome National Heritage Site.
- The Bongani Mabaso nature reserve in Sasolburg (Vaalpark) for nature enjoyment of viewing animals, birds and plants.
- Highveld Botanical Gardens (Sasolburg) with different species of birds, animals and indigenous and exotic plants.
- Vaal River activities in Parys, Sasolburg, Deneysville, Oranjeville.
- The Wilge River in Frankfort is used for fishing.
- The Vals and the Renoster rivers.
- Liebenbergsvlei River



MAP 25: THE AGRICULTURAL POTENTIAL IN FEZILE DABI

4.7.2 Environmental problems that affect Fezile Dabi District Municipality

- The Pollution of the Vaal River is a big threat to the health of human beings and aquatic plants and animals.
- There are reports of other rivers such as the Vals, Renoster, the Wilge Rivers, the dams, Spruits and “vleis” getting polluted.
- The river is polluted by agricultural and industrial activities.
- Negligence of bulk sewer networks has a negative effect on the fresh water system.
- Raw sewerage is being deposited or leaks into the river in some area of the Vaal Triangle.
- There is a lot of illegal dumping in the towns and along the roads.

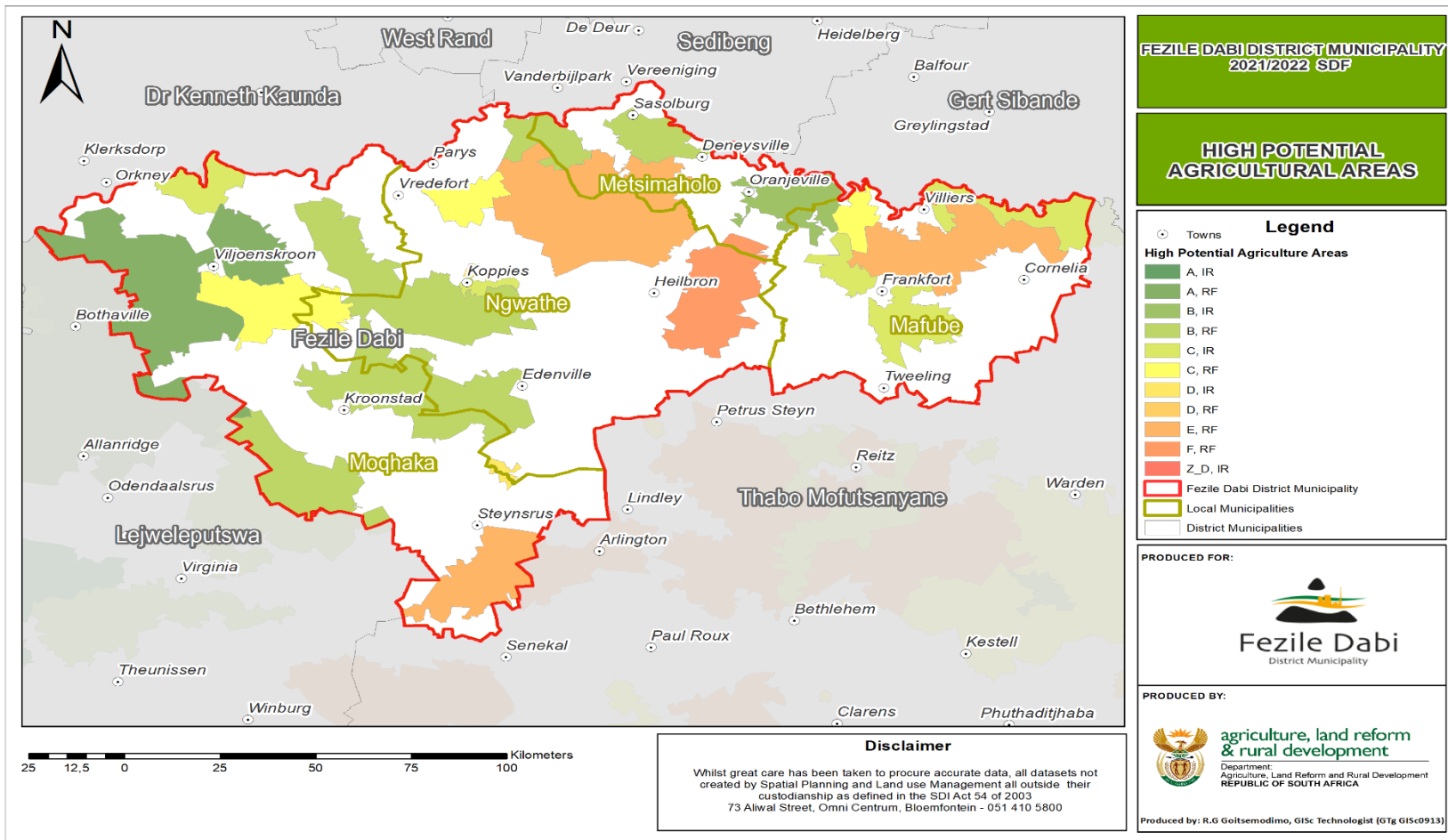
4.8 Agriculture

Agriculture contributes significantly to the economy of South Africa as a whole by providing food and creating employment. The agricultural sector in the Fezile Dabi area makes an important contribution to the food security of the country. Moqhaka Local Municipality

is known as the centre of large agricultural community that plays an important role in the economy of the region. In the District Development Model (DDM), the 3-2-1 Impact Strategy, Mafube LM is identified as an Agricultural Node for the district that will enhance the economic recovery of the district. The DDM has also identified the Agriculture as a priority intervention for the economic recovery plan.

Diversification and expansion of agricultural development is a key pillar for economic recovery, inclusive economic growth, industrialisation strategy, opportunities for business emerging entrepreneurs and rural communities. It is important to form partnership with the private sector and institutions of higher learning to strengthen research and development, innovation, knowledge and skills.

The Sustainable Development 2 (SDG2) reads as following, “end hunger” and FDDM has to align with international practices and food security concerns to promote sustainable agriculture. The agricultural sector must be regulated and managed according to the policies and legislation. The agricultural land must be preserved and managed, urban sprawl has to be curbed.



MAP 26: HIGH POTENTIAL AGRICULTURAL LAND

4.8.1 Proposals for the protection of Agricultural land

The key strategies for the preservation and development of especially high potential agricultural land should be the following;

Regulation -any change of land use from agriculture to other forms of unrelated developments should be limited and regulated.

Protection– of valuable agricultural land

Avoidance– of land uses that have a bad impact

Minimisation – of urban development’s encroachments into the agricultural land

Mitigation– of the ecological footprint

Productivity– high quality productivity of the produce

The farmers experience the following challenges in agriculture;

- Drought, veldfires, animal diseases and stock theft.
- Lack of knowledge about commercial farming.
- Lack of funds to develop themselves.
- Lack of skills to do farming.
- Need for training on the new farming programs.
- Bad public infrastructure such as roads and electricity,

On the other hand there are also successful commercial farmers within the district. These farmers are able to finance themselves. They make a good harvest every year adding value to their products. They can help newcomers and emerging famers by training and mentoring them.

4.8.2 The following programmes are the programmes that the National Department of Agriculture and Forestry has embarked on in the district.

- **Land Care programs** funded by the National Department of Agriculture.
“Land care programme is a community based, and government supported approach to the sustainable management of the utilization of agricultural natural resources”

- **Comprehensive Agricultural Support Program (CASP)** whereby infrastructure development is funded by province. CASP is being described as a programme aimed at expanding the provision of agricultural support services and promoting and facilitating agricultural development by targeting subsistence, smallholding and black commercial farmers from previously disadvantaged background.
- **Ilima/ Letsema** Ilima / Letsema is being described as a program aimed at reducing poverty through increased food production initiatives.
- It also focuses on the eradication of alien invasive plants.

These programs are funded by the Department of Agriculture, Forestry and Fisheries. The beneficiaries of these programs are South Africans, famers, subsistence and household food producers, women and youth, farm workers, etc.

4.9 Hydrology /Water - “Water Is Life”

Access to water is a basic human right as stipulated in the Constitution of South Africa, 1996 section 27(b). Water is a scarce resource in South Africa and the Fezile Dabi District Area is no exception. The Fezile Dabi District Municipality is not a Water Services Authority (WSA) nor providing water and sanitation to the local municipalities. Each municipality in the district has a different provider of water. Climate change is worsening the water problems as there are periods of drought when water levels become very low in the dams and rivers. The scarcity of water is a threat to agriculture, food security, business and domestic use.

The proposed priority responses for water conservation are the following;

- Training and capacity building programmes for water and sanitation officials in municipalities.
- Upgrading and maintenance of all waste water treatment works and water purification plants in the district.
- Provision of JOJO tanks to households for the harvesting of rainwater.
- Replacement of aged infrastructure with modern infrastructure and technology.
- Education programs for the communities

The Fezile Dabi District like the rest of South Africa is experiencing the pollution of the rivers and other water sources. Losing the rivers will have dire consequences on the economy and livelihood.

4.10 Land Reform

Land reform and restitution have been a very thorny and sensitive issue in South Africa for the government to deal with. The legal and policy framework to facilitate land reform and the process of restoring land rights to the dispossessed was adopted by government through the Restitution of Land Rights Act 1994. The department DALRRD in Fezile Dabi has facilitated purchasing and the leasing of a number of farms for the previously excluded and the dispossessed communities. The National Development Plan (NDP) states that land reform will unlock the potential for a dynamic, growing and employment-creating agricultural sector. The NDP bases land reform on the following principles:

1. Enable more rapid transfer of agricultural land to black beneficiaries without distorting land markets or business confidence in the agri-business sector.
2. Ensure sustainable production on transferred land by making sure that human capabilities precede land transfer through incubators, Learnership, mentoring, apprenticeships and accelerated training in agricultural sciences.
3. Establish monitoring institutions to protect land markets from opportunism, corruption and speculation.
4. Bring land-transfer targets in line with fiscal and economic realities to ensure that land is successfully transferred.
5. Offer white commercial farmers and organised industry bodies the opportunity to significantly contribute to the success of black farmers through mentorships, chain integration, preferential procurement and meaningful skills development.

4.11 Tourism in The Fezile Dabi District

The Fezile Dabi District Municipality offers a variety of tourism attractions, products and opportunities. The district has a number of hotels, lodges, Bed and Breakfast facilities, conference facilities, restaurants, fast food outlets, heritage sites, indoor and outdoor adventures, arts and culture and resorts. Because of its close proximity to Gauteng, the Fezile Dabi area is a perfect weekend escape area from hustle and bustle of the big city of Johannesburg and the surrounding areas.

4.11.1 Tourism attractions within municipalities

Moqhaka

Moqhaka has a range of tourism activities which are the following;

- The Vals River is popular with water activities such as angling.
- Revitalisation of Kroonpark Holiday Resort is necessary
- There are many guest houses, bed and breakfast lodges and restaurants for visitors and patrons.
- Outdoor activities like fishing and biking, horse riding, quad biking etc. are available.
- Visits to memorial sites and heritage sites.
- Guest farms and events venues are available.

Metsimaholo

- The towns of Oranjeville and Deneysville will be earmarked for tourism hubs according to the Metsimaholo SDF 2016, p182
- In Deneysville the VaalDam hosts the biggest annual inland regatta, the “Round the Island Race” on the 300 square kilometres Vaal Dam.
- Sasolburg hosts an annual Sasol National Winter Swimming Championships. This is a national event sanctioned by Swimming South Africa.
- Sasolburg has an Olympic size swimming pool named after the former Olympic Champion Penny Heyns.
- The theatre Etienne Rousseau is said to be an excellent example of contemporary architecture built in Sasolburg in 1975.
- There are shopping centres, the Sasolburg Mall, retail and fast-food outlets.
- There is Highveld Botanical Gardens in the Sasolburg town and the Bongani Mabaso Eco Park Nature Reserve in Vaalpark Sasolburg
- Sections of Road 716 north of the VaalDam with scenic views and access to the VaalDam.
- Sections of S156 south of the VaalDam with scenic views and access to the VaalDam.

Ngwathe Local Municipality

- The Vaal River offers opportunities for rafting and resort-based enterprises, wedding venues, conferences and accommodation.
- Vredefort is the home of the world Heritage site, the Vredefort Dome was formed when a meteor crashed on earth.

- The Vredefort Dome World Heritage Site was declared the World Heritage Site by UNESCO in 2005. An estimated 2 billion years ago an asteroid hit the earth, with resultant rock formation mainly between Kroonstad, Vredefort and the adjacent part of North West Province spanning some 10 kilometres in diameter. It is the largest known impact structure on earth.
- Ecotourism at the Ghoya Africa conservancy situated on the R34 about 12km south of Heilbron en route to Edenville and the FRANCOLIN Creek Conservancy situated 30km from Heilbron.
- In Parys, there are two luxurious golf estates, private game ranches and nature reserves.
- The beautiful town of Parys has become a favourite town for both arts and adventure lovers. It has restaurants and a wide variety of arts and crafts shops.

The following activities need to be linked to the tourism “value chain” in Ngwathe.

1. Eco and Agri tourism
2. Low density tourist related activities
3. Conservancies
4. Walking trails
5. Bicycle trails
6. Four-wheel drive trails
7. Bird watching
8. Angling
9. Golfing
10. Continuous development and effective marketing and management of the Koppies Dam Nature Reserve and the Rooipoort Nature Reserve.
11. Effective management and development of the concerned dams in the area that offer popular recreational and tourism opportunities
12. The Anglo Boer war site.

Koppies

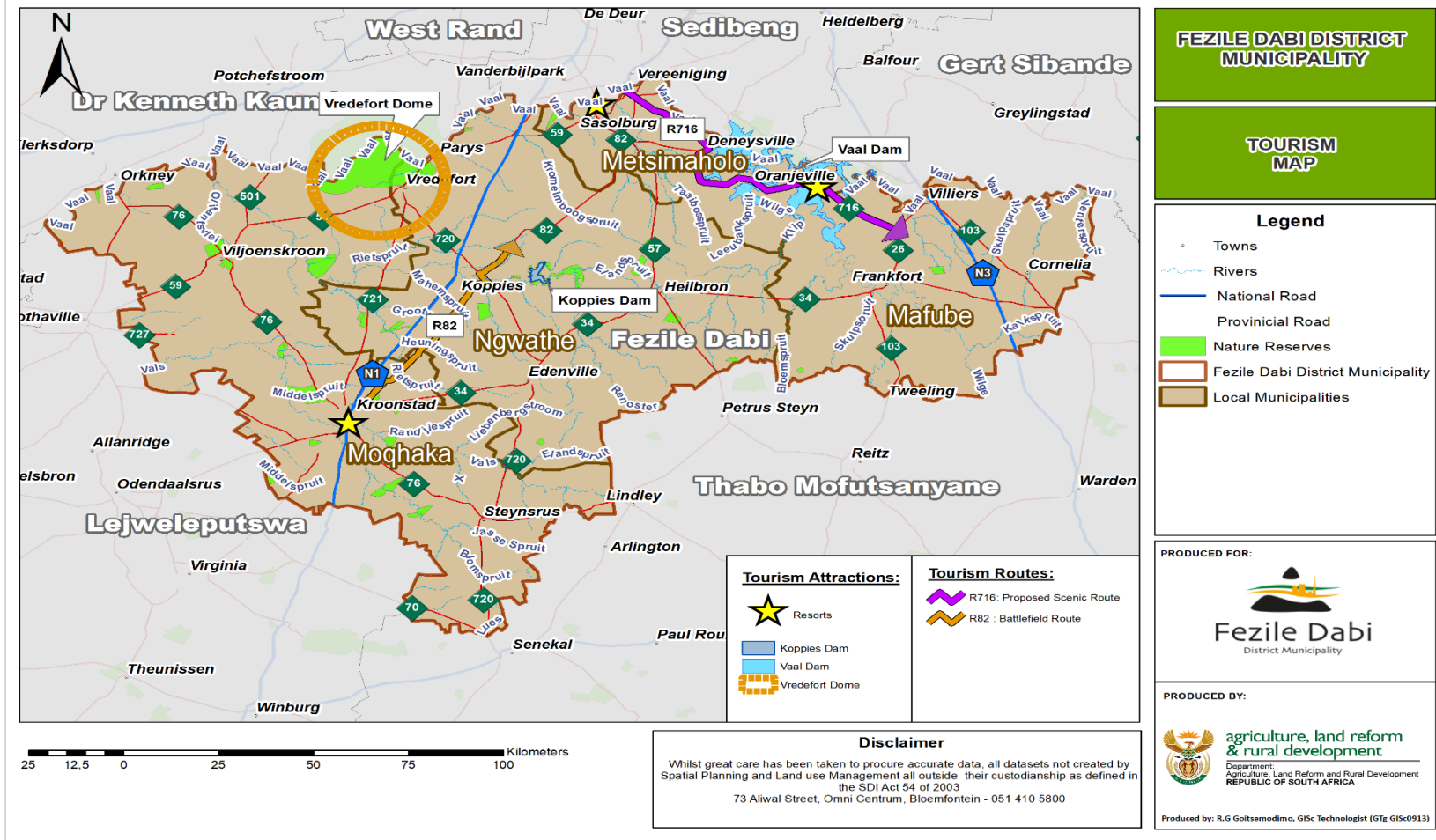
- Koppies is gradually becoming recognised for its tourist attractions.
- The R82 Battlefield Route that consists of several historical battlefields and war cemeteries has drawn much attention in the area.
- There is also the Koppies Dam Nature Reserve tourism attraction.

Scenic Routes

- The Koepel Route (sections of roads S264, 212, 80, and 173)
- The Vaal Eden Route (sections of roads S1052)
- Roads S159

Mafube

- Establishment of a Tourism information centre in Frankfort and Villiers (Mafube LM IDP2020/2021, page 88)
- The Jim Fouché holiday resort on the road R716 must be revived to promote tourism (Mafube LM IDP2020/2021, page 88)
- There is Franklin Conservancy between Heilbron and Frankfort, road R43, the wine route, guesthouses and farm restaurants.
- Scenic roads are R716 (North of the VaalDam and R159 South of the VaalDam), providing good access to the VaalDam. (Mafube SDF 2012/13, page 69).
- Sections of road R34, S160, S240 and S281 should be developed as tourism corridor. (Mafube SDF 2012/13, page 69).
- Support for the Wilge Makiti event (Mafube LM IDP2020/2021, page 88)



MAP 27: TOURISM IN THE FEZILE DABI DISTRICT

4.12 Mining

In 2016 mining was said to have contributed about 21% to the GDP of the country. It has fallen from being ranked 7th sector to the 10th in 2016. Even though mining has lost its leading position, it is still an important employer in the country.

4.12.1 Regional Mining Activities

- Gravel obtained from several open cast pits for construction or road building processes
- Bentonite deposits at Koppies
- Granite formations at Parys
- Sand winning along the Vaal River
- Alluvial diamonds are exploited in isolated locations along the Vaal River
- Gold is mined at the Vaal Reefs Mine and part of the Witwatersrand gold reef in the Viljoenskroon area.

The Sasolburg and Vereeniging coalfields are said to be ranking 3rd in South Africa. The Bituminous coal is mined around the Sasolburg and Vereeniging towns.

The mining products or commodities in Fezile Dabi are:

- Coal
- Bentonite
- Building sand
- Diamonds
- Gabbro/Dolerite/ Norite
- Gravel
- Iron
- Limestone
- Granite formations from Parys

4.13 THE NATIONAL SPATIAL DEVELOPMENT FRAMEWORK (NSDF) – March 2022

4.13.1 The National Spatial Action Areas (NSAAs)

“Following on the directive of the NDP, the NSDF identifies the areas of significant national risk and opportunities /potential.” NSDF 2022.

On following the above directive the NSDF identifies 5 types of areas called **National Spatial Action Areas (NSAAs)**. The NSAAs are said to be about the following;

1. The areas that are most critical and can be catalysts for bringing about national spatial transformation and economic transition and/or
2. The areas that are most stressed in terms of current, rising and anticipated national risks.

This makes the NSAAs to be critical areas that need intervention, focused development and transformation efforts. They have a potential for economic growth, social upliftment or addressing significant challenges like environmental risks.

Under the NSAAs, FDDM has two local municipalities which are Mafube and Metsimaholo. The towns affected in FDDM are Sasolburg, Deneyville Oranjeville, Frankfort and Villiers. FDDM is within the three NSAAs known as **Central Innovation Belt (CIB)**, **National Resource Risk Area (NRRA)** and the **National Urban Spatial Transformation and Economic Transition Regions (NUSTERS)**.

The CIB is an area surrounding the core of the Gauteng Urban region, an area that is spatially positioned to be economically strong, a diverse production area. The NSDF recognise the CIB as a key area for development. The NRRA covers the Southern portion of the region, which is the Vaal River catchment area. The Vaal River catchment area is overrun by challenges of water pollution for a long time. The Vaal River needs a high-level attention because of severe challenges of contamination. The NUSTERS are three regions which are Gauteng, Greater Cape Town and Kwa Zulu Natal. Metsimaholo LM is under the Gauteng urban conurbation. These areas are faced by both challenges and opportunities. The challenges they face are service provision, housing, transport, infrastructure maintenance and others. These areas are areas of hope and opportunities because they carry the country's economic activities and many non-mining related economic activities of the highest value, they are regions where import and export happen.

Action and Interventions on the NSAAs as stipulated by the NSDF

- Extend and improve the transportation networks, ensure regular maintenance and upgrading of existing infrastructure, notably roads, increase investment in high-speed ICT infrastructure
- Introduce and upgrade-built environment, transport, basic service and communication infrastructure with focus on 1. Housing, 2. Basic service delivery, 3. Public transport, 4. Rural –urban and urban –rural connections
- Introduce innovative settlement planning, rural design, urban land reform, urns and rural edges, curtail sprawl.
- Ensure protection and management of ecological infrastructure, natural resources and protected areas.
- Introduce and strengthen effective regional collaboration, partnerships and cooperative governance models

- Prioritise human capital and people centred enterprise development
- Capitalise on the vast opportunities that the universities and research entities in NSAAs offer for regional development, transformation and transition.

TABLE 16: AN OVERVIEW OF THE ACTIONS REQUIRED IN THE NATIONAL SPATIAL ACTION AREAS IN ACCORDANCE WITH FOUR OF THE NSDF SUB-FRAMES

National Spatial Action Areas	National System of Nodes and Corridors	National Economy Regions	Resource	National Movement and Connectivity Infrastructure System	National Ecological Infrastructure Network
Central Innovation Belt	• Diversifying the economy, rebuilding, supporting and upscaling the secondary Sector and strengthening the tertiary sector. • Creating transformed, well-functioning settlements	• Supporting agro-processing, viable mineral and metals beneficiation and alternative energy production		• Strengthening existing connections to, and links with the core areas of the Gauteng Urban Region.	• Managing and mediating the impacts of (1) dense human settlement and (2) intense economic activity on critical national water resources, e.g. the pollution mitigation actions in the case of the Vaal River
National Resource Risk Areas	• Ensuring the sustainable use of resources, and preventing pollution and resource depletion.	• Managing competing and incompatible land uses, e.g. mining, agriculture and Eco-tourism.		• Strengthening infrastructure networks to facilitate regional, national and cross-border flows.	• Prioritising natural resource management by, amongst others, introducing far more stringent protection and wise management of the country's scarce natural resources, notably so its high-value agricultural land.
National Urban Spatial Transformation and Economic Transition Regions	• Strengthening (1) the network and (2) nodes on the network to become national centres of economic growth, human resource development, and innovation.	• Managing national and cross-border interdependencies for national and wider SADC benefit.		• Refurbishing and developing infrastructure to enable and support (1) economic diversification and expansion, and (2) more youthful and larger populations. • Strengthening regional, national and cross border linkages.	• Managing national and regional cross-border Interdependencies for the benefit of all concerned. • Managing the impact of human settlement and economic activities on SWSAs.

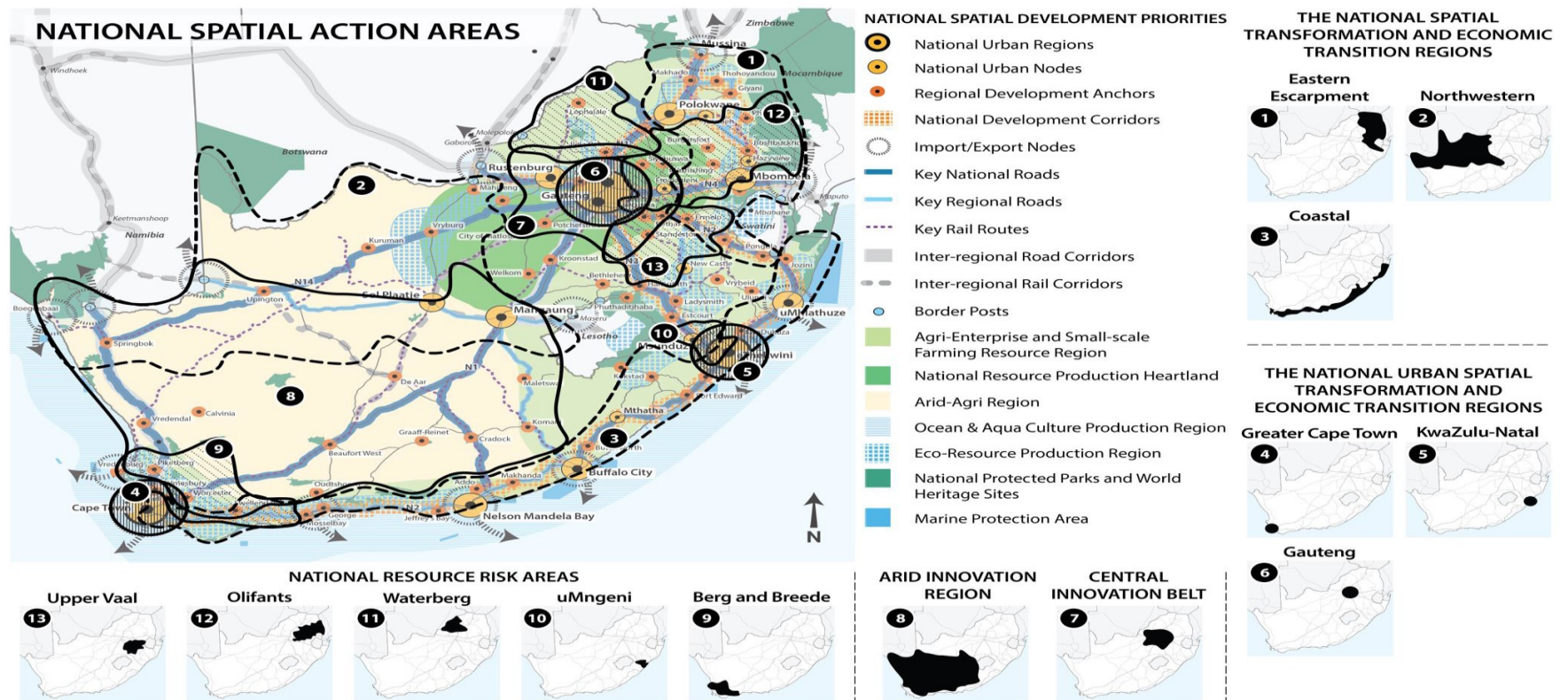


FIGURE 13: NATIONAL SPATIAL ACTION AREAS (SOURCE – NSDF 2050)

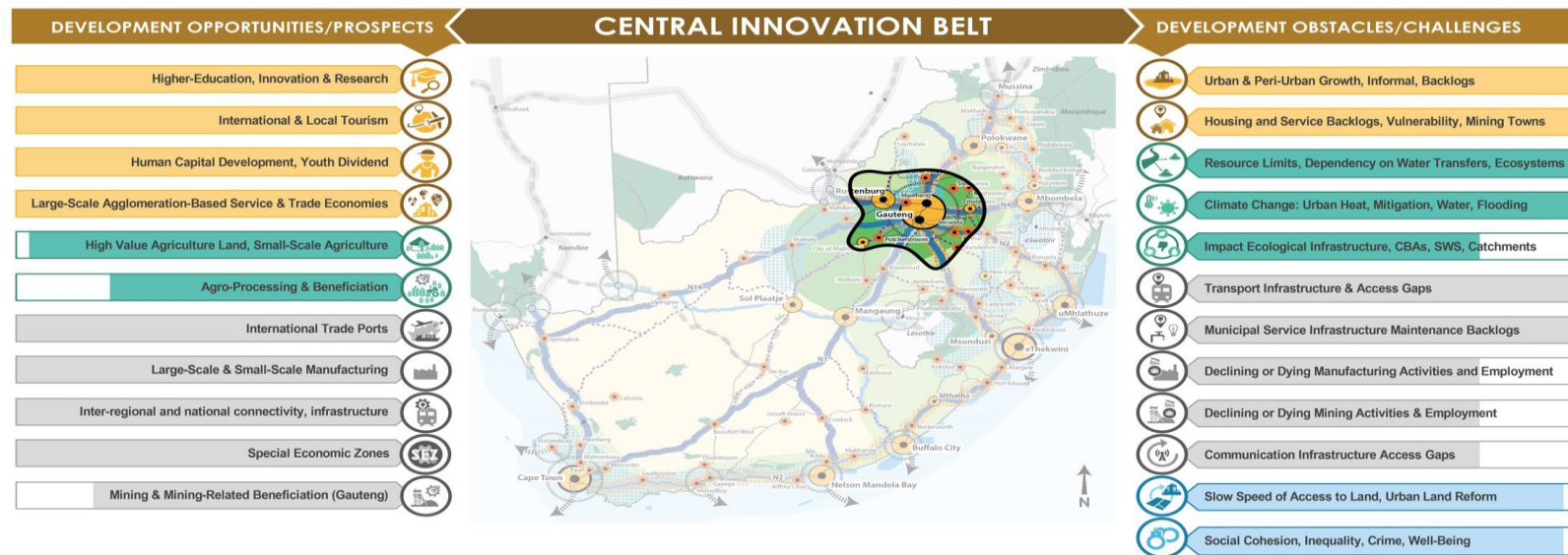


FIGURE 14: CENTRAL INNOVATION BELT OVERVIEW



FIGURE 15: CENTRAL INNOVATION BELT TOWNS

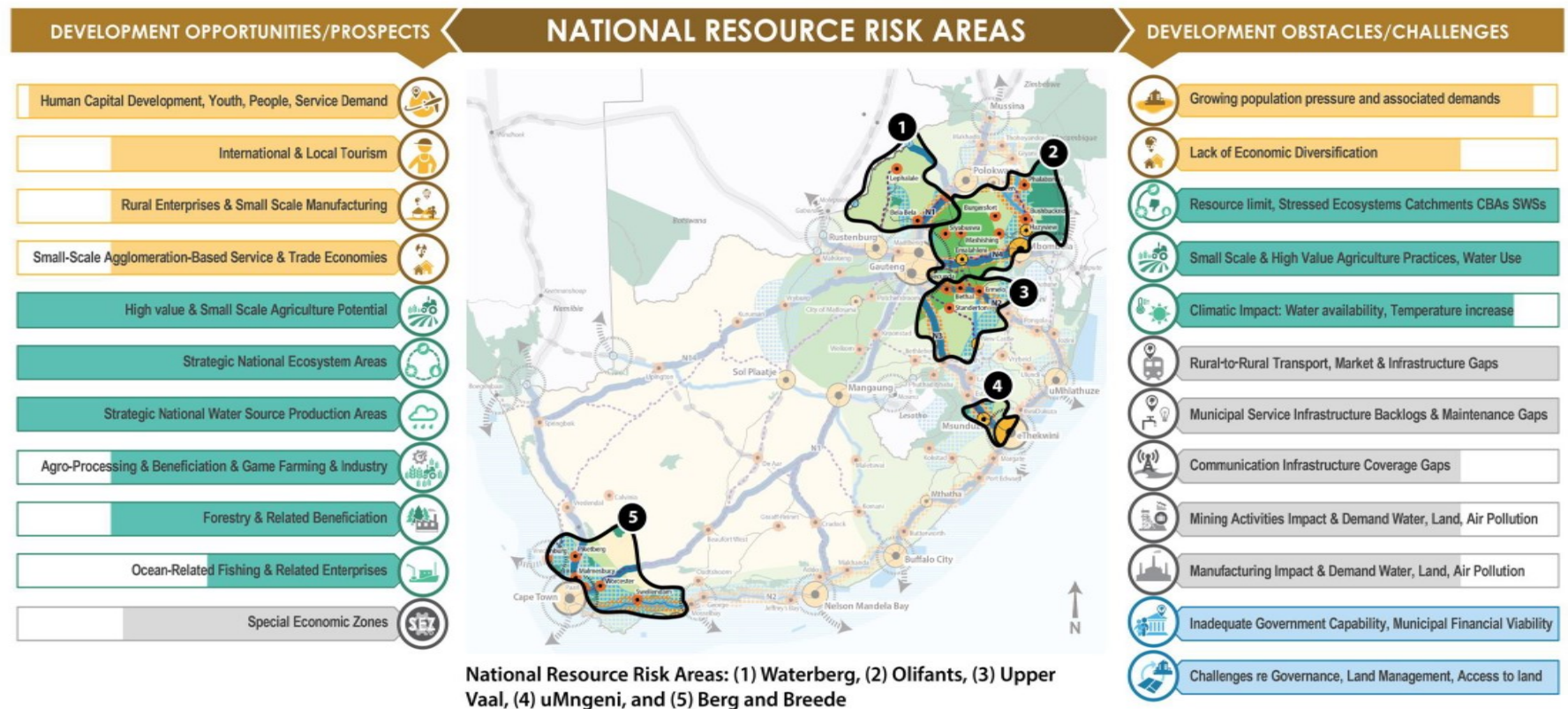


FIGURE 16: NATIONAL RESOURCE RISK AREA

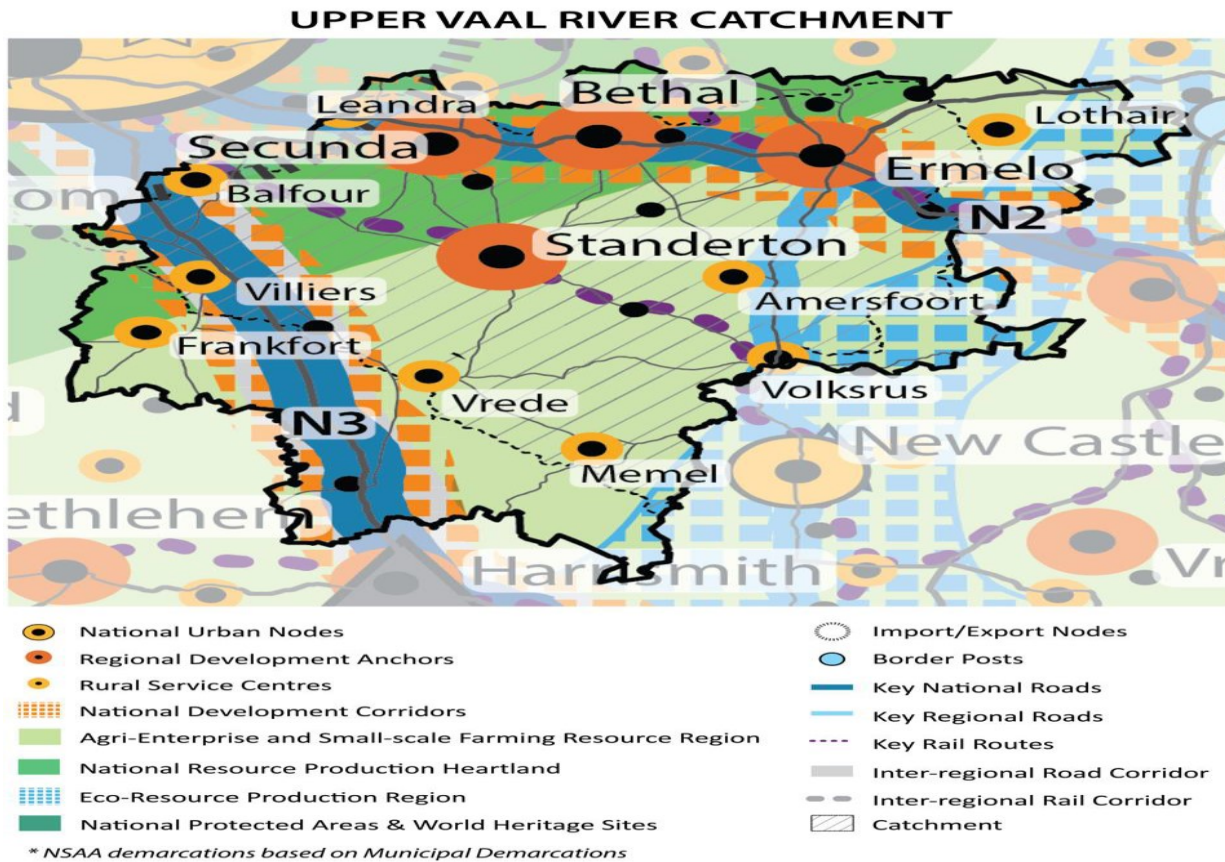


FIGURE 17: UPPER VAAL RIVER CATCHMENT

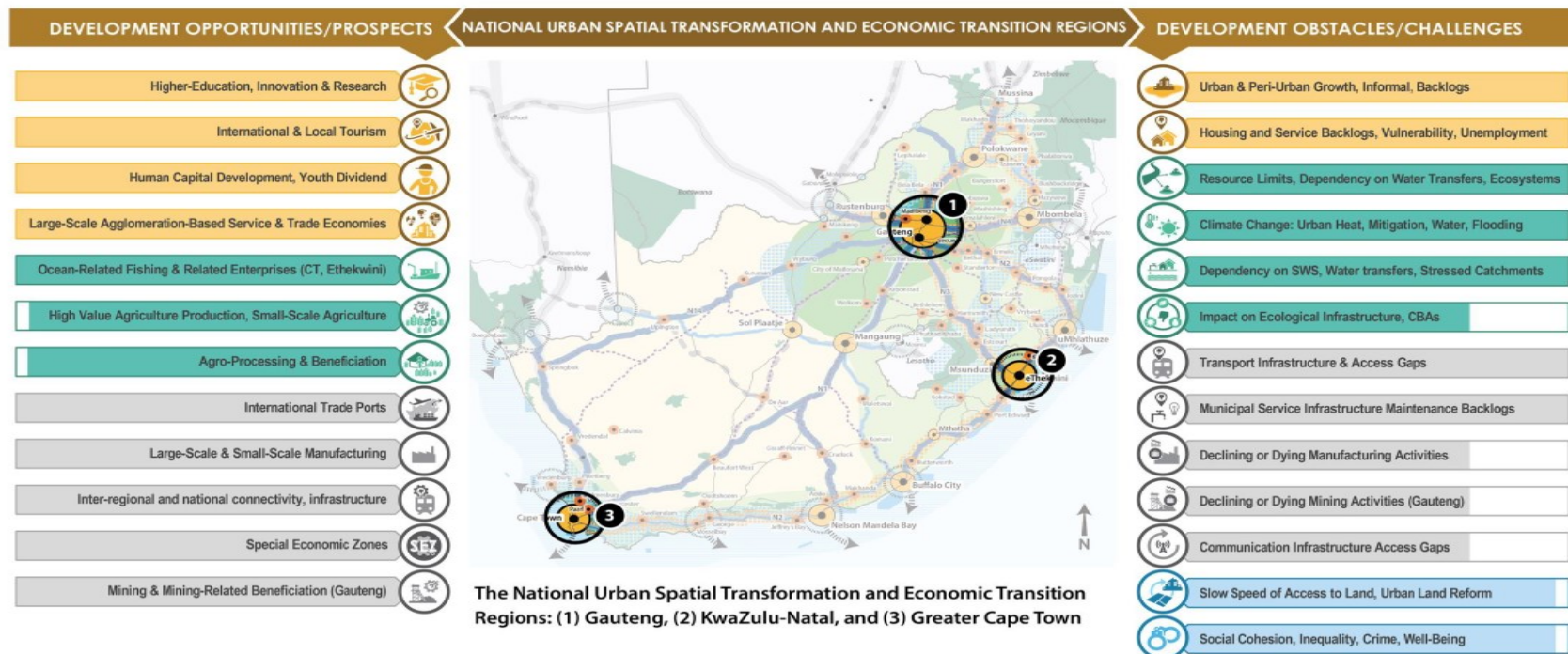


FIGURE 18: NATIONAL URBAN SPATIAL TRANSFORMATION AND ECONOMIC TRANSITION REGIONS



FIGURE 19: GAUTENG NATIONAL URBAN SPATIAL TRANSFORMATION AND ECONOMIC TRANSITION REGION

The map above depicts the National Urban Spatial Transformation and Economic Transition Region (NUSTETR).

Gauteng as part of the NUSTETR of the three which are Greater Cape Town and Kwa-Zulu Natal forms part of the NUSTETR. These urban conurbations.

4.14 FREE STATE; PROVINCIAL SPATIAL DEVELOPMENT FRAMEWORK (FSPSDF) -2025

The Strategic Intent

The strategic intent and purpose of the PSDF is to give attention or deal with the challenges on growth and development in the Free State Province and give solutions and capitalize on the opportunities and the potentials. The Levers and Drivers are the vehicle used to realise the strategic intent and build sustainable development. The strategic intent is strongly influenced by the FSPSDF Spatial Vision which reads as the follows;

“A spatially integrated Free State, providing the foundation for inclusive economic growth, through environmentally conscious, sustainable, innovative development bringing forth a prosperous developmental state for its citizens by 2050”

Development Levers and Drivers

Levers are strategic objectives used to strongly to influence and change the spatial distribution of development, they are used to unlock the full potential of the developmental state, and they guide development. Proposed action areas on this Lever are (1) Road safety and freight compliance (2) Border posts upgrades, Support and upgrade existing facilities, (3) New Developments in Kroonstad whereby Kroonstad

Drivers are spatial outcomes that enable sustainable development and initiatives. Drivers provide intervention.

Lever 1: Enabling infrastructure as the foundation of interconnectivity and access

Lever1 is about infrastructure and connectivity, the lever is about interconnectedness of the spatial environment that supports the broader growth and development vision for the province.

Driver 1: Improved connectivity and movement networks

Driver 2: Improving the access and quality of basic service.

Lever 2: Effective and expedited spatial governance

This Lever is focused on the improving of governance processes to ensure that spatial planning decisions are made efficiently and align with broader development goals. This Lever creates a more efficient look at the general capacity within municipalities when there are complex applications. The suggestion for dealing with complex applications is the formation of Advisory Planning Committee formed in partnership. Proposed Action Areas for the Lever are (1) Streamline Processes (2) Technology integration (3) Regular reviews of SDFs (1) Capacity building etc.

Driver 1: Realization of spatial justice through good administration

Driver 2: Establishing expedited land use management processes

Lever 3: Establishing and enhancing urban and rural connections

In urban and rural development the living spaces should be improved, job opportunities be created. An assessment on both existing and required services should be done to give an idea about where and what is required. Action areas are (1) Transport and Infrastructure Services, (2) Urban edges (3) Rural social services, (4) Education and Health Services etc.

Driver1: Improving the spaces people live in.

Driver 2: Expanding on competitive advantages as a means of job creation

Lever 4: Sustainable resource utilisation

The lever is about sustainable resource management, which is maintain a balance between ecological systems and development. Key resources like water ways are to be protected. Climate resilience and must be promoted and environmental degradation be prohibited. Proposed Action Areas are to encourage and promote water wise agricultural practices within water production zones to optimise water use efficiency. To improve management of groundwater resources to ensure sustainable use and prevent depletion.

Driver 1: Protection of key resources

Lever 5: Emerging market support

The lever is about supporting emerging markets particularly in renewable energy, natural gas and innovative industries. Green Hydrogen production has been earmarked for Sasolburg. A lot of renewable energy development application have been submitted to the Local Municipalities. A support has to be given to the local municipalities that are transiting from fossil fuels to green energy. ZZ

Driver1: Renewable energy

Promote small scale solar generation

Driver 2: Natural gas extraction

Promote value chain in developments of gas extraction

Driver 3: Green hydrogen generation

Ring fence water availability in the Vaal River system

Driver 4: Electronic vehicle support infrastructure

Support establishment of EV charging system

4.15 VAAL RIVER SPATIAL DEVELOPMENT FRAMEWORK (VRRSDF)

The Vaal River Region is an inter- provincial area covering certain parts of the four provinces which are Gauteng, Free State, North West and Mpumalanga Province. The municipalities covered in the area are Midvaal, Emfuleni and a portion of Lesedi Municipality in the Sedibeng District, Gauteng, Metsimaholo, Moqhaka, Ngwathe, and Mafube Local Municipality in the Fezile Dabi District, Free State, JB. Marks Local Municipality in the Dr Kenneth Kaunda District in the North West and Dipaleseng Local Municipality in the Gert Sibande District, Mpumalanga Province.

Opportunities

The Vaal River is a national priority

Significant agricultural diversity

Good range of economic drivers

Environmental conservation and tourism

Good connectivity

Governmental coordination

Challenges

Demise of the River

Poor Infrastructure

Fragmented urban form

Poor governance and accountability

Declining economic sectors and tourism

The Vaal River Region Spatial Development Framework study area is divided into four subregions. Each Subregion has its own character, different land use and spatial form. The subregions are as follows;

1. Vaal Urban Core Subregion:

- Vaal Urban Core Subregion is located in centrally and it comprises of the Southern part of Gauteng and part of the Free State provinces.
- The towns are Meyerton, Vereeniging and Sebokeng, Evaton and Vanderbijlpark, **Sasolburg and Zamdela**. The area is characterised by iron industries in Meyerton, Vereeniging and Vanderbijlpark and petrochemical industries in **Sasolburg**.
- The R59 road forms a manufacturing corridor in Meyerton linking with Alberton.
- There area has the highest population density, highest concentration and distribution of informal settlements, highest proportion of land used for economic activities and many others.
- The area is being referred to as the **heartland** of the study area.
- The Subregion is well positioned for accessibility, proximity and integration.

- It has moderate annual rainfall which supports farming, the land cover is agricultural and natural classified as biome.

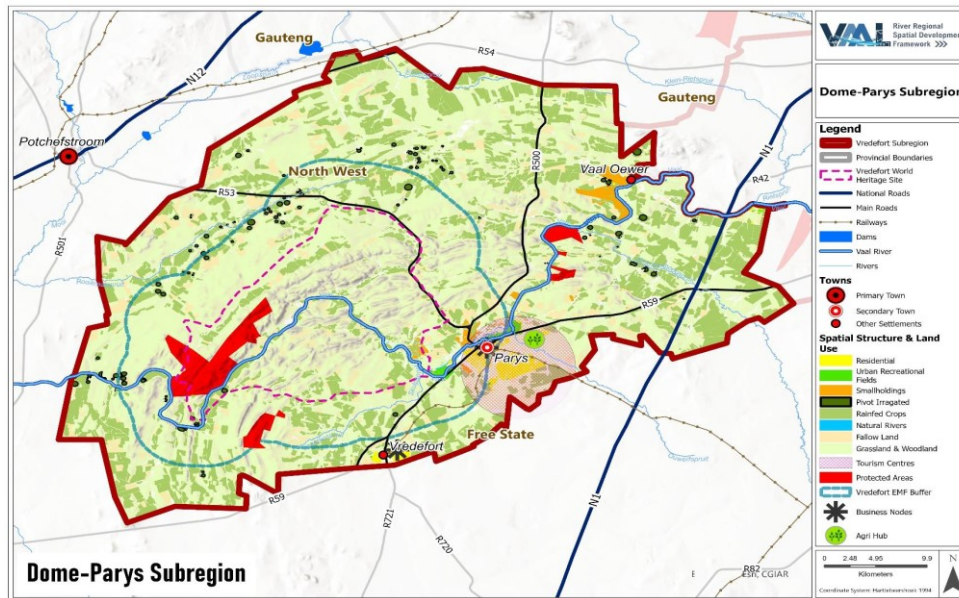


FIGURE 21: THE DOME-PARYS SUBREGION

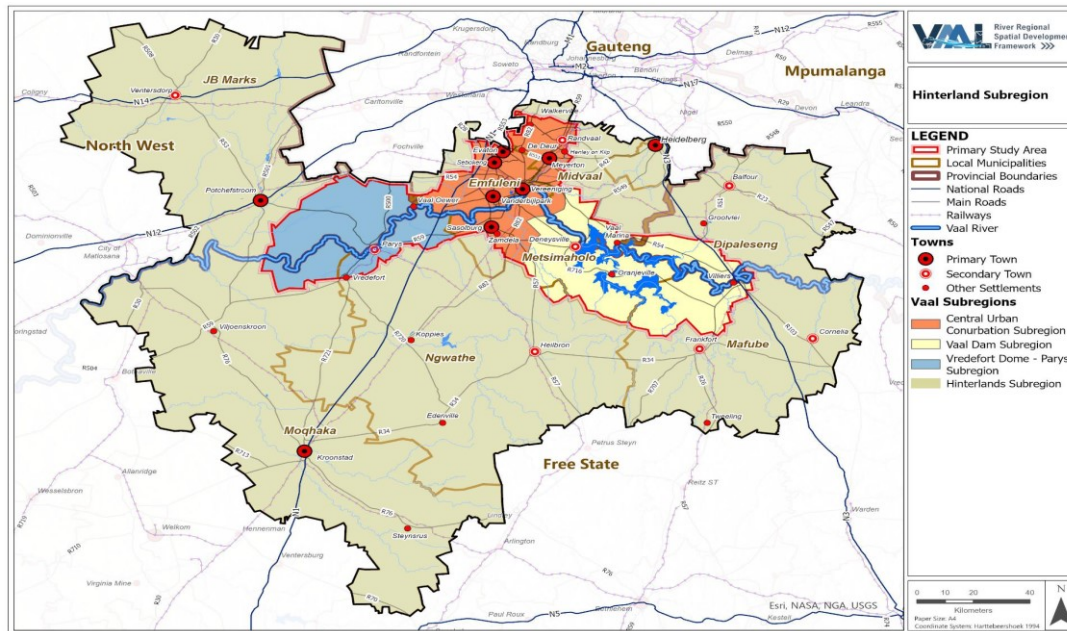


FIGURE 22: THE HINTERLAND SUBREGION

- The area has less relationship with the Vaal River
- The area stretches from **Kroonstad** to Ventersdorp in the North West, Heidelberg in the East to Potchefstroom in the West.
- The area is important for agriculture, it needs to be protected.
- The key components of the area are agriculture and tourism.

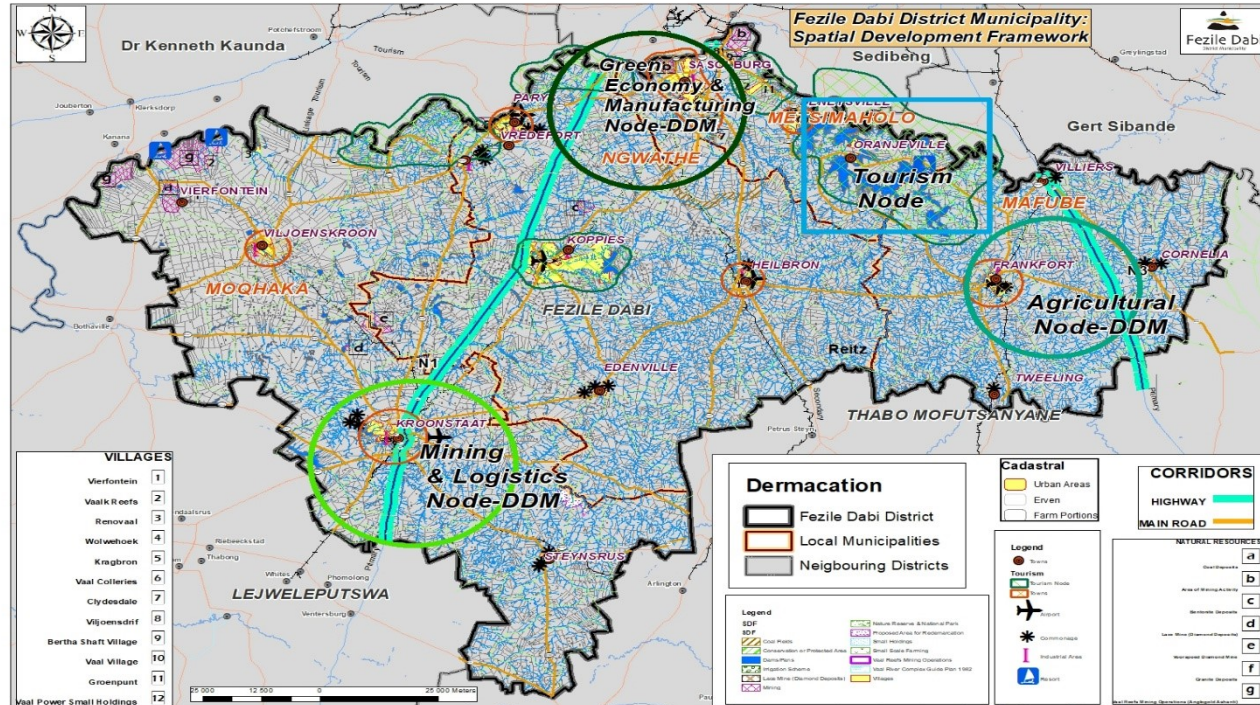
The Vaal Dam Subregion

- The Subregion is known as the Vaal Dam
- It is surrounded by natural areas and high potential agricultural land
- Tourism is also a key economic sector in this area because of the Vaal dam
- There are several towns which are Vaal Marina, **Deneysville**, **Oranjeville**, and **Villiers**, providing country living and vacation homes
- Many people commute from these towns to Vereeniging, Vanderbijlpark, Meyerton and **Sasolburg** for work daily.

4.15.1 THE VRRSDF SPATIAL DEVELOPMENT OBJECTIVES

- 1. Infrastructure:** To repair, maintain and expand all infrastructure
- 2. The River:** To restore and protect the Vaal River and its tributaries
- 3. Economic Development:** To drive innovative economic
- 4. Social Development:** To achieve overall social betterment
- 5. Institutional Management:** To achieve institutional accountability and pro-development administration

5.1 The Fezile Dabi District Municipality Spatial Development Framework



MAP 28: THE SPATIAL DEVELOPMENT FRAMEWORK

5.1 The Fezile Dabi District Municipality Spatial Development Framework

In preparation of the Fezile Dabi Spatial Development Frameworks (SDF) the following were identified;

- The Long-Term Spatial Vision of the district which talks to the content of the SDF.
- The objectives for the municipality's Spatial Development Framework.
- The Principles of SPLUMA.
- The existing SDFs documents of the local municipalities.
- Identification of growth points.
- Identification of urban nodes and their functionality.
- Transport and activity corridors.
- Tourism and tourism infrastructure development.
- Environmental management.
- Compliance with the Legislation.
- Governance

5.2 STRUCTURING ELEMENTS

The Fezile Dabi Spatial Development Framework is structured to address the following form of elements;

- Hierarchy of Urban Nodes linked to functionality
- Identification of development nodes in urban and rural environment
- Transportation corridors linked to activity (activity corridors) and functionality.
- Agricultural Development
- Tourism Development
- Environmental Management
- Infrastructure Development
- The general wellbeing of communities which includes health, safety, education, economic activities, recreation, access to services, etc.

5.2.1 Ranking of Urban Nodes linked to functionality

In the context of the Fezile Dabi District Municipality Spatial Development Framework, nodes can be defined to facilitate increased growth of existing urban areas of economic development and to ensure that economic development potential in areas of high poverty levels and inequality are recognised and improved. The 17 settlements and 15 towns of Fezile Dabi District Municipality are characterized by their extent, function and sphere of influence.

5.3 Economic Nodes

Fezile Dabi District Municipality has a number of urbanized areas, which have different functions. All towns' Central Business Districts (CBD) has some form of economic activity, as they provide different services to their inhabitants. There are banks, retail activities, institutional services which are schools, clinics and hospitals, police stations and industrial areas. These nodes also offer job and residential opportunities as areas of high intensity mixed use development. Economic nodes should be supported with infrastructure investment to promote their growth. Their strengths and opportunities should be strengthened, and their weaknesses and threats should be eradicated and eliminated. Implementation mechanisms of the SDF should focus in such areas. The urban nodes are accessible both by road and rail and some by private flights and pedestrian walkways. Urban nodes should form accessible and connected linkages with rural areas.

5.3.1 Specialised Economic Urban Nodes

Specialized economic nodes are characterized by manufacturing /processing activities and high value productions.

5.3.2 Mining Nodes

Mining nodes are towns geographically identified areas designated as suitable for mining activities and mining operations. They provide accommodation to miners, retail, social and other complementary services. When a mining activity is taking place in a specific town a Social Labour Plan is required to address the social and economic impacts on surrounding communities including employment opportunities, infrastructure development and community engagement.

5.3.3 Agricultural Nodes

These nodes provide agricultural services to farmers and rural areas inhabitants as well as urban dwellers. In the agricultural nodes there is development and promotion of sustainable agriculture. The agricultural nodes provide housing, retail and social services to the surrounding settlements. They help farmers to market their produce and diversify their income.

5.3.4 Tourism Node

Tourism Nodes are located within areas of natural beauty, heritage significance and recreational advantage. These areas attract both local and international tourists. They provide accommodation, leisure activities and many other activities. Fezile Dabi is popular for offering overnight accommodation, weekend tourism activities and adventure tourism.

5.4 Classification of Nodes linked to functionality

TABLE 17: CLASSIFICATION OF NODES WITHIN FEZILE DABI DISTRICT MUNICIPALITY

Urban Node	Primary Function	Attributes
Sasolburg/Zamdela	Economic Node Industrial Node Tourism Node Institutions/ Services Administration Residential node (estates, town houses, sectional complexes and freehold residence)	-Industrial and commercial component -Manufacturing of high value goods (fuel, plastics, rubber etc.) -Petro-chemical plant -Labour-intensive mass-produced goods --Bio- fuel Node --Accessibility (Roads) -Retail services and Private Services -Hospitality services -Leisure centres -Administration facilities -Education facilities -Health Facilities -Estate agency -Engineering services
Kroonstad/ Maokeng	Economic Node Agricultural Node Industrial Node	-Manufacturing -Commercial and industrial components -Retail and Private services

	Mining Node Institutions /Services Administration Node Tourism Residential Node	-Hospitality services -Leisure centres -Administration facilities -Education facilities -Health facilities -Estate agency -Engineering services -Agricultural goods -Mining Activity -Defence force -Correctional Service -proposal for the extension of Ultra City Garage (motor show room) -Reitz Street is identified as corridor for the town linked to the N1 Freeway. -Mixed land occurs along Reitz Street -Another development street identified Noordweg up to Checkers Centre business node. -an “Industrial Park” adjacent the N1 North of the existing urban area is proposed
Viljoenskroon/Rammolotsi	Agricultural Node Mining Node Residential Node	Agricultural goods Manufacturing Retail activity
Heilbron/Phiritona	Agriculture Node Commercial Node Residential Node	Manufacturing Retail Agriculture

• Frankfort/Namahadi	Agricultural Node Residential Node	Bio fuels Agriculture services
• Parys/Tumahole	Tourism Node Business Node Agricultural Node Government Institutions Golf Estates Residential Node	Retail services Tourism lifestyle estate Agriculture Leisure facilities Exhibitions (antique vintage shops) Hospitality
• Koppies/Kwakwatsi	Agricultural Node Tourism Node Residential Node	Tourism Agriculturally Based Products
• Villiers/Qalabotjha	Agricultural Node Tourism Node	Agriculture Tourism (Resting station N3)
• Vredefort/ Mokwallo	Tourism Node Agricultural Node Residential Node	Vredefort Dome location Tourism activities
• Deneysville/Refengkgotso • Oranjeville/Metsimaholo	Tourism Node Retail Node Residential Node	Water sport tourism Retail
• Tweeling/Mafahlaneng	Agricultural Node Residential Node	Providing support services to the farming communities
• Cornelia/Ntwsanatsatsi	Agricultural Node Residential Node	Providing support services to the farming communities
• Steynsrus/ Matlwatlwang	Agricultural Node Residential Node	Providing support services to the farming communities

5.5 Sasolburg, Vanderbijlpark and Vereeniging Urban Concentrations

The movement of goods and people between urban concentrations does not recognise boundaries. The Vaal River provides the rural boundary between Gauteng and the Free State Province. There are large commercial, industrial, social and recreational facilities which are provided by the respective urban concentrations. The three urban concentrations are linked together by the Vaal River Regional SDF and the Vaal River City project.

5.6 Transportation Corridors Linked to Functionality

Accessibility and connectivity

The location and distance or proximity of FDDM makes it accessible from other locations and from various points. The accessibility may not be of high level in terms of the existing public transport network, but it does exist. Accessibility in FDDM needs to be improved in many ways.

FDDM forms part of the existing national and regional development corridors of the R59, N1 and the N3. By virtue of FDDM being linked to them FDDM is an integral part thereof irrespective of the status quo, (page 120: Small town regeneration strategy). It is therefore important for the municipalities to prioritise investment in efficient and sustainable infrastructure to empower these linkages.

The Fezile Dabi District Municipality is characterized by a number of National and Provincial roads to make it accessible from all the major urban centres in South Africa. The development corridors will create the necessary linkages within and between the proposed urban centres and development zones. The development corridors connect the nodes.

The connectivity of FDDM is strengthened by the fact that FDDM is located along the national routes which are the N1 and N3. FDDM is located along the regional routes like the R59, R82, and R34 etc.

5.7 Different Levels of Connectivity

- 1. Macro – National & Regional connectivity through the national highways, railways and primary roads.**
- 2. Meso – Inter – City, town to city, rural to urban, through the feeder roads, link roads and highways**
- 3. Micro – Intra – Village, Inter –Village, Rural to feeder roads, through the tertiary roads, rural roads, footpaths, small bridges**

5.7.1 Primary Corridors (National Roads)

The two major development corridors within the Fezile Dabi District Municipality are the N3 and the N1 National Roads that connects the major nodes of the country. The development proposals along the respective Freeways are as follows;

N3 Freeway

- The N3 is a freight, transport and business corridor connecting Johannesburg and Durban traversing the town of Villiers.
- The only urban centre located along the N3, is Villiers / Qalabotjha, which needs to be promoted for overnight tourism, transport related activities (warehousing) and the promotion of agricultural in the area.
- Opportunities of development along the N3 in Villiers are banking services, quick transport repairs, vehicle charging stations, gas stations with convince stores, car wash, tyre repairs, truck stop, police service and health services.
- It goes through to the proposed Harrismith Logistics Hub from South Africa's largest industrial complex which is Johannesburg to the largest general cargo and container port of Durban.
- Through this corridor that traverses the Fezile Dabi District Municipality, import and export activities are taking place.
- Tourists are also using this road to travel to the coastal towns of Kwa Zulu Natal for going on holidays and business.

N1 Freeway

- The N1 Freeway is located along the Western section of the Fezile Dabi District Municipality, and it creates a link between Johannesburg and Cape Town, passing through the towns of Kroonstad to Bloemfontein.
- The Kroonstad urban centre should be developed for transport related activities and overnight tourism activities.
- This freeway provides an important transport for freight and tourism link between the two major urban concentrations of Cape Town and Johannesburg.
- The total stretch of the N1 through Fezile Dabi District Municipality is not developed and utilised fully.
- The N1 Freeway provides important linkages to (R34, R59, and R76).
- All the above-mentioned roads connected to the N1 also lead to areas of high economic activities in the district.
- The two nodes of Sasolburg and Parys are connected to the N1 through the busy R59 provincial road.
- The R59 meets the N1 at the Kroonvaal Toll Gate interchange.
- The R34 meets the N1 in Kroonstad from Welkom before making way to Heilbron.

- The R76 interchanges with R34 and N1 highway in Kroonstad to Steynsrus.

Proposals of the Moqhaka Local SDF on the N1 corridor

There are two development suggestions from the Moqhaka SDF with regard to the N1 freeway are the following:

1. The extension of the Shell Ultra City by having a motor show room business.
2. Two prominent refuelling stations are proposed adjacent to the N1, respectively to the North and South of the urban area (SDF, 2019/2020 P110)
3. The possibility of establishing an industrial park adjacent to the N1 north of the existing urban area be investigated.

5.7.2 Secondary Corridors (Provincial Roads)

The secondary development corridors are as follows;

R34

- The R34 passes through the three provinces of Free State and KwaZulu Natal
The route provides an important east –west linkage through the area stretching from Cornelia, Frankfort, Heilbron, Edenville, Kroonstad and Welkom in the West. Apart from the effective inter-urban linkages it provides an important link for the distribution of agriculture related produce.

R59

- The route provides a strong linkage between the Gauteng province towns of Vereeniging, Meyerton, and Alberton with the Free State province towns of Sasolburg, Parys, Vredefort, and Viljoenskroon towards Bothaville. This route fulfils the important function from agricultural, commercial and tourism perspective and it needs to be promoted as such. On the Gauteng side this route is highly industrialised. The road provides access to the Vaal Triangle.
- The Metsimaholo SDF proposes that a detailed study should be carried on the land adjacent to the corridor R59 and its function in the larger urban context to determine the long-term outcome of the corridor. At the present moment a new proposed Township is being started, and it is in progress along the R59 for Metsimaholo Local Municipality.
- The proposal is that the Fezile Dabi District Municipality must make use of the already existing R59 hype and exposure of the freeway and extend the activities to the side of the Free State. A small portion of the R59 cuts between Naledi Industrial

Park and the Vaalpark residential suburb. More can be done along this freeway on the Free State side because of it being easily accessible and being in a good condition.

- The freeway is already part of the tourism in Parys as it is part of the main road buzzing with tourism activities.

R57

- This road links Gauteng via Vanderbijlpark and Vereeniging with Sasolburg and further Southwards through Heilbron towards Bethlehem (Eastern Free State).
- This route has a strong commercial (road freight to Sasolburg) and tourism (Eastern Free State) significance and it needs to be promoted as such. Heilbron and Sasolburg are located along this route and there is a need to maximise the route's potential.

R76

- This route links Klerksdorp (North West Province), Viljoenskroon, Kroonstad and Steynsrus further southwards towards Lindley/ Senekal and it provides an effective link to the mining areas of the North West and the agricultural centres along the route. Furthermore it also serves as a tourism link from the North West Province to the Eastern Free State. The towns along this route have agricultural significance, these towns also have tourism related activities like (guesthouses, arts/crafts activities).

5.8 Tourism Corridors

- With the natural attributes within the Fezile Dabi District Municipality, a number of primary tourism routes need to be identified and marketed as such.
- **Route 716 (Vaal Dam) – Scenic Route**
This route stretches from Villers northwards through Oranjeville, Deneysville towards Vereeniging all along the Vaal Dam. The Vaal Dam has become an important destination for weekend tourists and the boating fraternity.

- **R82 Battlefield Route – Historic Battlefields Route**

“Battlefield Route is not a journey; it is a rich experience”.

This road is a toll-free alternative route that connects Kroonstad to Johannesburg.

This route also leads to the Koppies Dam Nature Reserve.

The road is said to be a historic battlefield route with historic cemeteries including the Rooival cemetery.

The historic events and location on this route need to be profiled for comprehensive information.

- **Scenic Routes**

The Koepel Scenic Route (Sections of Roads S 264, 212, 80 and 713)

The Vaal Eden Scenic Road (Sections of Roads S 1052 and 171)

Roads S159 and sections of road R716 (to Jim Fouché resort road) providing relatively good access to various sections of the Vaal Dam.

5.9 Internal Streets

In the Metsimaholo SDF2016/17 there are proposals for corridor developments on certain streets of Sasolburg based on the detailed study that should be undertaken. Innovation and creativity will result into precinct plans of the area. The Eric Louw Road and Minnar Street are the two streets identified for corridors on the planned identified land and pieces of unplanned land. The internal streets in Metsimaholo need serious repairs from the bad condition which impairs the flow of traffic.

5.10 Development Guidelines and Marketing of Corridors

Specific guidelines are needed for creating development corridors. Some of the marketing elements for development corridors should incorporate the following;

- Regular repair and maintenance of the road’s infrastructure.
- A specific name for a corridor with the intention to create identity.
- Appropriate signage at the gateway and at different nodes.
- Marketing material and promotional material such as a website and advertisements should be developed.

- Information centre combined with the tourism centre.
- Specific incentives to be offered to prospective investors.
- Performance monitoring and aftercare to ensure that marketing measures are effective are recommended.
- Implementation should be monitored, and indicators of problem areas should be identified at an early stage

5.11 Infrastructure Development

Infrastructure plays a prominent role in urban rural linkages, it works as a bridge between the two worlds, between agriculture and other sectors of the economy. It eliminates poverty and reduces unemployment and inequality. The infrastructure in the municipalities has aged, has not been properly maintained and serviced.

Municipalities need to have capability and capacity to plan, maintain and deliver infrastructure. Funding is needed for needed for infrastructure development. Municipalities need to have infrastructure Master Plans that has maintenance, capacity building, deals with future growth upgrades budgeting and others. Infrastructure maintenance must be included in the IDP budgeting process.

5.12 Agricultural Development

The majority of the land within Fezile Dabi District Municipality is rural in nature and the agricultural sector is one of the main contributors to the local economy. By redistribution and land reform initiatives the government is creating employment, building the economy and ensuring that food security is sustained. The challenges faced by agriculture and rural development include,

- Uneven and disproportional distribution of social and economic facilities
- Lack of potable water and sanitation system
- Poor access to urban amenities
- Lack of development funding
- Lack of housing and the ongoing problem of farm evictions
- Shortage of employment opportunities
- Lack of a sufficient public transportation system

TABLE 18: MAIN AREAS OF PRODUCTION PER PRODUCT IN THE COMMODITY IN THE FREE STATE PROVINCE

MAIN AREAS OF PRODUCTION PER PRODUCT IN THE FS COMMODITY	MAIN PRODUCING AREA
Maize	Lejweleputswa, Fezile Dabi , Thabo Mofutsanyane
Wheat	Xhariep, Thabo Mofutsanyane, Fezile Dabi
Sorghum	Fezile Dabi
Potatoes	Xhariep, Thabo Mofutsanyane
Sunflower	Lejweleputswa, Fezile Dabi , Thabo Mofutsanyane
Red meat	Xhariep, Mangaung Metropole, Thabo Mofutsanyane, Fezile Dabi
Vegetables	Mangaung Metropole, Xhariep, Lejweleputswa
Dry Beans	Thabo Mofutsanyane
Fruits	Thabo Mofutsanyane
Peanuts	Xhariep, Lejweleputswa, Fezile Dabi
Wood	Mangaung Metropole, Xhariep, Thabo Mofutsanyane
Diary	Lejweleputswa, Fezile Dabi , Thabo Mofutsanyane
Cherries	Thabo Mofutsanyane

5.13 Land Reform

There are large portions of underdeveloped or underutilised land within the Fezile Dabi District Municipality. Although the process of land distribution is a dynamic process not linked to a specific locality, the following guidelines need to be considered during the promotion of the respective programmes:

- High potential agricultural land needs to be targeted
- Ongoing beneficiary capacitating should occur
- Partnerships need to be established with Farmers Unions to assist empowerment and assistance programmes
- Property ownership needs to be promoted.

5.14 Tourism

The Fezile Dabi District Municipality comprises of a number of tourism attractions (historical, scenic, heritage and others) which need to be emphasized and marketed in order to promote the rural economy. Tourism, ecotourism and heritage have the potential to create wealth and job opportunities in Fezile Dabi District Municipality.

5.15 Tourism focus areas

Although there are a number of tourism activities within the district municipality, the following areas attract international interest and should therefore be marketed as tourism focus areas;

5.16 Vaal River Tourist Zone

Along the frontage of the Vaal River there are a number of attributes and urban areas which need to be promoted in support of this natural asset. The urban centres of Villers, Oranjeville, Deneysville, Viljoensdrif, Sasolburg and Parys are all located adjacent or in close proximity to the Vaal River. The Vaal River provide recreation activities such as river rafting, water sports, fishing and river cruises.

5.17 Tourism Nodes

Tourism nodes are located within areas that are naturally scenic, areas of heritage significance, areas of recreation and leisure. These areas provide activities and facilities related to the tourism industry. These are areas of both national and international interest. All the towns in Fezile Dabi have different attractions and activities to offer. The town of Parys is the most visited weekend tourism destination in the district. Other towns like Sasolburg, Deneysville and Oranjeville have seasonal tourists' attraction activities like winter swimming competitions, summer water sports, etc.

5.18 Agricultural Nodes

These nodes are primarily located within dominant agricultural areas, and they provide housing, retail, social and agricultural related service.

5.19 Mining Nodes

Mining nodes are located in close proximity to mining operations and they provide residential, retail, social, and other complimentary services to the core mining operations. Towns with mini operations are Sasolburg, Kroonstad, Parys, Koppies and Viljoenskroon

5.20 Classification of Nodes and their economic significance

Primary Node: (Large Town) Sasolburg– Manufacturing and Petrochemical hub

Secondary Node :(Medium Towns) Kroonstad – Agricultural hub and logistics hub

Tertiary Node :(Small Town) Parys (Agriculture/Tourism), Viljoenskroon, Deneysville, Frankfort- Agriculture

4th Order node: Heilbron, Steynsrus, Oranjeville, Vredefort, Vredefort (Agriculture /Tourism), Edenville, Koppies, Villiers, Cornelia, Tweeling -Agriculture

Village: Kragbron, Holy Country, Viljoensdrif, Vierfontein, Renovaal

5.21 Sasolburg a Large Town (Node)

Sasolburg is an industrial hub with its existence directly linked to the petro chemical industry of the SASOL firm. Sasolburg is the chemical hub of South Africa. Sasolburg is regarded as the industrial hub of the Free State Province. The Sasol chemical industry is a catalyst in the development of the Sasolburg town. The Chem City is owned by the Sasol firm. It is an Industrial Park situated in Sasolburg. The Chem City occupies 120 ha land, on which light and medium industrial activities are taking place. Chem City is a business incubator that facilitates the establishment of independent downstream SMMEs for chemical and related sectors. This initiative clearly shows Sasol to be aligning itself with the national strategies of job creation and Broad-Based BEE. The company takes its social responsibility seriously.

5.22 Parys -Node

- Parys is a perfect Weekend Gateway destination from the hustle and bustle of the cities and busy towns.
 - Parys is about 111KM or 1 hours' drive from Johannesburg.
 - Parys has a unique character which attracts tourists and visitors who love art, adventure and good food.
 - The R59 road that passes through the town of Parys lined with restaurants which serve fast food, traditional Boere and Sotho food, boerewors, etc.
 - The R59 road is also lined with a number of arts and craft shops, garages and business containers
 - There is a unique Golf Island in the middle of the Vaal River
 - Parys is a home of several South Africa's prominent politicians.
- (www.infosa.co.za)2019-02-057)

5.23 Kroonstad- Node

Apart from providing a higher order service centre to agriculture, these urban nodes of Kroonstad and Viljoenskroon provide tourism related activities such as guest houses, arts and craft centres, and commercial facilities.

5.24 Frankfort – Node

Frankfort is the town where the municipal headquarters are, and it is the growth point of the Mafube municipality. Frankfort plays a very big role on regional service provision, industrial and commercial development. The town serves the surrounding agricultural community and the socio-economic needs of the communities in Mafube.

5.25 The Vaal River

The Vaal River is the Orange River's largest tributary. The Vaal River and its tributaries are said to be draining 20% of the Orange –Vaal basin. The Vaal River supports a community of about 12 million people of South Africa, and it also supports the different sectors of economy. The Fezile Dabi District Municipality towns built on the banks of the Vaal River are Deneysville, Oranjeville, Parys, Villers, Viljoenskroon and Sasolburg. The Vaal River forms 775 kilometres of the Northern border of the Free State, from Meyerville in the East to the North of Kimberley in the west. The Vaal River support activities of industry, mining, power generation agriculture, recreation, human consumption and many others in the Fezile Dabi District Municipalities. Currently the Vaal River is making headline news because of the extreme pollution situation in it. The Vaal River is one of the natural assets in the Fezile Dabi District Municipality that needs to be protected from pollution. Both The Fezile Dabi District Municipality and the Sedibeng District Municipality need to collaboratively have a long-term solution and preventative plan against the contamination and pollution of the Vaal River. The pollution of the Vaal River is a threat to the water supply, the economy, health and the social fabric. (www.infosa.co.za)2019-02-05.) “The sewage pollution of the Vaal communities and the river system destroyed the economic growth well beyond the areas through which it flowed as far afield as the Northern Cape, Mchunu admitted” 13th October 2021 Ster South”.

CHAPTER 6

6. Implementation Plan

A critical component of the SDF is the implementation plan which outlines the prioritisation and allocation of resources for infrastructure and development projects. The implementation plan is designed to align the district's development initiatives with its spatial vision and objectives, ensuring that investments are directed towards areas that will yield significant benefits. Hence, by integrating the implementation plan into the SDF the District aims to create a coherent and sustainable plan for development. This integration facilitates coordinated efforts towards enhancing infrastructure, boosting economic activities and improving the overall quality of life for its residents. The implementation of the SDF needs funding and political support, at the present moment the Spatial Planning Unit has no budget for planning and the implementation of the SDF.

TABLE 19 IMPLEMENTATION OF THE SPATIAL DEVELOPMENT FRAMEWORK

	SECTOR	PROJECT	ACTION	IMPLEMENTING AGENT	COST
1	Awareness Campaigns	• Pollution of the Rivers and Dams	• Pamphlets, Booklets, Advertisements about the negative effects of pollution	• Department of Water and Sanitation • Department Forestry, Fisheries and Environment	R200 00.00
	Tourism	• Tourism	• To have a tourism Strategy /plan. • Marketing and promotion of attractions in the district.	• FDDM, LMs, DBSA, IDC, NDT, NEF, Provincial Tourism and National Tourism Departments	R1 000 000.00

			• Assist town Parys to develop world class Tourism attraction. • Weekend Tourism is big in Parys, and it should be enhanced	• FDDM • FDDM, LMs, Provincial Tourism Department, Facilities owners • Ngwathe Local Municipality and FDDM	
	Tourism Corridors	• R716 (North of the VaalDam) • R156 (South of the VaalDam) • R82 Battlefield Route	• Upgrading and maintaining the condition of the roads • Profiling of the R82's Tourism history	• Provincial Department of Tourism • Local Municipalities, FDDM & Provincial Tourism Department.	

2.	Policies and By-Laws	To assist the LMs to draft different By Laws and policies needed to do urban and regional planning	The district must help the identified local municipalities to draft identified planning By-Laws and sector policies.	FDDM and LMs, COGTA, DRD &LR	R800 000.00
	Sector Plans	To assist the LMs to draft the Integrated Transport Plan (ITP)	All the municipalities in Fezile Dabi do not have Integrated Transport Plans (ITP)	FDDM, LMs, the relevant provincial departments	R1000 000.00
	Agriculture	- Identification of High Potential Agricultural Land - Commonages	- All the Local Municipality's SDFs must clearly mark the Urban Edge - High Potential Agricultural land be protected, no development should take place	- Local Municipalities, Dept. of Agriculture and Fisheries, Dept. of environmental affairs. - Local municipalities	

		• Food Security • Poultry and dairy farming • Employment creation	• Purchase or allocate land for commonages in Local Municipalities • Support Community food Gardens • Promote urban agriculture • Revitalization of dairy and poultry farming • Poverty alleviation & invest entrepreneurship	• All the Local Municipalities, DRL&LR • FDDM and Local Municipalities • FDDM and LMs • Local Municipalities • All the local municipalities and FDDM.	
	Public Transport and Infrastructure	• Taxi Ranks	• Upgrading of the taxi rank Kroonstad (Selborne Square)	• Moqhaka LM, FDDM	

		• New Taxi Ranks • (ITP) Integrated Transport Plans (IT	• Upgrading of taxi rank (Sasolburg) • Taxi rank SITE identified on (erf 30804) opposite Boitumelo Regional Hospital be developed • New Taxi ranks at identified areas • Need for Integrated Transport Plan (ITP) in LMs	• Metsimaholo LM • LMs • All the local municipalities	
3.	Manufacturing	• Youth empowerment and training	• Partnership with Sasol firm and other companies who are in the business of manufacturing	• All the local Municipalities, • Contact NYDA and NDF	
4.	Environment	• Littering • Landfill sites	• Awareness programs of the 3Rs, Reduce, Reuse and Recycle.	• FDDM and LMs • Moqhaka LM	

			• Expansion of landfill site proposed (Brentpark) • New regional landfill site must be identified and be built • Residential development should not occur 500m from land identified for landfill (Metsimaholo SDF 2016/17) • Landfill sites should be made safe (Ngwathe SDF2015/16) • Daily maintenance of landfill sites is necessary	• Moqhaka LM • Metsimaholo LM • Ngwathe LM • Ngwathe LM	
--	--	--	---	--	--

5.	Roads and streets	• Repair and maintenance of the roads and internal streets.	• Upgrading and maintenance of roads in all the municipalities. • Streets that need repairs must be identified • New streets be constructed • Street names and signage where needed must be put in place.	• All the Local Municipalities	
6.	Water, sewage and electricity	• Replacement of old and damaged infrastructure	• Replacement of old infrastructure and increase the capacity because communities have grown big. • Train the staff that is responsible to work in the infrastructure department • Prevent vandalism and theft of steel and copper from the infrastructure.	• In identified municipalities.	

	Waste management	• Integrated Waste Management	• Awareness Campaigns are necessary • Partnerships with stakeholders and communities in the industry • Clean-up campaigns • Formalisation of recycling initiatives in the district • Incentives for recycling • To stop the pollution of rivers and dams with waste and litter.	• Fezile Dabi District Municipality, all the Local Municipalities and the relevant provincial department	
7.	Energy and electricity	• Green energy for communities	• Solar power • Wind power • Hydropower	• Local Municipalities • Department of Energy and Mineral Affairs	R2 000 000
8.	Employment	• Youth Employment	• Youth Employment policies • Practical Skills and training programmes in entrepreneurship	• Local Municipalities and FDDM	

				National Youth Development Agency (NYDA)	
9.	Mining	Illegal mining	Illegal mining activities adjacent to the Vals River must be curbed	- Moqhaka LM - SAPS	

6.1 Agriculture

The value of agricultural in the Free State is said to have declined.

Here are the recommendations and suggestions for more benefits from agriculture

1. The introduction of Aquaculture farming of fish in the VaalDam and other rivers
2. Hydroponics –the cultivation of plants without soil.
3. Horticulture – cultivation of plants for food
4. New innovation agricultural practices of Diversification and Agribusiness. Diversification – “farm diversification is when a farm branches out from traditional farming adding new money-making activities”. Agribusiness – “Different types of business that are involved in farming such as growing crops, supplying seeds, manufacturing farm equipment and marketing farm products”.
5. Agro-processing – Agro – processing adds value to products and create opportunities
6. Food processing

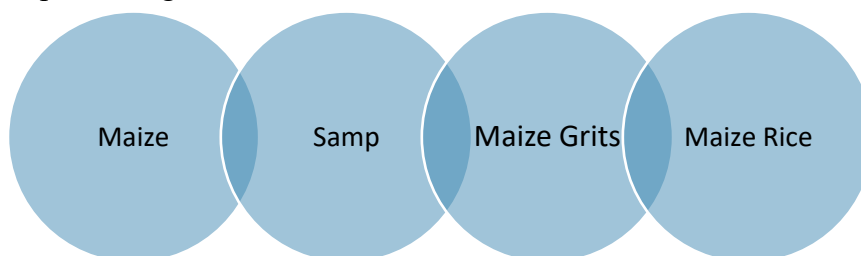


FIGURE 23: THE MAIZE VALUE CHAIN, MAIZE IS VALUE ADDED

6.2 Guidelines for the implementation plan

- a) The municipality must actively market the area
- b) The infrastructure around the area earmarked for development and other areas must be in a good condition
- c) Establish strong public private partnership (PPP)
- d) “It must be ensured that all capital investments made in the area by various spheres of government are aligned to the development goals and objectives of the municipality”.
- e) The municipality and state-owned land for business and other development must be identified.

6.3 Residential Development

A) Objectives

The following objectives should be adhered to when addressing residential developments

- Correction of historically distorted spatial patterns
- Promotion of spatial integration
- Promotion of diverse combination of land uses in support of each other
- Discouragement of urban sprawl and the promotion of more compact urban towns
- Optimization of the existing resources including the bulk infrastructure
- The introduction of different housing typologies

B) GUIDELINES FOR RESIDENTIAL DEVELOPMENT

When introducing the new developments the following should be considered;

- Availability of bulk infrastructure
- Ownership of land
- Access to social amenities and economic opportunities
- Access to public transport
- Integration of the urban structure

6.4 Commercial and Industrial Development

6.4.1 Principles

With the respective urban centres linked to functionality, it is imperative that these areas be promoted as such. However notwithstanding, the above, all the urban centres have Central Business Districts (CBD) and industrial centres which vary in nature and extent. In the development of these areas, the following elements need to be considered;

- The majority of the CBDs are underdeveloped in terms of bulk infrastructure
- Future developments should focus on maximising underdeveloped buildings and vacant land
- Strengthen the existing CBD and discourage urban sprawl.
- Some higher order retail and commercial activities need to be developed in historically disadvantaged areas (where required) without compromising the CBD.
- Vacant industrial sites owned by municipalities need to be marketed by way of introducing incentive schemes
- New areas for industrial sites need to be identified

6.4.2 Proposed Incentives for Investors

In order to promote and facilitate economic growth within the respective urban nodes the proposed incentives are as follows;

- Tax incentives (municipal tax rebates)
- Land incentives, municipal owned land be availed for rentals and purchase.
- Bulk incentives, where a developer can obtain reduction to bulk services payments.
- Development rights, where higher land use rights are allocated in specific areas.

6.5 Informal Trading

Although the informal traders play a vital role within the economic domain by providing jobs and generating a basic income, a number of guiding principles need to be set and implemented to reduce conflict situations with the public and private sector. These principles are as follows:

- Identified trading areas need to be demarcated within the municipality.
- Informal traders should not occupy space in front of formal business, like shop fronts, shop windows, balconies etc.
- No trade should be conducted on the intersections of roads

- Narrow sidewalk should not be used for informal trading
- Informal traders should be registered
- Proper storage, cleaning and toilet facilities should be arranged and provided.

These are only guidelines, proper by –laws must be prepared by the municipalities with the help of the district municipality and sector departments.

6.6 Homebased Activities

With the emphasis on economic growth and job creation, a number of home-based economic activities are evident within the urban and the rural environment.

- The aesthetic value of the area must not be compromised by the business.
- The type of activity or business should not become the dominant activity on the residential site.
- The home business activity should not be detrimental to the surrounding residential environment from a noise and traffic generation
- No noxious and industrial activities should be allowed in residential areas.
- Activities such as taverns and restaurants should be encouraged to go to development corridors in the Central Business Districts (CBDs) and areas earmarked for business in the SDF and the layout plan of that municipality.

6.7 The implementation of the SDF should address four aspects which are:

- **Infrastructure and Capital Investment;** these are major projects which may include infrastructure, amenities, and other big projects affecting the spatial structure.
- **Further Studies and Plans;** it is important to undertake studies of areas that are going to be developed, and it is important to develop precinct plans and formulate specific land development policies for them.
- **Urban Management Requirements;** urban management deals with operational interventions, such as safety, cleaning, by-laws enforcement, etc.
- **Development Incentives;** Development incentives are said to be a range of measures that can be employed by local government or a municipality to attract investors and developers to come and do or build business in a certain area. These measures make the area more feasible for development. These incentives are, amongst others;
-Tax incentives, which can be tax rebates and others.

- Land incentives, where government can avail land to developers for projects.
- Development rights incentives are land use rights and relaxed and accommodating rights
- Bulk Infrastructure should be readily available to be connected to the development.

The SDF can be implemented in different ways in a municipality, such as the following;

- The municipality's IDP
- Departmental (sectoral) planning
- The municipal budget
- Land Use Management.

6.8 Recommendations

1. **Institutional Integration**; alliance among institutions must be encouraged. This will increase sharing of resources, efficient use, management and decreasing duplication and waste.
2. **Corporate governance**; inter- governmental relations and collaboration of national, provincial and local government, that is of the three spheres of government.
3. **Integrated development planning**; interaction and participatory approach to integrate economic, spatial, social, institutional, environmental and fiscal strategies in order to support the optimal allocation of scarce resources between sectors and geographical areas and across the population in a manner that provides sustainable growth, equity and the empowerment of the poor and marginalised (forum for effective planning Development, 1995).

6.9 Capital Expenditure Framework (CEF)

The Capital Expenditure Framework (CEF) within the Fezile Dabi District Municipality's Spatial Development Framework (SDF) is a strategic tool designed to align the municipality's capital investments with its spatial planning objectives. This alignment ensures that infrastructure development and service delivery are both efficient and equitable across the district.

The Capital Expenditure Framework (CEF) provides a comprehensive, high-level overview of the municipality's capital investment requirements over the short to medium term. It considers not only infrastructure development but also broader socio-economic and

spatial development needs, outlining how these can be financed and the potential impact on the financial sustainability of the municipality. The primary role of the CEF is to support the spatial vision and development priorities set out in the Fezile Dabi District Municipality's Spatial Development Framework (SDF). It identifies where capital investment should be focused, highlights key interventions, specifies their locations, and determines the responsible stakeholders. This ensures that capital investments and project implementations align with a long-term, integrated strategic, spatial, financial, and socio-economic approach.

Section 21 of the Spatial Planning and Land Use Management Act 16 of 2013 requires the inclusion of a CEF within their SDFs to ensure that capital investments support the spatial vision and objectives outlined in these frameworks. Without a direct connection between the SDF and implementation mechanisms like the CEF, spatial planning proposals risk remaining unfulfilled. By clearly outlining what investments should be made, where, and in what sequence of priority, the CEF ensures that municipal strategies, plans, and policies are in sync. Additionally, it helps prevent budget allocations from conflicting with or undermining the objectives of the SDF.

It is essential to recognize that the CEF is a strategic planning tool rather than a formal budgeting document. The capital investment needs identified within the CEF may exceed the municipality's available financial resources within a given period. Therefore, it serves as a framework to identify investment priorities and allocate limited resources effectively over the short, medium, and long-term (10 years).

GLOSSARY OF TERMS

Agenda 21	Agenda 21 is an international program adopted by more than 178 governments to put sustainable development into practice around the world.
Biodiversity	The number and variety of plants and animals, the generic variability within species and diversity of habitats and ecosystems.
Category B Municipality	A municipality that shares
Category C Municipality	A municipal executive and legislative authority in its area with a category C municipality within whose authority it falls municipality that has municipal executive and legislative authority in an area that includes more than one municipality
Corridor	Corridors are links between nodes
Covid -19	The Covid -19 viruses is a new virus linked to the same family of viruses linked as Severe Acute Respiratory Syndrome (SARS) and some type of common cold.
Density	The number of units per unit of land area, e.g. dwelling units.
Densification	The process of increasing density, that is, the number of people living in a specific area.
Ecosystem	It is a dynamic system of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit.
Extensive Agriculture	It is an agricultural production system that uses small inputs of labour, fertilizers and capital.
Efficiency	Land development must optimise the use of existing resources and infrastructure, and decision-making procedures must minimise negative financial, social, economic or environmental impact.
Flood Line	Flood Line means an indicative line indicating the maximum level likely to be reached by floodwaters on average once in every 100 years. (Section 144 of the National Water Act No. 36 of 1998)
Food Security	It is the state of having reliable access to a sufficient quantity of affordable, nutritious food through the locally grown produce and for imports.
Geo-hydrological	This is the study of groundwater and its physical and chemical interactions with physical environment.
Hydrology	Hydrology is the study of the distribution and movement of water both on and below the Earth's surface, as well as impact of human activity on water availability and conditions.
Integrated Development Plan	The strategic municipal development reviewed plan on annual basis, required by MSA (Act 32 of 2000)

Infill Development	Development of vacant or underutilized land within existing settlement in order to optimise the use of infrastructure, increase urban densities and promote integration.
Intensive Agriculture	It is an agricultural production system characterised by the high inputs of capital labour, heavy usage of technologies such as pesticides and chemical fertilizers.
Land Use	Land Use is the term used to describe the human use of land. It represents the economic, social and environmental activities such as agriculture, residential, industrial, mining, recreation, etc.
Land Use Management	It is establishing or implementing any measure to regulate the use or a change in the form or function and includes land development.
MOSS	Metropolitan Open Space System
Nodes	A node is defined as characterised by a concentration of mixed –use activities around a specific point. “A well-defined and legible urban environment where highly accessible, mixed and compatible land uses are concentrated and serviced”.
RAMSAR	Convention of Wetlands of International Importance
Rezoning	The process of assigning land or property to a different category of restriction on use and development.
Sustainability	It means avoidance of the depletion of natural resources in order to maintain an ecological balance.
Settlement	A settlement is a small community, village or a group of houses in the thinly populated area.
Stakeholders	Stakeholders are agencies, organisations, groups or individuals who have a direct or indirect interest in a development intervention or its evaluation.
Township	Township means area of a land divided into erven and may include public spaces and roads indicated as such on a general plan
Township Register	It an approved subdivision register of a township in terms of the Deeds Register Act
Urbanisation	Urbanisation is the process through which the higher percentage of the population comes to live in the cities and towns and contribute to the growth of the city.
Urban Edge	A demarcated line and interrelated policy that serves to manage, direct and limit expansion.
Urban Sprawl	The urban expansion of urban areas across the landscape and the conversion of forested, wetland and agricultural areas to urban areas
Zone	Zone means defined category of land use that is shown on the zoning map of a land use scheme

