DRAFT SOCIO- ECONOMIC AND INFRASTRUCTURE REPORT
FOR THE LEJWELEPUTSWA DISTRICT MUNICIPALITY

FOR THE
DEVELOPMENT OF ENVIRONMENTAL MANAGEMENT FRAMEWORKS FOR SIX DISTRICT MUNICIPALITIES IN FOUR PROVINCES

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LIST OF ACRONYMS

DALRRD	Department of Agriculture, Land Reform and Rural Development
DFFE	Department of Forestry, Fisheries and Environment
DM	District Municipality
EAP	Economically Active Population
EMF	Environmental Management Framework
EMIS	Education Management Information System
FS DPRT	Free State Department of Police, Roads & Transport
GDP	Gross Domestic Product
GVA	Gross Value Added
HDI	Human Development Index
IDP	Integrated Development plan
LM	Local Municipality
LUMS	Land Use Management Scheme
MSA	Municipal Systems Act, Act 32 of 2000

NASA	National Aeronautics and Space Administration
NSDF	National Spatial Development Framework
PSDF	Provincial Spatial Development Framework
SANRAL	South African National Roads Agency Limited
SDF	Spatial Development Framework
SEZ	Special Economic Zone
SPLUMA	Spatial Planning and Land Use Management Act 16 of 2013)
LDM	Lejweleputswa District Municipality
UNESCO	United Nations Educational, Scientific and Cultural Organization

EXECUTIVE SUMMARY

The Lejweleputswa District Municipality is a Category C municipality, located in the north western part of the Free State province. It lies in the Free State Goldfields because of its rich mineral deposit of gold.

The district is made up of five local municipalities namely: Masilonyana, Tokologo, Tswelopele, Matjhabeng and Nala LM. The Masilonyana LM is a poor semi-urban area with a high unemployment rate. It consists of the politically rich town of Brandfort which includes the National Military Museum on a farm that used to be a concentration camp during the Anglo-Boer War and the Winnie Mandela House, where Winnie Mandela was sentenced to House Arrest during the State of Emergency in the 1980s. Tokologo LM's main economic sector is agriculture dominated by maize and wheat farming. Tswelopele LM houses the Bloemhof Dam Nature Reserve which covers 47% of the municipal area. The main economic activity in Tswelopele is agriculture. Matjhabeng LM is the hub of mining activity in the Free State Province, making mining and manufacturing the key economic activities in the area. The Nala LM forms the "maize-triangle" of South Africa and is a prominent area in the production of meat and dairy products.

The topography of the district is that of slightly undulating plains and pans, low lands with hills, plains and pans are slightly irregular undulating plains and hills. The most prominent rivers in the district are the Vaal, Modder, Vals, Sand and Vet Rivers which are important sources of drinking water and agriculture. There are several ecological aqua zones in the district, intending to protect endangered vegetation and water species. The district's rainfall falls in the summer season with the highest rainfall in the east. It has moderate temperatures in summer and cold winter conditions.

The population of the Lejweleputswa District municipality increased from 624 746 in 2011 to 646 920 in 2016. The Matjabeng LM has the largest population, with 407 020 people in 2011 and 429 113 in 2016. Tokologo Local Municipality had the lowest population in 2011, with 47 625 people, and 47 373 in 2016. The district consists of 89.45% of the Black population making them the largest group to occupy the area. There are 50.31% females and 49.69% males in the district with a large population of the working age group making up 28.07% of the total population. The district had 229 267 households in 2019, with a population density of 20.1 people per square kilometre.

In 2019, Lejweleputswa employed 142 000 people which is 18.26% of the total employment in Free State Province (779 000). The trade sector employed the largest number of workers in 2019 with a total of 28 400 employed people or 20.0% of total employment. The unemployment rate of the district was a staggering 50.9% in 2019. This makes the district one of the province's poorest municipalities, having the highest unemployment rate. According to IHS Markit (Global Insight), the Lejweleputswa District had 45.9 % of its population living below the poverty line in 2019.

Although mining is the largest contributor to the district's GDP, it has been affected by economic factors such as decreased world commodity prices recently fuelling the sector's downfall. The district's second biggest contributor to the local economy is agriculture.

The overall percentage of the population with access to electricity is high (85.56%). Similarly, access to drinking water is also high (95.3%). Several major dams that contribute to this are the Bloemhof Dam, the Alemanskraal Dam, and the Sandveld Dam. The district also boasts a high number of households with access to a flushing toilet, accounting for 95.3% of the total population. A total of 79.31% of households have their refuse removed weekly by the authority.

The district is performing well with regard to providing communities with access to basic services. However, several development challenges exist. One, Masilonyana LM has no major urban centre, meaning its inhabitants have to travel far for commercial and economic services. Two, Tswelopele LM has no major businesses in the area which is a disadvantage for the local community and economy. Three, Matjhabeng LM has a high unemployment rate due to the closure of mines. All of these development challenges have a major effect on the economic potential and quality of life of the district.

1. INTRODUCTION

The Lejweleputswa District Municipality (LDM) has embarked on the development of the Environmental Management Framework (EMF). The LDM EMF was initiated through a concurrent agreement between the national and provincial ministers responsible for environmental affairs in terms of Chapter 5 of the National Environmental Management Act (1998). It was prepared as a joint initiative between the Department of Agriculture, Land Reform, Rural Development (DALRRD), the Department of Forestry, Fisheries and Environment (DFFE) and the LDM. The need for the EMF was driven by authority concerns in the district regarding the following environmental issues:

- The decline in air quality,
- The extent of water pollution,
- Land degradation and other environmental issues that may negatively affect local people and the growing economy, as well as
- The lack of adequate information to make more informed decisions.

Muvuledzi Consulting (PTY) Ltd has been appointed to conduct the EMF process on behalf of and in collaboration with the LDM, DALRRD and other key role players in the district.

1.2 PURPOSE

The National Environmental Management Act: EMF regulations 2010 and the EMF guidelines of 2012 outline the purpose of and set the legislated requirements for developing an EMF. The main purpose of an EMF is to streamline and facilitate efficient implementation of the EIA process. This is possible due to the pro-active nature of the EMF which allows for the anticipation and prevention of environmental damage before development proposals are evaluated. In addition to the benefits associated with the EIA process, the EMF includes a strong spatial output, namely the Environmental Information Management System (EIMS), Environmental Management Framework Plan and the exclusion standards and implementation protocol, defined in this process as the Decision Support Tool (DST) as well as standards. The DST facilitates access to the EMF information and outputs by users of the EMF which include developers, planners, decision-makers, and broader society.

1.3 AIM

In view of the above context, the specific aim of the EMF is to: **Integrate environmental sustainability into municipal planning and operations, and to inform decision making regarding specific development applications in terms of the EIA and other regulatory processes.**

Objectives

The following objectives need to be met in order to fulfil this aim:

i. Document and provide spatially referenced information indicating the location, sensitivity and value of resources and systems (Present State).
ii. Document the drivers, factors, and trends responsible for the Present State and analyse these in determining the key sustainability issues.
iii. Establish the Desired Future State (DFS) and environmental management priorities in the area.
iv. Define opportunities and constraints for different land-uses and development activities.
v. Develop tools that provide for the effective application of the information and outcomes of the process at a planning and project level (EIA), and appropriate responses to address and manage the environmental issues identified.

2. LEGISLATIVE CONTEXT

2.1 THE CONSTITUTION

2.1.1 What the Constitution says about the environment

The Constitution of the Republic of South Africa Act (Act 108 of 1996) is the supreme law of the land, and it contains several environmental aspects. Section 24 of the Constitution states that everyone has the right to:

- an environment that is not harmful to their health or well-being
- have the environment protected for the benefit of present and future generations through reasonable legislative and other measures that:
    - prevent pollution and ecological degradation
    - promote conservation
    - secure ecologically sustainable development and use of natural resources, while promoting justifiable economic and social development.

Section 24 of the Constitution has two important consequences. One, it protects our health and well-being. Two, it makes the state, businesses, and all South Africans responsible for preventing pollution and other environmental damage, as well as promoting conservation and sustainable development. Every government authority, national, provincial, and municipality, has a responsibility to take reasonable actions to prevent pollution, promote conservation, and ensure sustainable development in its existing functions and future goals.

Other fundamental rights in the Constitution which support environmental demands include:

- The right to life (Section 11)

- The right to human dignity (Section 10)
- The right to privacy (Section 14)
- Certain socio-economic rights.

Socio-economic rights relevant to environmental rights:

- the right of access to adequate housing (Section 26).
- the right of access to sufficient food and water (Section 27).
- the right of access to health care services (Section 27).
- the rights of children to basic nutrition and shelter, and to be protected from maltreatment, neglect, abuse, or degradation (Section 28).

2.1.2 What the Bill of Rights says about the violation of the environment

The state is prohibited from infringing on the right to environmental protection and is also required to protect the environment from any detrimental action. It must ensure ecologically sustainable growth and resource usage while fostering acceptable economic and social development.

The Bill of Rights, according to Section 8 of the Constitution, applies to non-state entities and persons whenever relevant. In theory, Section 8 protects us from individuals and businesses who pollute the environment or do other environmental harm. In other words, environmental rights must be respected by more than just the state. Private firms and others must likewise respect the right to the environment.

2.1.3 What the Constitution says about local government

The Constitution of the Republic of South Africa (Act 108 of 1996) mandates local government to "carry out a range of developmental obligations." This mandate is stated in Chapter 7 as follows:

- Provide democratic and accountable government for local communities
- Ensure the provision of services to communities in a sustainable manner
- Promote social and economic development
- Promote a safe and healthy environment
- Encourage the involvement of communities and community organisations in the matters of local government

2.2 NATIONAL, PROVINCIAL AND REGIONAL PLANNING FRAMEWORKS

2.2.1 National Planning Frameworks

2.2.1.1 Spatial Planning and Land Use Management Act

SPLUMA (Spatial Planning and Land Use Management Act 16 of 2013) is a 2013 national law passed by Parliament. The law empowers the Department of Rural Development and Land Reform (DRDLR) to issue Regulations under SPLUMA that describe how the law should be implemented in more detail.

The primary goal of SPLUMA is to offer a framework for the establishment of planning and land use management policies and processes at the national, provincial, and local levels of government. The principles of spatial justice, spatial sustainability, efficiency, spatial resilience, and good administration are as follows: "Spatial justice," "spatial sustainability," and "spatial resilience" are all related to social justice, sustainability, and resilience, but they are all profoundly founded in spatiality.

In relation to the environment, the purpose of SPLUMA is to promote a balance in meeting the socio-economic needs of people with environmental management. One of the principles of SPLUMA is "spatial sustainability". This means that to protect key agricultural land, environmental management measures like NEMA must be used. Land development should be spatially limited to prevent unsustainable settlement and infrastructure patterns. The promotion of land use management based on principles of socio-economic and environmentally sustainable development is referred to as spatial sustainability.

2.2.1.2 National Spatial Development Framework

The National Spatial Development Framework (NSDF) is a long-term spatial strategy aimed at the year 2050. The Spatial Planning and Land Use Management Act of 2013 (SPLUMA) requires the NSDF to be aligned with the 2030 National Development Plan (NDP). In terms of SPLUMA, the NSDF is a major national spatial development policy and provides the following:

- A visual representation of the desired national spatial development pattern for the country.
- a set of national spatial guidelines that apply to all types of infrastructure investment and growth in the country, and
- A set of national strategic spatial areas in which the government and business sector can make targeted investments.

The NSDF relates to the environment by identifying and earmarking broad categories of high potential agricultural land for food security and agrarian reform, and environmentally significant areas for the provision and use of essential ecosystem services.

2.2.1.3 National Development Plan

The National Development Plan aims to eliminate poverty and reduce inequality by 2030. South Africa can achieve these aims, according to the plan, by harnessing the energy of its people, establishing an inclusive economy, building capabilities, strengthening the state's capacity, and fostering leadership and partnerships across society.

The NDP envisions a more diverse energy market with an opportunity for investors to provide innovative and sustainable energy solutions while operating within sound regulatory frameworks. Environmental sustainability is continually emphasised "through efforts to minimize pollutants and alleviate the effects of climate change."

2.2.2 Provincial Planning Framework

2.2.2.1 Free State Provincial Spatial Development Framework

The Provincial Spatial Development Framework (PSDF) for the Free State promotes a "developing state" in compliance with national and provincial legislation and directives. It is consistent with the Free State's Provincial Growth and Development Strategy, which aims to "create a prosperous, sustainable, and rising provincial economy that lowers poverty and improves social development."

The aim of the PSDF is to:

- Serve as a spatial plan that facilitates local economic development.
- Facilitate cross-border cooperation between municipalities, neighbouring provinces, and bordering nations.
- Serve as a guidebook for integrating and standardizing all domains of government in the province's planning frameworks.

In relation to the environment, the PSDF identifies important spatial development challenges, critical nodes, and zones with potential for development, and natural systems and environmental areas where development should be controlled carefully and sensitively.

2.2.3 Local Planning Framework

2.2.3.1 Municipal Integrated Development Plans and Spatial Development Plans

The Integrated Development Plan (IDP) is a five-year strategic planning tool that the municipality uses to fulfil its function as a developmental local government and to enhance coordination and integration of planning and development across all levels of government. Every municipality is required to develop an Integrated Development Plan (IDP). The municipality is in charge of the IDP's coordination, and it must enlist the help of other local stakeholders who can have an impact on and/or profit from development.

A Spatial Development Framework (SDF) is a framework that aims to direct the overall geographical distribution of current and desirable land uses within a municipality in order to implement the local IDP's vision, goals, and objectives.

Regulations made under the Local Government: Municipal Systems Act, Act 32 of 2000 (MSA) 11 set out the requirements for an SDF, including that it "must provide a visual representation of the desired spatial form of the municipality…which representation must indicate desired or undesired utilisation of space in a particular area"[1] and "must contain a strategic assessment of the environmental impact of the [SDF]".[2] An EMF could, therefore, be used to inform the Strategic Environmental Assessment (SEA) or to "determine the desired or undesired utilisation of space in a particular area."

[1] Regulation 4 (i)(ii) of the EMF Regulations
[2] Regulation 4(f) of the EMF Regulations

The MSA requires that IDP and SDF compilers take into account any information provided in a relevant EMF. When compiling or revising an IDP or SDF, a municipality that fails to evaluate an appropriate EMF fails to consider a relevant document. Because environmental resources are critical to development planning and establishing how land should be used, the EMF should be used to inform the SDF. As a result, the EMF might be incorporated into the SDF as an environmental "layer" or set of "layers," allowing for the identification of locations that are good for or unsuitable for specific land uses. As a result, the EMF's EMZs should directly inform the SDF's spatial planning categories.

2.2.3.2 Land Use Management Schemes

A Land Use Management Scheme (LUMS) is a tool used by municipalities to govern and manage land development in accordance with the IDP and SDF's vision, plans, and policies, while also supporting the public's interest in promoting sustainable development.

The purpose of a LUMS is to:

- make the economy grow and create job opportunities.
- create a safe, healthy, and sustainable built environment.
- strike the right balance between meeting community needs and protecting our natural and built heritage environment; and
- plan and manage the development of our available land, which is becoming an increasingly scarce resource.

Zoning is used by municipalities to organize and manage where and how development takes place inside their boundaries. It aids in the improvement of air and water quality, the creation of more open spaces in the urban environment, and the reduction of land taken up by uncontrolled city expansion. Effective management of land use aids in the reduction of soil erosion, the enhancement of wetlands and habitat conservation, and the preservation of recreational areas. Uncontrolled development would have the opposite impact, destroying habitats and the environment. As a result, an area's economic growth potential would be impacted.

3. PROJECT AREA

3.1 GEOGRAPHY

The Lejweleputswa District Municipality is a Category C municipality, located in the north western part of the Free State province and is about 32 287 square km². It shares a boundary with North West province to its north west, Fezile Dabi and Thabo Mofutsanyana district municipalities to its east, Mangaung metropolitan and Xhariep district municipalities to its south, and the Northern Cape province to its west (Cooperative Governance and Traditional Affairs, 2020).

Lejweleputswa means "grey rock,". It has a long history of gold mining. The Lejweleputswa district is located in the province's goldfields and is rich in gold reserves. The Free State Goldfields were discovered in the early 1940s when a borehole was drilled for water and instead encountered gold ore lava. The National Military Museum and the Winnie Mandela House are both located in the

district. Winnie Mandela was condemned to house arrest during the State of Emergency in the 1980s. The area is also a notable grower of maize and sunflowers (Cooperative Governance and Traditional Affairs, 2020).

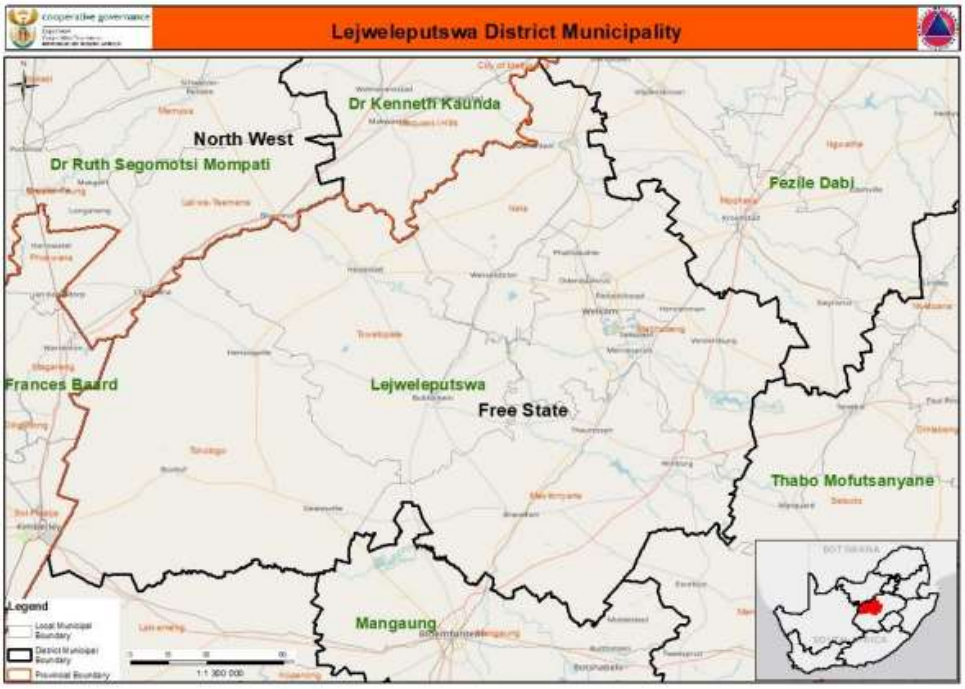

Figure 1: Lejweleputswa District Municipality
Source: Cooperative Governance and Traditional Affairs (2020)

3.2 MUNICIPAL BOUNDARIES

Lejweleputswa District makes up almost a third of the province and consists of the following five local municipalities namely: Masilonyana, Tokologo, Tswelopele, Matjhabeng and Nala (Cooperative Governance and Traditional Affairs, 2020).

Map 1: Municipal boundaries of the Lejweleputswa District Municipalities
Source: Cooperative Governance and Traditional Affairs (2020)

3.2.1 Masilonyana Local Municipality

The Masilonyana Local Municipality takes its name from a nearby mountain. It is one of five municipalities in the district, which covers a total area of 6 618 km². It is located between Mangaung Metro, the province's largest municipality, and Matjhabeng, the province's second-largest municipality. The previous Transitional Local Councils of Theunissen, Brandfort, Winburg, Soutpan, and Verkeerdevlei merged to become the municipality.

It is a destitute semi-urban area with a high rate of unemployment. The Verkeerdevlei Plaza on the N1 is the last toll plaza before entering Bloemfontein from the north, and the Brandfort Plaza on the former R30 (now ZR Mahabane Road) is located between Brandfort and Bloemfontein. Brandfort is also noted for its rich political past, which includes the National Military Museum, which is located on a farm that was previously a concentration camp during the Anglo-Boer War, and the Winnie Mandela House, where Winnie Mandela was condemned to House Arrest during the 1980s State of Emergency. Theunissen is also located on the ZR Mahabane Corridor, which runs from Bloemfontein and Welkom, and is home to three mines. Because of its location, 100 kilometers west of Bloemfontein, and its connection to Johannesburg, Cape Town, and Durban, Winburg has economic potential. Its Heritage Site is the Voortrekker Monument, and Masilonyana has various game reserves spread among its communities. The Florisbad National Quaternary Research Station, for example, is one of the municipality's tourist attractions. The world's first human skull was unearthed here. In Southpan, there are also cooperatives producing salt from the salt lakes. Brandfort, Soutpan, Theunissen, Verkeerdevlei, and Winburg are also important towns. Agriculture, mining, and community services are the main economic sectors (Lejweleputswa District Municipality, 2012).

The municipality comprises the following towns: Winburg, Theunissen, Brandfort, Verkeerdevlei and Soutpan. There are no large urban centers, and it is 45 kilometers to Bloemfontein and 58 kilometers to Welkom from Theunissen. The N1 toll gate, as well as the N1 road that runs through the area, benefit the municipality. It is primarily a rural region with no big cities. Crop and livestock production

are agricultural activities that support the economy. In addition, there are large mining operations in the area. The Erfenis Dam is the area's primary water source. The Soetdoring Nature Reserve in Soutpan is a tourist attraction in the area (Cooperative Governance and Traditional Affairs, 2020).

The municipality has ten municipal wards.

3.2.2 Tokologo Local Municipality

The name Tokologo comes from a Setswana term that means "freedom," and it comes from the oppressed people's never-ending fight that culminated in their liberation on April 27, 1994. The municipality borders the North West Province in the north, the Xhariep District in the south, Tswelopele and Masilonyana in the east, and the Northern Cape Province in the west. It is one of the district's five municipalities, accounting for over a third of the district's total area of 9 326 km². The municipal territory is divided into three sections: Boshof (the capital), Dealesville (to the east), and Hertzogville (to the north). Boshof, Dealesville, and others are important towns. The key towns are Boshof, Dealesville, and Hertzogville and the key economic activity is agriculture (Cooperative Governance and Traditional Affairs, 2020).

The municipality is composed of the following towns: Hertzogville, Dealesville and Boshof. The municipality’s spatial character of note is that it has vast tracts of land which are mostly agricultural. There are a variety of agricultural operations carried out there, with maize and wheat farming being the most common. There are other mining reserves in the area that have yet to be fully exploited. Game farming consumes a greater proportion of the available land in the area. In Boshof, there is also a conservation area that must be taken into account while planning. The R64 connects the towns with Bloemfontein, and the R708 connects the local municipality and district with the North West province and Christiana town (Cooperative Governance and Traditional Affairs, 2020).

The municipality has seven municipal wards.

3.2.3 Tswelopele Local Municipality

The Tswelopele Local Municipality takes its name from a Sesotho word that means "progress," and it was founded in 1994 to provide visible services and infrastructure to the community. Tswelopele is made up of about 47% natural environment, including two formal land-based protected areas, the Bloemhof Dam Nature Reserve (632 ha) and the Sandveld Nature Reserve (632 ha) (24 883.5ha). Bultfontein and Hoopstad are the biggest settlements, covering over a quarter of the geographical area (6 524 km2). Agriculture is the main source of income (Cooperative Governance and Traditional Affairs, 2020).

Hoopstad and Bultfontein are the two towns that make up the municipality. The Sandveld Nature Reserve in Hoopstad is one of the greatest tourist attraction reserves in the Free State. The neighborhood is one of the districts that have the potential to attract tourists (Cooperative Governance and Traditional Affairs, 2020).

The municipality has nine municipal wards.

3.2.4 Matjhabeng Local Municipality

The Matjhbeng Local Municipality was named after a Sesotho phrase that means "where countries meet." It comes from the migratory labour system, which brings together people from many nations such as Lesotho, Mozambique, and others to work in the Goldfields mines. Nala to the north, Masilonyana to the south, Tswelopele to the east, and Moqhaka to the west define the municipality. It is one of the district's five municipalities (Cooperative Governance and Traditional Affairs, 2020).

In the Free State Province, Matjhabeng is the center of mining activities. The Willem Pretorius Nature Reserve is the municipality's only formal land-based protected area. The Matjhabeng Municipality has only one biome, grassland. Bloemfontein Karroid Shrubland, Central Free State Grassland, Highveld Alluvial Vegetation, Highveld Salt Pans, Vaal-Vet Sandy Grassland, Western Free State Clay Grassland, and Winburg Grassy Shrubland are the seven vegetation types identified. The Matjhabeng Municipality is home to one endangered environment that covers 11% of the land (Cooperative Governance and Traditional Affairs, 2020).

Only one water management area, the Middle Vaal, exists. The Koolspruit, Sand, Sandspruit, and Vet rivers all run through the municipality. The Matjhabeng Municipality has 5.5% wetlands. Allanridge, Hennenman, Odendaalsrus, Ventersburg, Virginia, and Welkom are also important towns. Mining and manufacturing are key economic activities, and it is Lejweleputswa's main economic, educational, and leisure core, with all of the required amenities to sustain economic growth (Cooperative Governance and Traditional Affairs, 2020).

The municipality has thirty-six municipal wards.

3.2.5 Nala Local Municipality

The name "Nala" comes from a Sesotho word that means "plenty." It comes from the area's corn belt and economic prosperity. The region is part of South Africa's "maize-triangle" and is a major producer of meat and dairy products. The Nala Local Municipality was formed by combining the previous Bothaville and Wesselsbron Traditional Local Councils, as well as a piece of the Vetvaal Transitional Rural Council. Bothaville/Kgotsong is around 50 kilometers south of Klerksdorp, 80 kilometers north of Welkom, and 200 kilometers south of Gauteng. Wesselsbron/Monyakeng lies 70 kilometers south of Bothaville, 35 kilometers west of Welkom/Odendaalsrus, and 55 kilometers east of Hoopstad. The Nala region is located within a significant agricultural region. Bothaville is strategically located close to the gold mining towns of Klerksdorp/Orkney, whilst Wesselsbron is nearby of Welkom/Odendaalsrus. Communities are directly dependent on these large urban centres for institutional and commercial support (Cooperative Governance and Traditional Affairs, 2020).

Wesselsbron and Bothaville are two of the municipality's urban areas. It mostly consists of an agricultural area dedicated to crop production. The Vet River provides an advantage for an irrigation project in the area. On the banks of the Vaal River, recreational facilities have been built. It also offers the possibility of an irrigation system. The Vals River also gives a chance for irrigation schemes to be established. On the route to Orkney and Matlosana, 18 kilometers outside of Bothaville, is the Nampo, an agricultural node. The annual Nampo agricultural exhibition, which draws visitors from all over the world, is recognized as one of the best in the world (Cooperative Governance and Traditional Affairs, 2020).

In the Free State Province, there are three important rivers, two of which pass through the Nala Municipality. The Vals River flows from east to west through Bothaville, towards the Vaal River, which forms the municipality's north western boundary, while the Vet River flows immediately south of the Wesselsbron area, forming the Nala region's southern boundary. Both rivers contribute significantly to the water supply in Bothaville and Wesselsbron, respectively. The area's topography is uniform, with mild slopes. The fragile wetland system just south of Wesselsbron is the sole important natural feature. Agriculture is the main economic activity in the towns of Bothaville and Wesselsbron. As is the case with the rest of the Free State province, the district is predominantly a rural district with about 85% of the land being used for agriculture (Cooperative Governance and Traditional Affairs, 2020).

The municipality has twelve municipal wards.

3.3 TOPOGRAPHY AND LAND FORMS

3.3.1 Topography

Lejweleputswa is located on undulating plains and pans, low lands with hills, and plains and pans that are slightly irregular undulating plains and hills. A biome, often known as an ecosystem, is a large geographical area containing ecologically similar groups of plants, animals, and soil microbes. From west to east, Lejweleputswa lies in the Grassland Biome. Kimberly thorn bushveld dry clay Highveld grassland, dry sandy Highveld grassland, and damp cool Highveld grassland make up the landscape (Lejweleputswa District Municipality, 2012).

The map below shows the topography of the district.

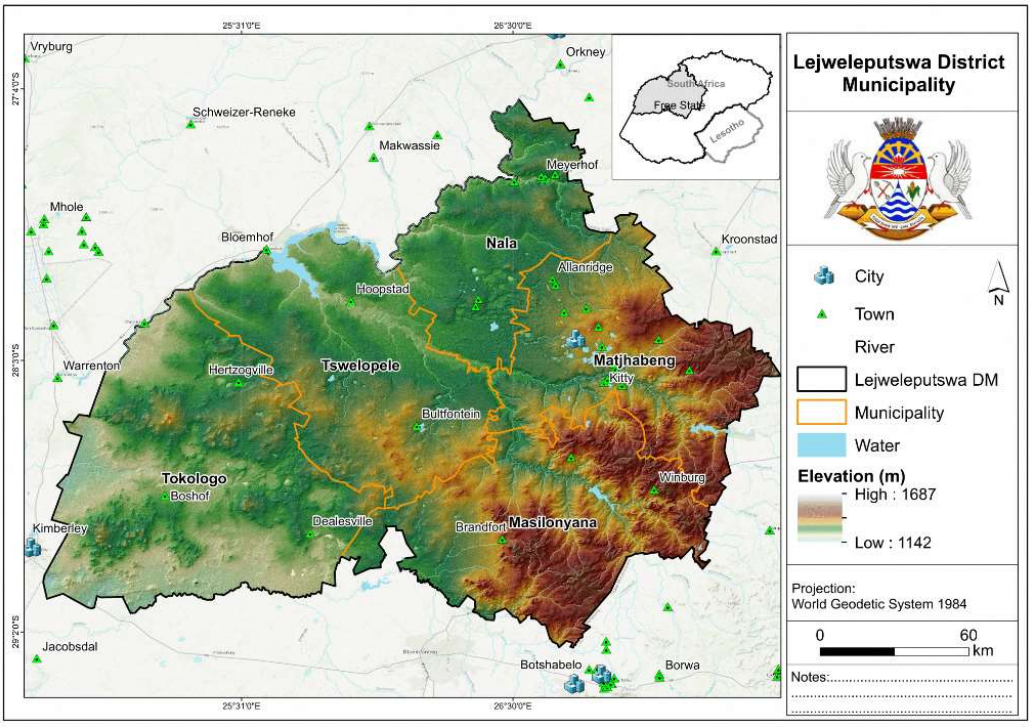

Figure 2: Topography of the Lejweleputswa District Municipality

3.3.2 Geology and Soils

The most dominating type of rock in the region is the volskrust Fm, Ecca Group of rock formation which is located mainly in the central region covering areas in Welkom, Virginia, Theunissen, Brandfort and Winburg. The second dominant type of rock formation is the Adelaide Sb group, Beaufort Grp in the Masilonyana and Matjhabeng area, followed by Madzaringwe Fm, Karoo Sp Group which has become a belt lying along the borders of both Nala and Tswelopele and the North West province. The other type of rock is the Prince Albert fm, Ecca Grp located in the Tokologo area beyond Boshof. All planning must consider the strategic importance and handicaps that may be presented by these types of geological formations prevalent throughout the district (Lejweleputswa District Municipality, 2012).

The geology in the Lejweleputswa district consists mostly of shale, mudstone, sedimentary and dolomite.

- Tokologo 5% sandy clay soils
- Tswelopele 15% loam-sandy clay soils and 28% sandy clay soils
- Nala 45% sandy clay soils
- Matjhabeng 45% loam-sandy clay soils and 25% sandy clay soils
- Masilonyana 75% loam-sandy clay soils and 63% sandy clay soils.

Clay percentages towards the western parts of Lejweleputswa are less than 15% and increase to the east between 15% and 35%. Masilonyana has more than 35% clay percentage (Lejweleputswa District Municipality, 2012).

The map below shows the geology of the district.

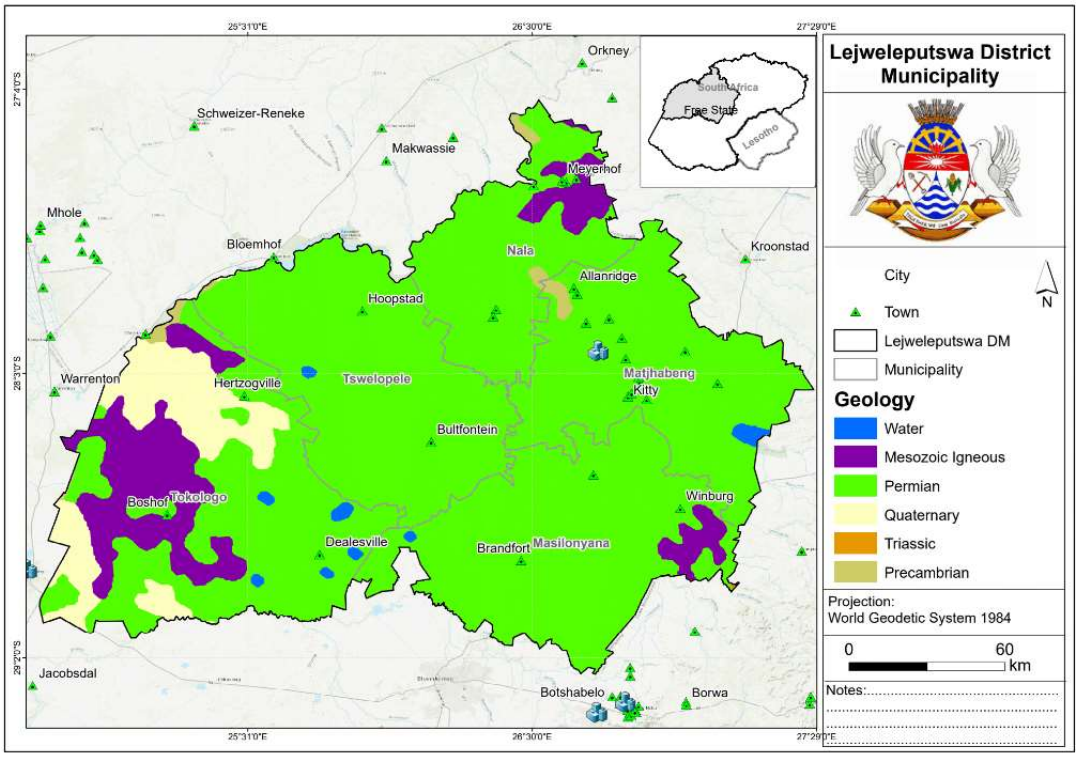

Figure 3: Geology of the Lejweleputswa District Municipality

3.3.3 Vegetation

The central Free State grassland, which dominates the centre half of the district, including Matjhabeng and Tswelopele, as well as a stretch of Masilonyana, is the most dominant cover type of vegetation. The Kimberley thornveld, which also covers parts of Tokologo and Kimberley as well as other parts of the Free State region, is the second dominating cover. The Vaal Vet Sandy grassland, which is similarly common in the central region but extends to the Tokologo and Tswelopele districts of Hoopstad and Hertzogville, is the third grass species that cover the area (Lejweleputswa District Municipality, 2012).

The maps below show the vegetation and biomes of the district.

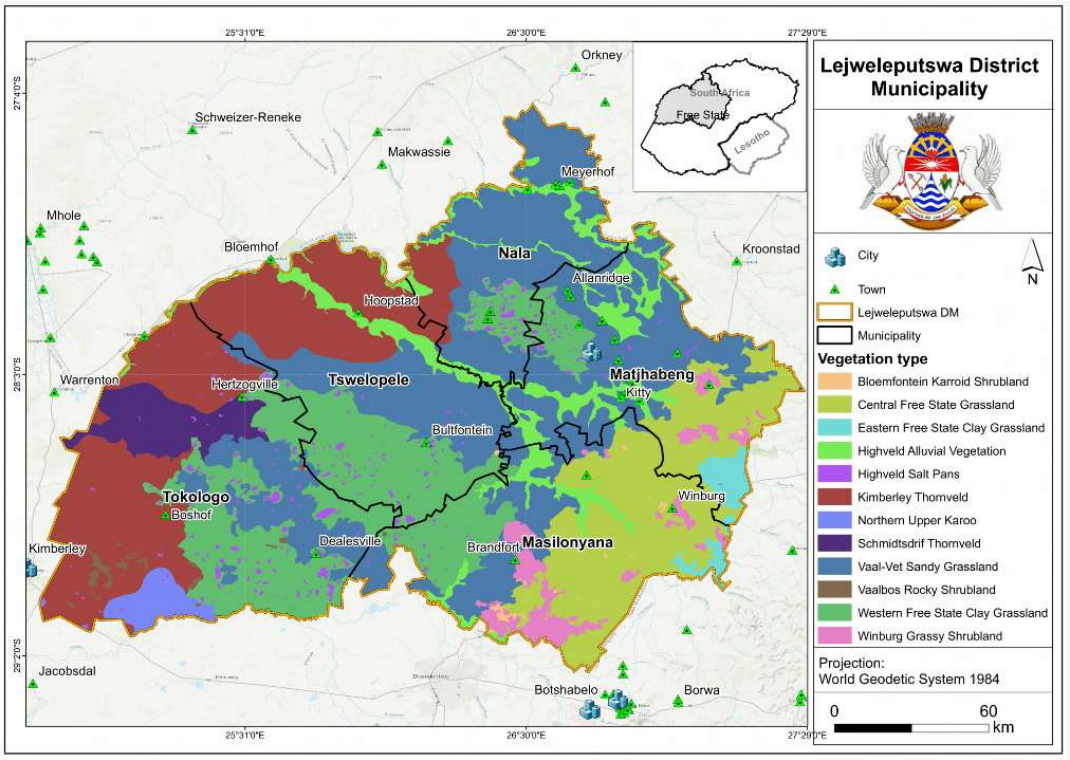

Figure 4: Vegetation in the Lejweleputswa District Municipality

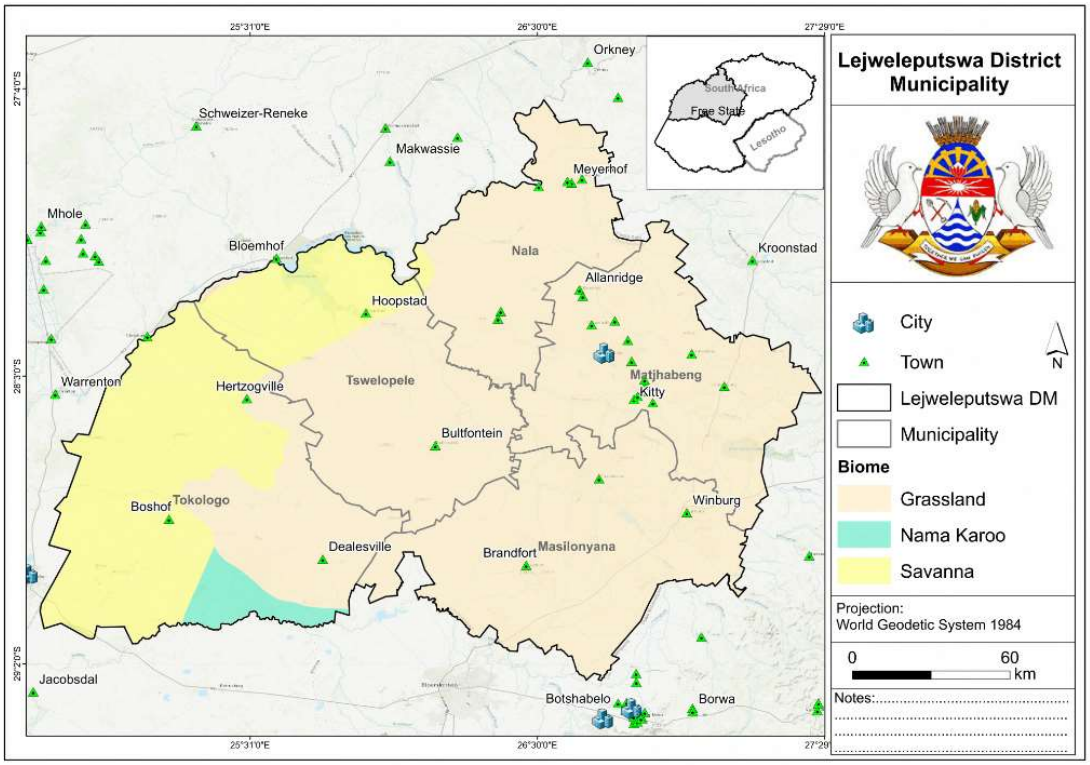

Figure 5: Biomes in the Lejweleputswa District Municipality

3.3.4 Rivers

Water is provided to Lejweleputswa via rivers that pass through the District Municipality. In Lejweleputswa, the Vaal, Modder, Vals, Sand, and Vet Rivers are vital sources of water. Bloemhof, Erfenis, and Allemanskraal Dams offer drinking water to the District Municipality's rural towns, communities, and farmers (Lejweleputswa District Municipality, 2021a).

3.3.5 Wetlands

Wetlands occupy 37 304.9 ha (5.7%) of Lejweleputswa's total land area. Many ecological aqua zones exist in the District Municipality, which protect endangered vegetation and water species. The Ecological Support Area around the Agri Park in Wesselsbron is characterized by primarily aqua environment and fauna. Protected and conservation areas can be found throughout the Lejweleputswa District Municipality, with the Bloemhof, Erfenis, and Allemanskraal Dams being particularly notable (Lejweleputswa District Municipality, 2021a).

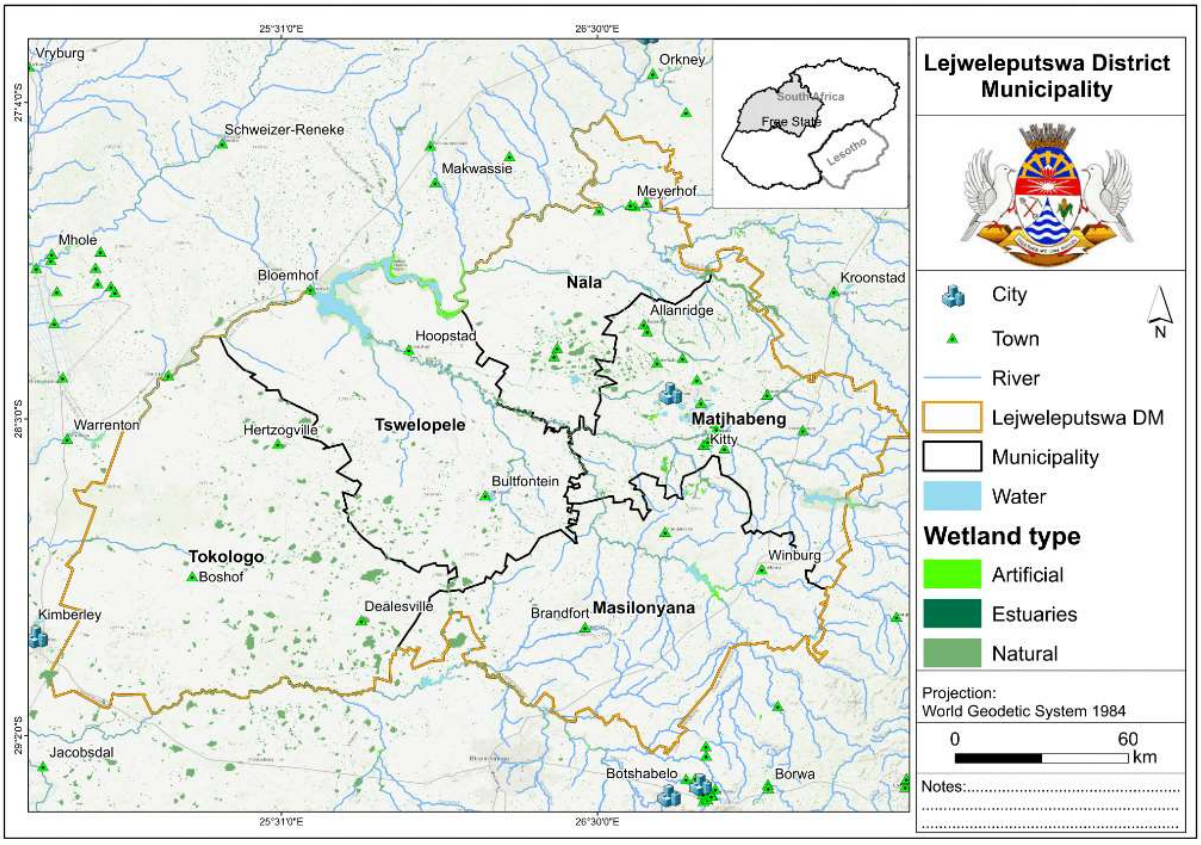

Figure 6: Rivers and wetlands in the Lejweleputswa District Municipality

3.3.6 Rainfall and temperature

The Lejweleputswa district municipality is located in South Africa's summer rainfall belt. It receives 400mm to 550mm of annual rainfall on average, with the east section having the higher average when compared to the west. The district's average daily temperature ranges from 7 to 26 degrees Celsius, with the western region seeing warmer temperatures than the eastern. It is also characterized by bitterly cold winters (Lejweleputswa District Municipality, 2021a).

The map below shows the rainfall pattern in Lejweleputswa District Municipality.

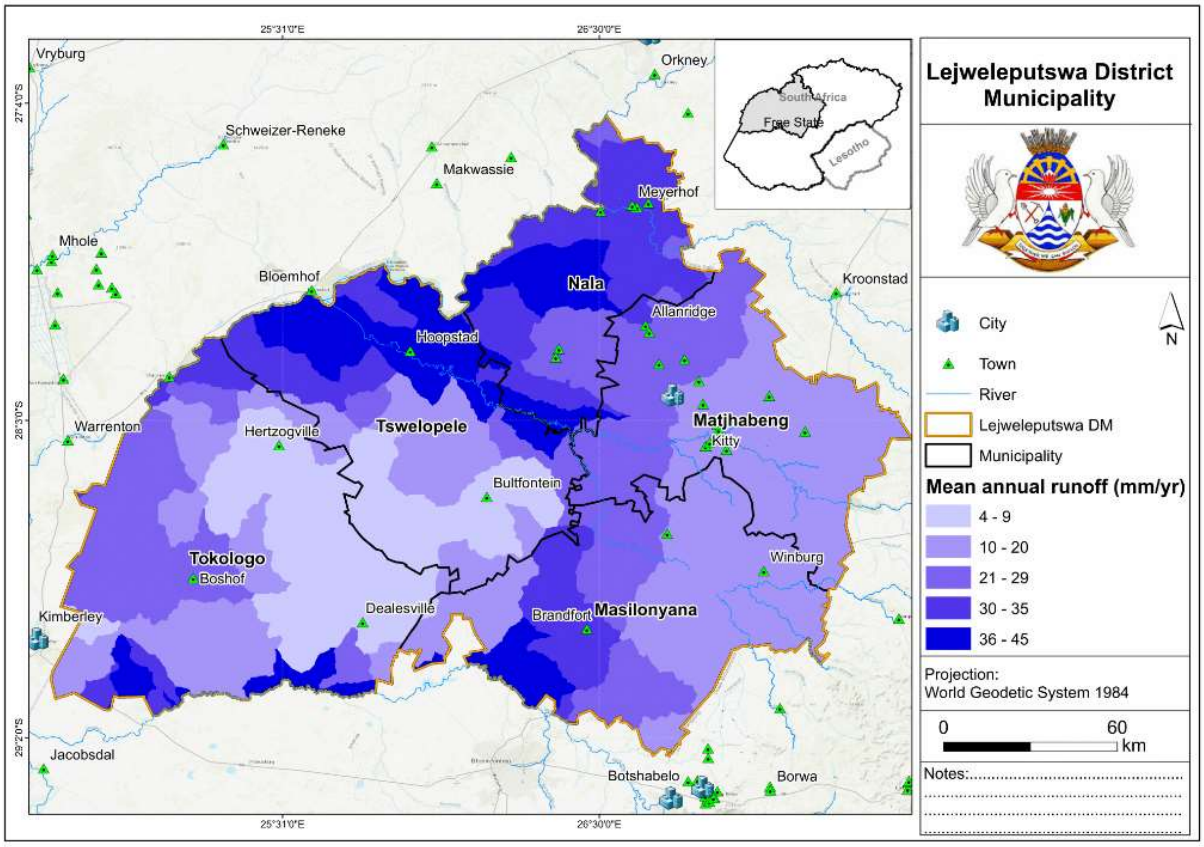

Figure 7: Mean annual runoff in mm/year in the Lejweleputswa District Municipality

3.3.7 Protected Areas

Overall, 47% of Lejweleputswa is designated as a natural habitat. The Bloemhof Dam Nature Reserve (632ha) and the Sandveld Nature Reserve (24 883.5ha) are the two-formal land-based protected areas in the District Municipality (Lejweleputswa District Municipality, 2021a).

The map below shows the protected areas within the district.

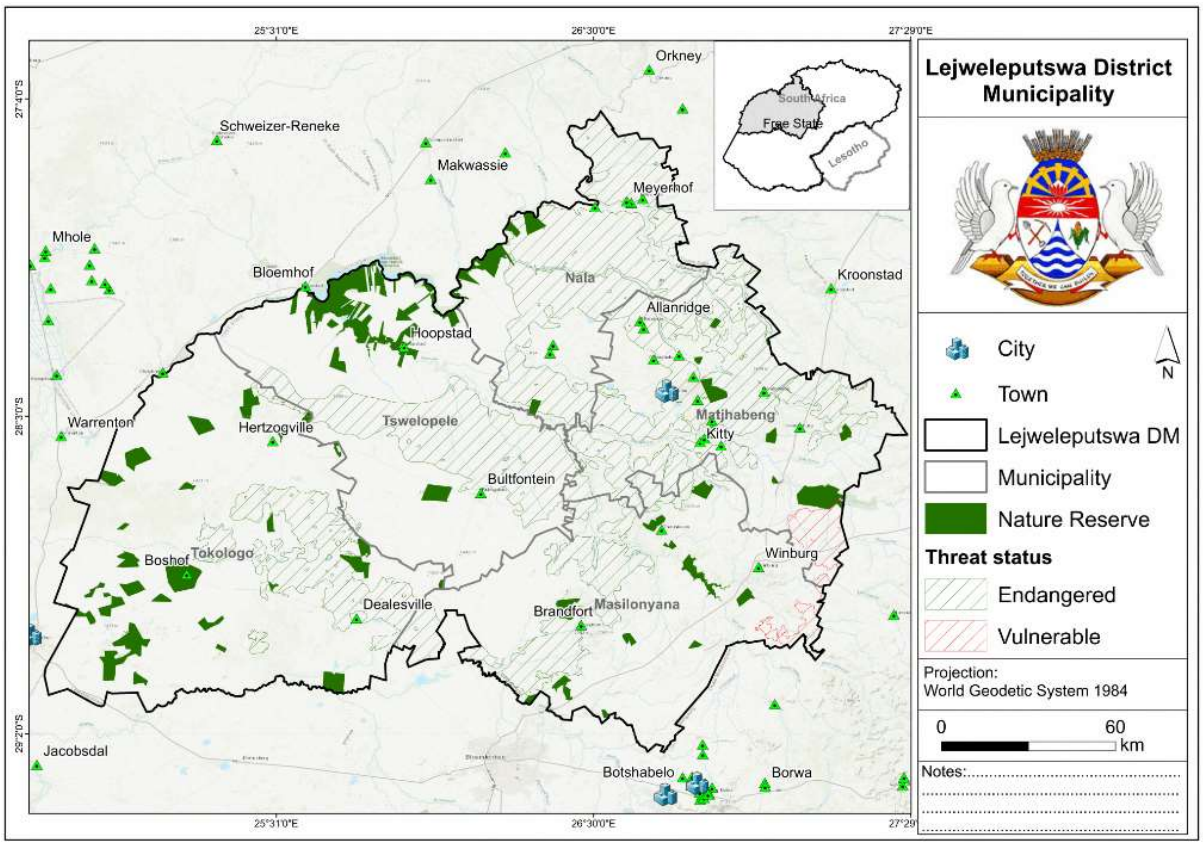

Figure 8: Protected areas in the Lejweleputswa District Municipality

4 SOCIAL AND ECONOMIC DEVELOPMENT CONTEXT

4.1 SOCIO ECONOMIC ENVIRONMENT

4.1.1 Population Profile

The Lejweleputswa District municipality had a population of 624 746 in 2011 and increased to 646 920 in 2016. The highest population was in the Matjhabeng Local Municipality with a population of 407 020 in 2011 and 429 113 in 2016. Tokologo Local Municipality accounted for the lowest population of 47 625 in 2011 and 47 373 in 2016 (Stats SA, 2018).

Table 1: The population of the Lejweleputswa District Municipality in 2011 and 2016
Source: Stats SA (2018)

Local Municipality	2011	2016	Growth Rate (%)
Masilonyana	59 895	62 770	1,1
Tokologo	28 986	29 149	0,1
Tswelopele	47 625	47 373	-0,1
Matjhabeng	407 020	429 113	1,2

Nala	81 220	78 515	-0,8
Lejweleputswa	**624 746**	**646 920**	**0,8**

With an annual population growth rate of 1.5%, the district has a population of 634 462 in 2019. This is 22 % of the total population of the Free State Province (Cooperative Governance and Traditional Affairs, 2020).

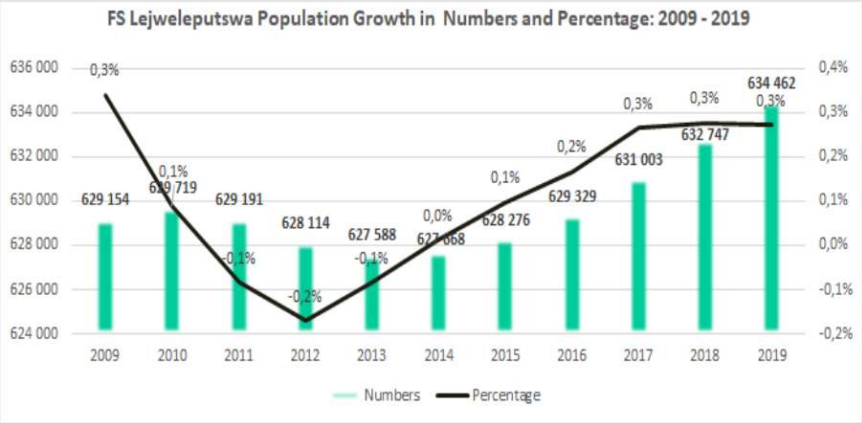

Figure 9: Lejweleputswa District Municipality population growth from 2009-2019
Source: Cooperative Governance and Traditional Affairs (2020)

4.1.2 Population by race

The Lejweleputswa District Municipality had the largest population of Africans, accounting for 89.45% of the population in 2016, followed by the White population, making up 8.4% of the population. The Coloured population accounted for 1.9%., while the Asian population was 0.3% in the same year (Stats SA, 2018).

The trend was similar in the local municipalities. The highest African population was in the Tswelopele and Nala Local Municipalities, making up 92%. The highest White population was in the Masilonyana Local Municipality, making up 9,8%. The Coloured population was more concentrated (2.4%) in the Matjhabeng Local Municipality, while the Asian population remained at less than 0.4% (Stats SA, 2018).

Table 2: The population of the Lejweleputswa District Municipality by race in 2016
Source: Stats SA (2018)

Municipality	**African**		**Coloured**		**Asian**		**White**	
	Number	**%**	**Number**	**%**	**Number**	**%**	**Number**	**%**
Lejweleputswa	578 586	89,4	12 291	1,9	1 777	0,3	54 266	8,4
Masilonyana	55 906	89,1	544	0,9	141	0,2	6 179	9,8
Tokologo	25 321	86,9	1 074	3,7	24	0,1	2 728	9,4
Tswelopele	43 662	92,2	337	0,7	99	0,2	3 274	6,9
Matjhabeng	381 335	88,9	10 112	2,4	1 204	0,3	36 462	8,5
Nala	72 361	92,2	223	0,3	309	0,4	5 622	7,2

4.1.3 Population by age and gender

Females account for 50.31% (319 172) of the population in Lejweleputswa District Municipality, while males account for 49.69% (315 291). The district's median age is 27 years, slightly higher than the Free State's number of 26 years and nearly 10% more than the national average of 25 years (Cooperative Governance and Traditional Affairs, 2020).

With 178 111 people (28.07%) of the total population, the young working age group (25-44 years) has the biggest percentage of the population. With a total share of 27.52%, the young children (0-14 years) age category is the second most populous, followed by the senior working age (45-64 years) age category with 21.20%t. With only 48 508 persons (7.65%) in the retired / old age (65 years and older) age category, it is the age group with the least number of people (Cooperative Governance and Traditional Affairs, 2020).

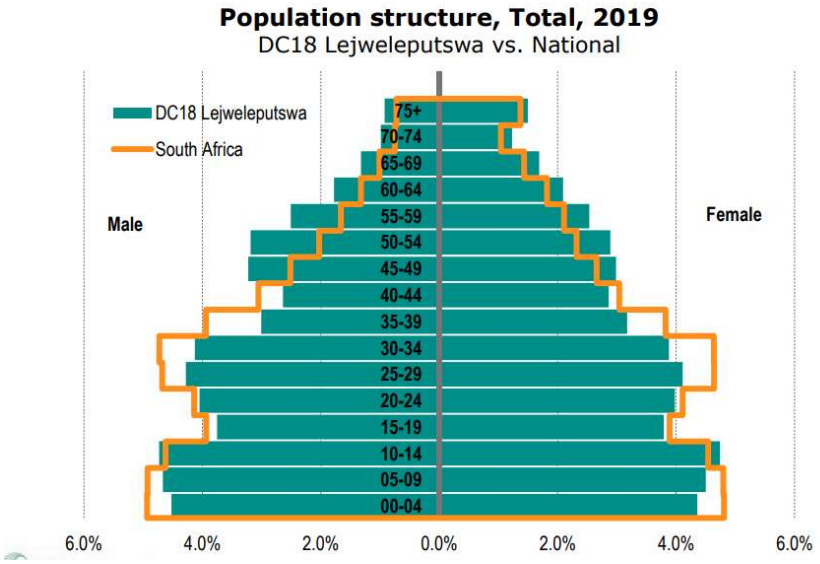

Figure 10: The population structure of the Lejweleputswa District Municipality in 2019
Source: Cooperative Governance and Traditional Affairs (2020)

4.1.4 Household size

The district has 229 267 households in 2019, with a population density of 20.1 people per square kilometer. According to the Community Survey, there are 862 households with children and 85 898 (39.4%) households with women (Cooperative Governance and Traditional Affairs, 2020). The average household size decreased from 3.4 in 2011 and 3.0 in 2016 (Stats SA, 2018).

4.1.5 Population density

The latest (2020) population statistics from the NASA Socio economic Data and Applications centre show that the population density of the district is low (0-500 people per square kilometre) across all the municipalities. According to the map below, the most densely populated area is in the Matjabeng Local Municipality with a density of 510-1 800 people per square kilometre, as seen from the map below.

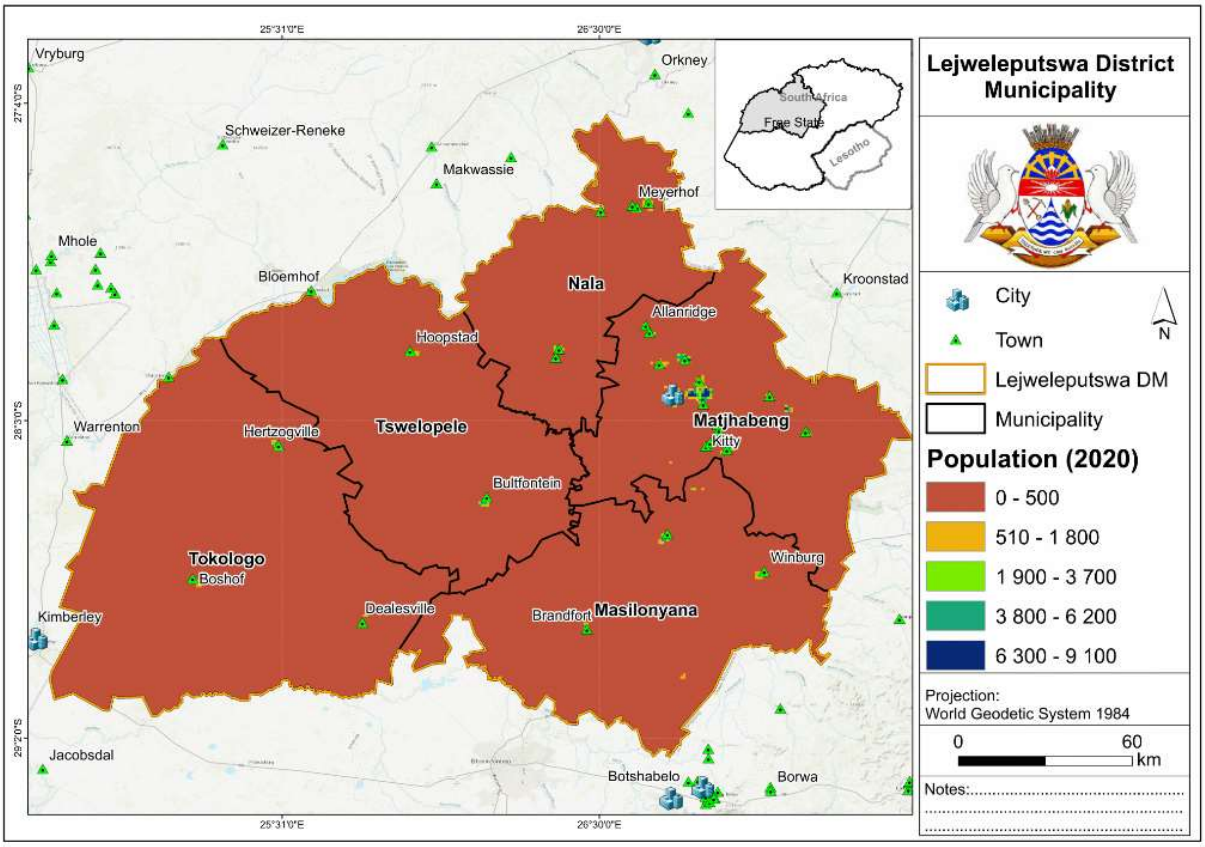

Figure 11: Population density in the Lejweleputswa District Municipality in 2020

4.1.6 Health and Disabilities

The Lejweleputswa District Municipality has 43 primary healthcare (PHC) facilities. According to the District Health Plan for 2019/2020 to 2021/2022, there are 5 district hospitals. The Tswelopele LM, Masilonyana LM, and the Nala LM each have 1 district hospital while Matjhabeng LM houses 2. Most clinics are in the Matjhabeng LM (Cooperative Governance and Traditional Affairs, 2020).

For people aged 25 to 64, HIV/AIDS is the main cause of death, followed by tuberculosis (15.2%) and lower respiratory diseases (14.9%). Antiretroviral medication, prevention of mother-to-child transmission, condom distribution, and medical male circumcision have all helped to reduce AIDS mortality. For females aged 15 to 49, the major causes of mortality were hypertension in pregnancy (28.0%) and indirect maternal (27.0%). The vaccination rate is 65%, and the Maternal Mortality Ratio is 95.2 per 100,000 live births. The highest mortality ratios were found in Nala local municipality and

Matjhabeng local municipality, with 139.1 and 102.8, respectively (Cooperative Governance and Traditional Affairs, 2020).

In the district, there are 98 310 HIV-positive people, with 10.5% of them being young mothers, up from 80 077 in 2008. HIV estimates in the district fell slightly from 80 517 to 79 384 people between 2010 and 2012. Worryingly, the HIV prevalence was severe amongst women aged 30 to 34 and males aged 35 to 39 years, according to Statistics South Africa's 2017 midyear population estimates. The Matjhabeng local municipality ranked first in the district for HIV prevalence and AIDS fatalities, accounting for 60% of all cases (Cooperative Governance and Traditional Affairs, 2020).

According to the Stats SA 2016 Community Survey, the Lejweleputswa DM had 11.4% of the population with disabilities. The district had the 11.7% of disabilities amongst Blacks, 6.5% amongst the Coloured population, 4.4% amongst Indians/Asians and 9.7% among the White population. The age group with the highest disability is among the elderly over 85 years, and they make up 72% of the population (Stats SA, 2018).

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4.2 EDUCATION, EMPLOYMENT AND INCOME

4.2.1 Employment

Lejweleputswa employed 142 000 people in 2019, accounting for 18.26% of total employment in the Free State Province (779 000) and 0.87% of total employment in South Africa (16.4 million). From 2009 to 2019, employment in Lejweleputswa fell by an average of 1.63 percent per year (Cooperative Governance and Traditional Affairs, 2020).

The trade industry, which employed 28 400 people in Lejweleputswa District Municipality in 2019, accounted for 20.0% of total employment in the district municipality. In comparison to the other industries, the community services industry employs the second-highest number of people, with 26 400 (18.6%). The power sector employs the fewest people in Lejweleputswa District Municipality, with 1 320 (0. %), followed by the transportation sector, which employs 5 560 (3.9%) (Cooperative Governance and Traditional Affairs, 2020).

4.2.2 Formal Employment vs Informal Employment

Between 2008 and 2018, employment in both the formal and informal sectors in Lejweleputswa fell by 17 720 people. The drop was mostly caused by job losses in the mining and agricultural industries (Cooperative Governance and Traditional Affairs, 2020).

4.2.3 Unemployment

In Lejweleputswa, there were 137 000 unemployed persons in 2019, up 61 800 from 75 100 in 2009. The overall number of jobless people in Lejweleputswa is 33.17% of the total number of jobless individuals in the Free State Province (Cooperative Governance and Traditional Affairs, 2020).

According to IHS Markit Regional eXplorer version 1946 (2019), the unemployment rate in Lejweleputswa district municipality was 50.9% in 2019. Lejweleputswa is one of the province's poorest municipalities, having the highest unemployment rate. When comparing unemployment rates within the Lejweleputswa district municipality, Matjhabeng local municipality has the highest rate of 55.3%, up from 31.9 percent in 2009. The local municipality of Tokologo has the lowest unemployment rate in 2019, at 26.1% (Cooperative Governance and Traditional Affairs, 2020).

4.2.4 Household Income

The annual household income of the income group R10 000- R20 000 and R20 000- R40 000 was the highest in 2011, making up 20% of the total population, followed by 15% of the population that receives no income. 5% of the population receives an income of less than R4000 (WaziMap, no date).

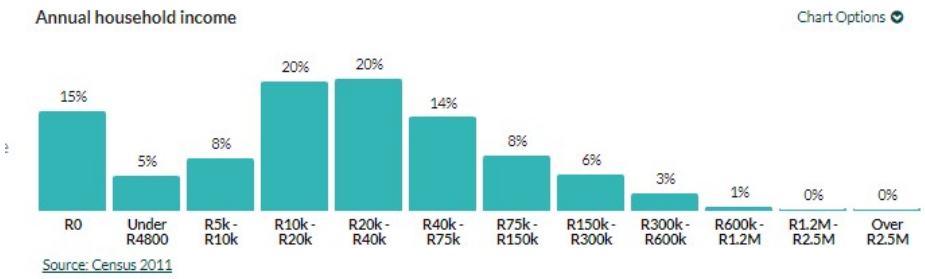


Figure 12: Annual household income of the Lejweleputswa District Municipality in 2011
Source: Wazimap (no date)

4.2.5 Human Development Index (HDI)

The Human Development Index (HDI) is a total measure of three fundamental aspects of human development: longevity, education, and a sufficient standard of living (United Nations, 2020). Over time (2009-2018), the HDI for Lejweleputswa has risen, indicating a higher level of development for the district's residents in general. Among the three assessed factors that make up the HDI, an improved HDI suggests a higher level of life. However, Matjhabeng local municipality has the highest HDI of 0.65 among district municipalities in 2018, indicating a higher standard of life than other municipalities in the district (Lejweleputswa District Municipality, 2021).

4.2.6 Gini Coefficient

The Gini coefficient is a numeric measurement tool that calculates how wealth is distributed in a population to quantify inequality in a geographic location. This computation yields a result ranging from 0% (ideal equality) to 100% (complete inequality). Inequality in Lejweleputswa has declined by 7.5% from 36 percent in 1996 to 28.5% in 2012. In 2019, the Gini coefficient was 0.62 (Cooperative Governance and Traditional Affairs, 2020).

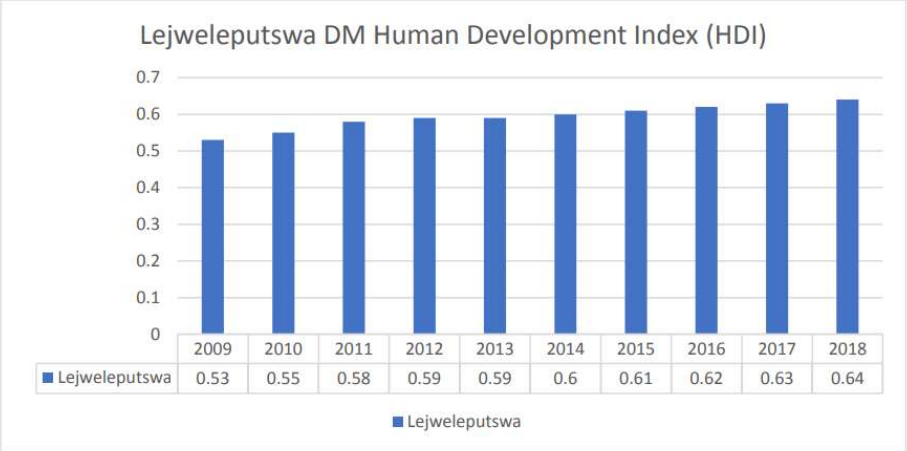


Figure 13: The Gini- coefficient of the Lejweleputswa District Municipality from 2009 to 2018
Source: Lejweleputswa District Municipality (2021)

4.2.7 Poverty

The South African Multidimensional Poverty Index (SAMPI) head count poverty rate in Lejweleputswa is 3%, down from 6% in 2011. In 2019, the Lejweleputswa District has 45.9% of its inhabitants living below the poverty line, according to IHS Markit (Global Insight). This is worse than the provincial average of 44%. Apart from poverty, the Lejweleputswa district outperformed the country on the following indicators: Household Income Growth of 6.7% (South Africa – 5.7), Increase in Informal Employment of 18.6 percent (national 17.7 percent), and Productivity Growth of 0.2% (national -0.1 percent) over a 10-year average (Cooperative Governance and Traditional Affairs, 2020).

4.2.8 Education

According to Community Survey (2016), 68% of young people completed Grade 9 or higher and 37,4% completed matric or higher. There was an increase in the number of people attending school from 70.7% in 2011 to 73.6% in 2016. However, in 2019, 18 900 persons in the Lejweleputswa district (aged 15 and older) lacked an education, while 83.9% of the population (aged 15 and older) had completed basic school. The number of persons without any schooling in the Lejweleputswa district municipality represents 19.67% of the total number of people without schooling in the province and 0.85% of the national total. In 2019, the number of persons with matric solely in Lejweleputswa district municipality was 114,000, accounting for 21.61% of the province's total number of people with matric. People with

matric and post-graduate degrees account for 16.25% of the province's population and 0.75% of the national population (Cooperative Governance and Traditional Governance Affairs, 2020).

114,000 people aged 15 and up finished secondary education, accounting for 21.6% of the provincial population. The district's matric pass rate in 2019 was 87.8%, which is comparable to the rest of the province's districts (Cooperative Governance and Traditional Affairs, 2020).

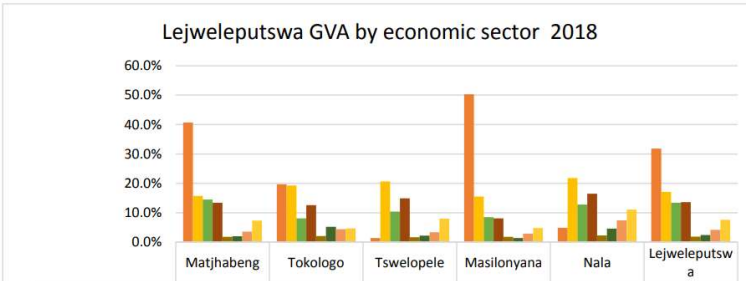
In 2018, the district had a total of 241 schools in ten circuits (19.8% of the province) and 157 321 students (22% of the province), indicating significant population density and likely school overcrowding (Cooperative Governance and Traditional Affairs, 2020).

In terms of higher education, the Lejweleputswa District Municipality has one TVET college (Goldfields TVET College). Goldfields TVET College is one of South Africa's fifty registered and approved public TVET colleges. Around the Lejweleputswa District Municipality, it runs three campuses and one satellite campus. The college offers a diverse range of business and engineering courses and programs (Cooperative Governance and Traditional Affairs, 2020).

The University of the Free State (UFS) has two satellite campuses, one located in Thabo Mofutsanyane and the other in Welkom, Lejweleputswa (Cooperative Governance and Traditional Affairs, 2020).

5. ECONOMY

The economy of Lejweleputswa thrives on mining and farming. The area contains numerous gold reserves and is located in the province's goldfields. The area is a big producer of maize and sunflower in terms of agriculture. The principal sector of the economy in the district was mining and farming, which contributed 28.6%. The secondary industry (manufacturing: 6.9%, electricity: 1%, and construction: 5.7%) contributed 13.6% of the district's GVA. The tertiary sector accounts for 57.8% of the district's GVA (trade: 22.7 percent, transportation: 4.4% finance: 9.9%, and community services: 20.8%). Finance, insurance, real estate, and business services, wholesale and retail trade, catering and lodging, and general government are all examples of tertiary sector economic activities. Mining's contribution to Lejweleputswa's economy has been diminishing in recent years for a variety of causes, with decreased world commodity prices recently fuelling the sector's downfall. The primary sector's share of GVA in Lejweleputswa has similarly decreased, indicating a shift away from the primary to the tertiary sectors. All of Lejweleputswa's municipalities are seeing considerable growth in the community services sector, which is expected to continue (Cooperative Governance and Traditional Affairs, 2020).



	Matjhabeng	Tokologo	Tswelopele	Masilonyana	Nala	Lejweleputswa
Mining	40.7%	19.7%	1.4%	50.3%	4.9%	31.8%
Community services	15.7%	19.3%	20.6%	15.5%	21.8%	17.1%
Finance	14.5%	8.1%	10.4%	8.5%	12.8%	13.4%
Trade	13.4%	12.6%	14.9%	8.1%	16.5%	13.6%
Construction	1.8%	2.1%	1.7%	1.8%	2.3%	1.9%
Electricity	2.0%	5.2%	2.2%	1.4%	4.6%	2.4%
Manufacturing	3.6%	4.4%	3.4%	2.9%	7.4%	4.2%
Transport	7.3%	4.7%	8.0%	4.8%	11.1%	7.6%

Figure 14: The Gross Value Added (GVA) of the Lejweleputswa District Municipality per economic sector
Source: Lejweleputswa District Municipality (2021)

5.1 AGRICULTURE

The Free State is known as South Africa's breadbasket, contributing a substantial amount of the country's agricultural production. Although the municipality is diverse in farming operations, maize is the main product of Lejweleputswa, and the region is also regarded as the maize capital of South Africa. Food security, employment possibilities, the economy, and providing a sound foundation for rural development are all reasons why agriculture is vital. As a result, it is critical to prevent agricultural land from being converted into urban areas. The snowball effect that this industry creates through agro-processing and tourism is an advantage, but those topics will be covered in greater depth in the other sections. Irrigation schemes are vital in agriculture because they produce results. The Free State is mostly characterized by subsistence and large-scale commercial farming (Cooperative Governance and Traditional Affairs, 2020).

Natural vegetation covers agricultural areas, which are utilized for vast agricultural operations such as indigenous plant harvesting, extensive stock farming, game farming, eco-tourism, crop cultivation, citrus, Lucerne, dates, vineyards, and intensive stock farming on pastures. Maize, grain, wheat, potatoes, soya beans, cabbage, ground nuts, carrots, Lucerne, sunflowers, and pumpkins are the most common crops and vegetables grown in the district (Cooperative Governance and Traditional Affairs, 2020).

Commercial agriculture accounts for 76 000km² or 58.8% of land use in the Free State, according to the 2017 commercial agricultural census. The province's commercial agricultural land usage consists primarily of grazing pasture (52 000km²) for cattle and game farming, and arable land (25 000km²) for crop cultivation. LDM has the third greatest proportion of grazing land (11 269.58 km² or 21.8% of total grazing land) and the highest proportion of arable land (8 137 km² or 35.6 percent of total arable land) of the province's five districts (Cooperative Governance and Traditional Affairs, 2020).

The province of the Free State has 7951 commercial farms actively engaged in the agriculture industry, making it the province with the most farm units. Mixed farming was the most common type of farming, accounting for 3 888 farms and 48.9% of the total in the province. Following that, animal farming accounts for 2 138 of the district's farms (26.9%). 1 710 farms (21,5%) grow cereals and other

crops, while the remaining 215 farms focus on horticulture, agricultural services, and fertilizer production (2.7%). With 2069 farm units, Lejweleputswa has the second biggest number of farms in the province. This signifies that the district has agricultural potential (Cooperative Governance and Traditional Affairs, 2020).

In 2017, the province's commercial agriculture business generated R46,9 billion in revenue. Mixed farming contributed the most to total revenue (R25,4 billion, or 54.2%), followed by livestock farming (R11,2 billion, or 23.9%), and growing grains and other crops (R11,2 billion, or 23.9. With R11,7 billion (24.9 percent of the provincial total), Lejweleputswa was the province's second biggest contributor district (Cooperative Governance and Traditional Affairs, 2020).

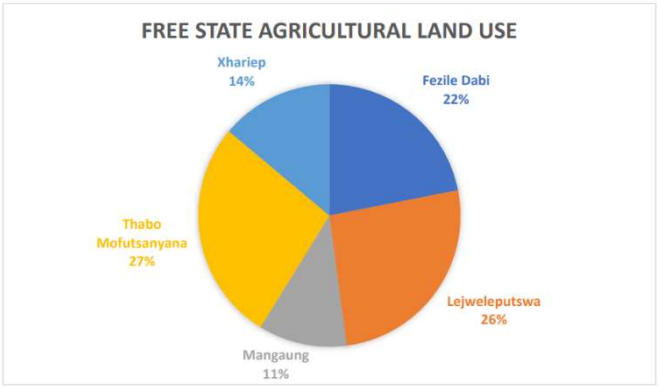


Figure 15: Agricultural land use in the Free State
Source: Lejweleputswa District Municipality (2021)

5.2 MINING

In the district, mining is the main source of income. The mining activity in the Lejweleputswa district is concentrated in the local municipalities of Matjhabeng and Masilonyana. Gold and diamond are the minerals that are mined. These are valuable metals having a wide range of applications, primarily in the jewellery industry. Matjhabeng is known for its gold mining. In specific portions of Matjhabeng and Nala local municipalities, two significant gold reserves with a 20-year life period still remain (IDP 2020-2021). There is significant potential for mining low grade coal in Matjhabeng and Nala local municipalities.

There is some lower value mining potential in salt in the municipalities of Matjhabeng, Masilonyana, Tswelopele, and Tokologo. There are also gypsum fields in Tokologo. Outcrops of Diamond Kimberlite can be found near Boshoff and Theunissen. Mineral resources abound throughout the district. Lejweleputswa (previously the Goldfields) is a 400-kilometer-long gold reef that runs through Gauteng and the Free State. The Free State Consolidated Goldfields, with a mining area of 32 918 ha, is the largest gold-mining complex. The municipalities of Welkom, Virginia, and Odendalsrus operate 15 gold mines in the region. Gold mining is prevalent in Matjhabeng, with two significant gold reserves remaining in some areas of Matjhabeng and Nala Local Municipalities with an estimated 20-year life expectancy. The following minerals have substantial mining potential in Lejweleputswa:

- Low-grade coal in Matjhabeng and Nala.
- Salt in the municipalities of Matjhabeng, Masilonyana, Tswelopele, and Tokologo.

- Gypsum fields in Tokologo.
- Diamond Kimberlite outcrops in Boshof and Theunissen (Cooperative Governance and Traditional Affairs, 2020).

5.3 MANUFACTURING

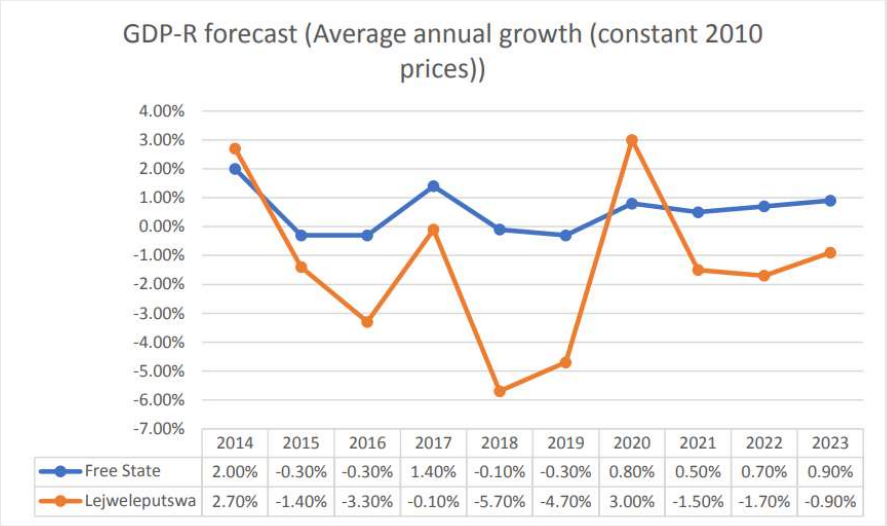
The manufacturing industry accounts for 6.9% of the district's GVA and is not a dominating sector. Manufacturing in the Matjhabeng local municipality is primarily for the mining industry, and it can be found in the towns of Allanridge, Odendaalsrus, Welkom, and Virginia to a lesser extent. Welkom has been designated as a high-value differentiated products (fuel, rubber, plastics, electronics) specialized economic node with above-average potential (Cooperative Governance and Traditional Affairs, 2020).

The Harmony Jewellery School, based in Virginia, teaches students how to design jewellery. The school will serve as the nucleus for a jewellery beneficiation center. Farm machinery and equipment, leather tanning and finishing, gold jewellery and beneficiation, and petrochemicals are among the sectors sought for foreign direct investment by the Free State Development (FDC). Farmers in the area will have connections with the farm equipment manufacturing businesses (Cooperative Governance and Traditional Affairs, 2020).

Another economic driver in the Lejweleputswa district is the production of sulfuric acid from gold ore, as well as gold mining. Bothaville's Biofuel Plant manufactures bio-ethanol from maize and sorghum (Cooperative Governance and Traditional Affairs, 2020).

5.4 GROSS DOMESTIC PRODUCT

The graph below shows the GDP growth rates for Lejweleputswa from 2014 to 2023 in relation to the Free State. It should be noted that from 2014 to 2019, the province's GDP growth rate fluctuated gradually. The province's GDP growth rate is expected to increase somewhat from 0.5% to 0.9% from 2021 to 2023, which is promising. From 2014 to 2019, it can also be seen that Lejweleputswa has followed the Free State trend, albeit with sharper chevalier oscillations. Similarly, from 2021 to 2023, the GDP growth rate is expected to gradually increase from -1.5% to -0.9%. These figures are concerning because all of the projected growth rates are lower than the predicted growth rate of 5%.



	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Free State	2.00%	-0.30%	-0.30%	1.40%	-0.10%	-0.30%	0.80%	0.50%	0.70%	0.90%
Lejweleputswa	2.70%	-1.40%	-3.30%	-0.10%	-5.70%	-4.70%	3.00%	-1.50%	-1.70%	-0.90%

Figure 16: Forecasted annual Growth Domestic Product (GDP) of the Lejweleputswa District Municipality
Source: Lejweleputswa District Municipality (2021)

6. INFRASTRUCTURE AND SERVICES

6.1 ELECTRICITY

In 2016, all of the district's communities have access to electricity in excess of 85.6%. 79% had in-house prepaid meters, 15% had in-house conventional meters, 4% had no access to power, 2% had electricity from other sources that were not paid for, and 1% had electricity from other sources that were paid for. By 2018, the Lejweleputswa district municipality had 3 720 (1.95%) households with electricity solely for lighting, 175 000 (91.56%) households with electricity for lighting and other purposes, and 12 400 (6.50%) households with no electricity (Cooperative Governance and Traditional Affairs, 2020).

High voltage power lines are running from the Northern Cape and intersecting Matjhabeng, as indicated in the map below.

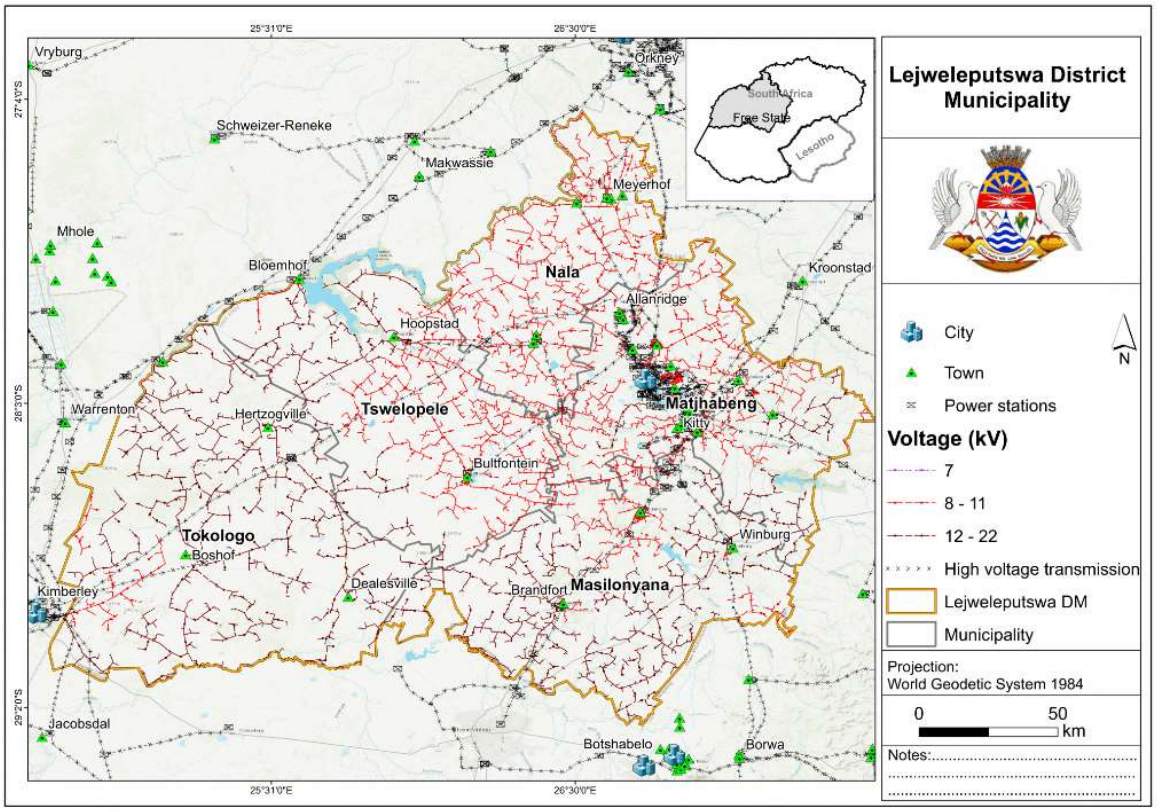


Figure 17: Electricity infrastructure in the Lejweleputswa District Municipality

6.2 ROAD NETWORK

The Free State has a competitive advantage due to its central location and the fact that huge volumes of freight flow through its surface. The N1 (Johannesburg to Cape Town through Ventersburg and Winburg) and the N5 (which connects the N1 at Winburg with the N3 at Harrismith) travel through the district, however, this is mostly dependent on some value-adding to freight and transport management systems that connect Bloemfontein and Durban. The R64, which runs from Bloemfontein to Kimberley via Dealesville and Boshof and via Lejweleputswa district municipality, is a busy manganese transit corridor. The existing railway network in Lejweleputswa District Municipality is shown in this spatial depiction of transportation infrastructure (Cooperative Governance and Traditional Affairs, 2020).

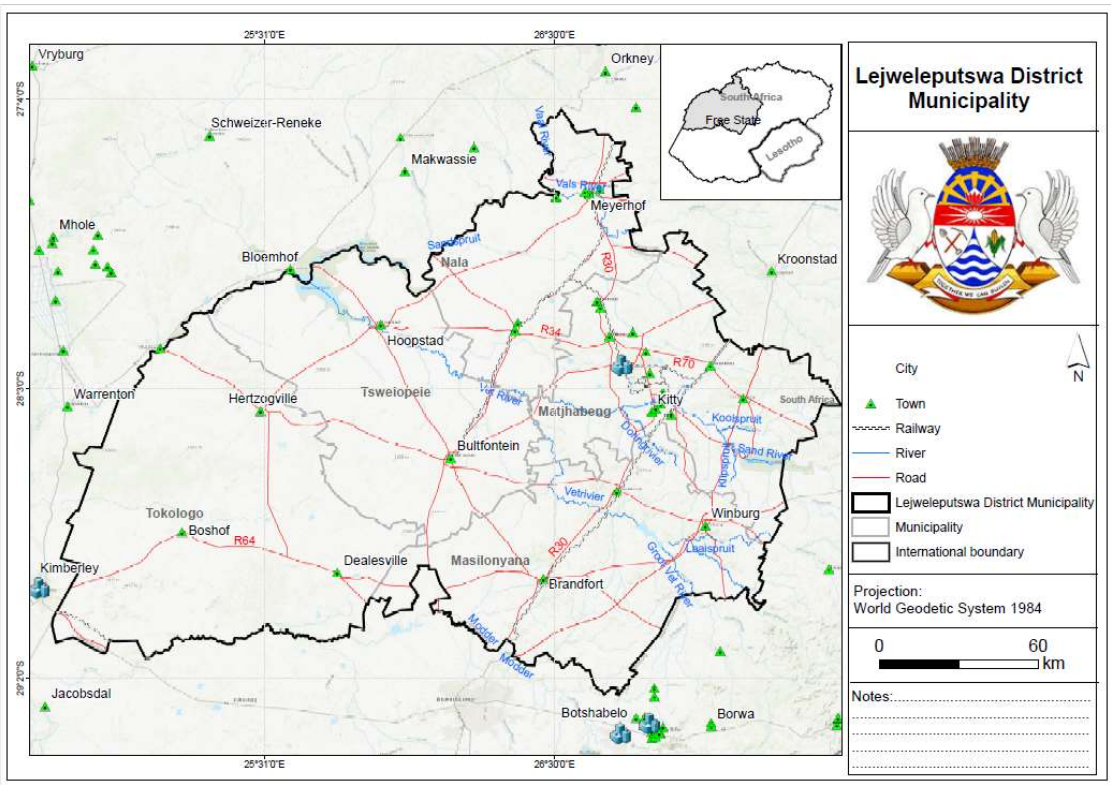


Figure 18: Transport infrastructure in the Lejweleputswa District Municipality

6.3 WATER SUPPLY

According to the 2016 Community Survey, 95.3% of homes had access to safe drinking water. By 2018, the Lejweleputswa District Municipality had 92 900 (48.66%) homes with piped water within the dwelling, 84 500 (44.25%) households with piped water in the yard, and 1 870 (0.98%) households without formal piped water. Matjhabeng local municipality in Lejweleputswa district municipality has the highest number of houses with piped water inside the dwelling, with 74 600. (80.24%). Tokologo local municipality, with a total of 1 690 (1.82%) dwellings, has the lowest number of houses with piped water inside the dwelling (Cooperative Governance and Traditional Affairs, 2020).

Major dams and reservoirs in the district include:

- The Bloemhof dam is located on the western side of the district.
- The Alemanskraal dam is located on the eastern side of the district.
- The Sandveld dam is important for the supply of the irrigation scheme (Lejweleputswa District Municipality, 2021a).

Constructed permanent waterways, e.g., irrigation canals, storm water trenches in the district include:

- Irrigation canals towards the centre of the district, feeding on the Vet and Sand River.
- There is an irrigation canal south of Boshof, feeding on the Vaalhartz irrigation scheme of the Northern Cape (Lejweleputswa District Municipality, 2021).

6.4 SANITATION

According to the Community Survey, in 2016, 84.2% of homes had access to either flush or chemical toilet facilities. 1,5% did not have access to any bathroom facilities, whereas 9% had access to pit latrines, 3% still used bucket toilets, and 2% used other unidentified toilet facilities. By 2018, the Lejweleputswa district municipality had 160 000 flush toilets (84.07% of total households), 5 310 Ventilation Improved Pit (VIP) toilets (2.78 % of total households), and 13 000 pit toilets (6.83%). Matjhabeng local municipality, which has 113 000 flush toilets, is the municipality in Lejweleputswa with the most (70.41%). Tokologo local municipality, with a total of 2 910 (1.81%) flush toilets, is the municipality with the fewest (Cooperative Governance and Traditional Affairs, 2020).

6.5 SOLID WASTE REMOVAL

According to IHS Markit, Lejweleputswa district municipality had a total of 151 000 (79.31%) households that had their refuse removed weekly by the authority, 9 040 (4.74%) households that had their refuse removed less frequently than weekly by the authority, and 18 600 (9.73%) households that had to remove their refuse themselves in 2018. The decrease is due to a decrease in the number of households (Lejweleputswa District Municipality, 2021a).

Matjhabeng local municipality in Lejweleputswa has the biggest number of households where garbage is collected weekly by the authorities, with 108 000 (71.36%) of Lejweleputswa's households. Tokologo Local Municipality, with 3 890 households (or 2.57%) of the total households where garbage is removed weekly by the authority within the district municipality), has the lowest number of households where refuse is removed weekly by the authority (Lejweleputswa District Municipality, 2021a).

When looking at the number of houses in Lejweleputswa District Municipality without formal trash collection, it can be seen that in 2008 there were 30 300 households without formal refuse collection, which increased annually at 0.05% per year to 30 500 in 2018. Between 2008 and 2018, the total number of households in Lejweleputswa District Municipality expanded at an average annual rate of 0.38 percent, which is greater than the yearly increase of 2.13% throughout South Africa (Lejweleputswa District Municipality, 2021a).

7 HUMAN SETTLEMENTS

According to the Community Survey (2016), 76% of households live in formal houses that are fully owned and paid up (61 percent), whereas 5% live in backyard flats and 1% live in apartments. 15.7% of the population lives in makeshift shelters (shacks) (Cooperative Governance and Traditional Affairs, 2020).

8 LAND USE

The maize triangle passes through Nala Local Municipality, making it a key agricultural area. Because of its strategic location within the maize triangle, the municipality is characterized by the presence of commercial farms (Lejweleputswa District Municipality, 2021b).

Primary activities dominate the municipality in Matjhabeng Local Municipality, with agriculture accounting for 34.91% of land usage and mining accounting for 1.5% of land use (Lejweleputswa District Municipality, 2021b).

Theunissen, Masilo, Brandfort, Majwemasweu, Soutpan, Ikgomotseng, Verkeerdevlei, Tshepong, Winburg, and Makeleketla are the urban centers that make up the Masilonyana Local Municipality. The administrative center is located in Theunissen. The N1 and the ZR Mahabene toll route (R30/34 and sections of R730 connecting Welkom and Kroonstad) pass through the municipality (Lejweleputswa District Municipality, 2021b).

Boshof, the administrative town, Dealsville, and Hertzogville are the three small rural settlements that make up Tokologo Local Municipality. The towns are small and have a small population, with a large proportion of the people living in cities. Tokologo's rural parts are defined by the presence of commercial farms (Lejweleputswa District Municipality, 2021b).

Tswelopele Local Municipality contains only two towns, Bultfontein and Hoopstad, because 77.7% of the municipality is still undeveloped. The Sandveld Nature Reserve, which encompasses 17.41 km², is the only formal protected area (Lejweleputswa District Municipality, 2021b).

9 SETTLEMENT PATTERN

Winburg, Theunissen, Brandfort, Verkeerdevlei, and Soutpan are part of the Masilonyana Local Municipality. There are no large urban centers, and it is 45 kilometers to Bloemfontein and 58 kilometers to Welkom from Theunissen. The N1 toll gate, as well as the N1 road that runs through the area, benefit the municipality. It is primarily a rural region with no big cities. Crop and livestock production are agricultural activities that support the economy. In addition, there are large mining operations in the area. The Erfenis Dam is the area's primary water source. The Soetdoring Nature Reserve in Soutpan is a tourist attraction in the area (Lejweleputswa District Municipality, 2021a).

Hertzogville, Dealesville, and Boshof are the towns that make up Tokologo Local Municipality. The municipality's spatial feature is notable for having large stretches of land that are largely used for agriculture. Maize and wheat cropping is the most common agricultural activity there. There are additional untapped mineral reserves in the vicinity. Game farming consumes the majority of the accessible land in the area. Boshof, a conservation area, must also be taken into account when planning. The R64 connects the towns with Bloemfontein, and the R708 connects the local municipality and district with North West province and Christiana town (Lejweleputswa District Municipality, 2021a).

Hoopstad and Bultfontein are the two towns that make up Tswelopele Local Municipality. The Sandveld Nature Reserve in Hoopstad is one of the greatest tourist attraction reserves in the Free State. The neighborhood is one of the districts that has the potential to attract tourists (Lejweleputswa District Municipality, 2021a).

Virginia, Welkom, Odendaalsrus, and Hennenman are among the mining communities that make up Matjhabeng Local Municipality. The remaining towns served as support service centers for the area's rural areas. Ventersburg and Allanridge are their names. Mining and residential structures dominate the Matjhabeng Local Municipality (Lejweleputswa District Municipality, 2021a).

Wesselsbron and Bothaville are two urban areas in the Nala Local Municipality. It mostly consists of an agricultural area dedicated to crop production. The Vet River provides an advantage for an irrigation project in the area. On the banks of the Vaal River, recreational facilities have been built. It also offers the possibility of an irrigation system. The Vals River also gives a chance for irrigation schemes to be established. On the route to Orkney and Matlosana, 18 kilometers outside of Bothaville, is the Nampo, an agricultural node. The annual Nampo agricultural exhibition, which draws visitors from all over the world, is recognized as one of the best in the world. This show eventually becomes one of Nala's most important sources of revenue (Lejweleputswa District Municipality, 2021a).

10 DEVELOPMENT PRESSURES

The Lejweleputswa 2021 IDP has identified the following as development pressures:

Masilonyana Local Municipality:

- It is fundamentally a rural area with no major urban centres.
- Its rural nature could disadvantage it in terms of attracting more companies to establish branches in the areas of the municipality.

Tokologo Local Municipality:

- The municipality has a huge challenge regarding water sources and general availability of water throughout the year.

Tswelopele Local Municipality:

- No major businesses are located here.
- Spatial location is a prohibiting factor and thus may result in outmigration of potential skills in the area.

Matjhabeng Local Municipality:

- The revenue generation is very low as a result of high unemployment due to mining closures.

Nala Local Municipality:

- It is not a tourist destination and therefore cannot attract visitors in numbers.

11 INSTITUTIONAL CAPACITY

The Matjhabeng LM has the highest number of employment positions in the district with numbers hovering just below the 4000 mark. In the 2018/2019 financial year, it recorded the highest number

of employees with 3 859 positions. Tokologo LM has the least number of employment positions in the district with numbers hovering just below the 400 mark. The lowest number of employees was from 2016 to 2019 with 235 employees each year (refer to the table below) (Municipalities of South Africa, no date).

The highest vacancy rate was experienced in the Matjhabeng LM in the 2018/2019 financial year making up 40.11% of unfilled positions. The Nala LM had the least number of vacancies since 2014 with numbers hovering just below 3% of unfilled positions refer to the table below) (Municipalities of South Africa, no date).

Table 3: Employment and vacancies in the Lejweleputswa District Municipalities from 2014 to 2019
Source: Municipalities of South Africa, no date

	Employment	**2018/19**	**2017/18**	**2016/17**	**2015/16**	**2014/15**
Masilonyana LM	Total Employee Positions	660	483	746	774	729
	Total Vacant Employee Positions	193	11	149	183	184
	Total Vacancy Percentage	29.24%	2.28%	19.97%	23.64%	25.24%
Matjhabeng LM	Total Employee Positions	3 859	3 727	2 226	2 284	2 379
	Total Vacant Employee Positions	1 548	1 572	4	0	0
	Total Vacancy Percentage	40.11%	42.18%	0.18%	0.00%	0.00%
Nala LM	Total Employee Positions	540	547	565	535	488
	Total Vacant Employee Positions	3	3	3	14	0
	Total Vacancy Percentage	0.56%	0.55%	0.53%	2.62%	0.00%
Tokologo LM	Total Employee Positions	235	235	166	294	375
	Total Vacant Employee Positions	28	28	3	104	196
	Total Vacancy Percentage	11.91%	11.91%	1.81%	35.37%	52.27%
Tswelopele LM	Total Employee Positions	320	316	329	305	303
	Total Vacant Employee Positions	95	70	69	51	36

	Total Vacancy Percentage	29.69%	22.15%	20.97%	16.72%	11.88%

11.1 EMPLOYMENT AND VACANCY IN MASILONYANA LOCAL MUNICIPALITY

The Masilonyana LM has had decreasing employment positions from 2014 to 2019. In the 2014/2015 financial year, there were 729 positions, and this decreased to 660 in the 2018/2019 financial year. The vacancy rate has been high and stable hovering just below the 30% mark. The 2018/2019 vacancy rate was the highest with 29.24% of unfilled positions (refer to the table below) (Municipalities of South Africa, no date).

The Section 56 managerial positions were stable from 2014 to 2018 with 6 employees each year, this decreased by 1 position in the 2018/2019 financial year. The vacancy rate was highest in the 2016/2017 financial year with 4 unfilled positions. Managerial positions gradually increased from 2014 to 2019. In the 2014/2015 financial year, there were 24 positions, and this increased to 31 positions in the 2018/2019 financial year. The vacancy rate was highest in the 2015/2016 financial year with 13 unfilled positions (refer to the table below) (Municipalities of South Africa, no date).

The Finance and Administration Department had the highest number of employees in the 2018/2019 financial year, making up 99 positions, followed by the Water Department which had 88 positions. The Public Safety unit had the least number of positions in the 2018/2019 financial year with only 5 positions. The Environmental Protection, Health Department had no positions since 2014 (refer to the table below) (Municipalities of South Africa, no date).

Table 4: Employment and vacancy in the Masilonyana Local Municipality from 2014 to 2019
Source: Municipalities of South Africa, no date

Employment	**2018/19**	**2017/18**	**2016/17**	**2015/16**	**2014/15**
Total Employee Positions	660	483	746	774	729
Total Vacant Employee Positions	193	11	149	183	184
Total Vacancy Percentage	29.24%	2.28%	19.97%	23.64%	25.24%
Managerial Positions - S56	5	6	6	6	6
Vacant Managerial Positions-S56	1	3	4	3	3
Managerial Positions - by organogram	31	31	28	26	24
Vacant Managerial Positions - by organogram	8	8	8	13	11

Community and Social Service Positions	0	78	86	86	86
Vacant Community and Social Service Positions	0	0	0	0	0
Finance And Administration Positions	99	72	97	128	125
Vacant Finance and Administration Positions	38	0	0	31	50
Electricity Positions	22	6	16	16	16
Vacant Electricity Positions	14	0	8	7	7
Environmental Protection Positions	0	0	0	0	0
Vacant Environmental Protection Positions	0	0	0	0	0
Health Positions	0	0	0	0	0
Vacant Health Positions	5	5	5	5	5
Public Safety Positions	5	5	5	5	5
Vacant Public Safety Positions	5	5	5	5	5
Road Transport Positions	50	17	55	55	55
Vacant Road Transport Positions	33	0	38	38	38
Sport And Recreation Positions	16	16	16	16	12
Vacant Sport and Recreation Positions	0	0	0	0	0
Waste Management Positions	81	20	104	104	88
Vacant Waste Management Positions	53	0	57	57	57
Waste Water Management Positions	31	10	67	67	77
Vacant Waste Water Management Positions	0	0	18	18	18
Water Positions	83	19	39	39	39
Vacant Water Positions	46	0	0	0	0

Other Positions	237	203	227	226	196
Vacant Other Positions	0	0	16	16	0

11.2 EMPLOYMENT AND VACANCY IN MATJHABENG LOCAL MUNICIPALITY

The Matjhabeng LM had a large number of employees from 2014 to 2019 and saw a gradual increase in the same period. In the 2014/2015 financial year, there were 2 379 employees, and this increased to 3 859 employees in the 2018/2019 financial year. The vacancy rate was at its lowest from 2014 to 2017 at 0 to 0.18% but significantly jumped to over 40% from 2017 to 2019 (refer to the table below) (Municipalities of South Africa, no date).

The Section 56 managerial positions were at their highest number from 2017 to 2018 with 7 positions and decreased to by 1 position for the remaining year. The vacancy rate was low with the highest number of unfilled positions in the 2016/2017 financial year with just 4 positions. There was an increase in managerial positions from 2014 to 2019. In the 2014/2015 financial year, there were 38 positions, and this doubled to 67 positions in the 2018/2019 financial year. The vacancy rate was at 0 from 2014 to 2017 and increased to just below 24 positions in the following years (refer to the table below) (Municipalities of South Africa, no date).

The Community and Social Services Department had the highest number of positions in the 2018/2019 financial year with 773 positions, followed by the Sports and Recreation unit with 739 positions. The Finance and Administration Department had the lowest number of employees with 60 positions. The Environmental Protection, Health Department had no positions since 2014 (refer to the table below) (Municipalities of South Africa, no date).

Table 5: Employment and vacancy in the Matjhabeng Local Municipality from 2014 to 2019
Source: Municipalities of South Africa, no date

Employment	**2018/19**	**2017/18**	**2016/17**	**2015/16**	**2014/15**
Total Employee Positions	3 859	3 727	2 226	2 284	2 379
Total Vacant Employee Positions	1 548	1 572	4	0	0
Total Vacancy Percentage	40.11%	42.18%	0.18%	0.00%	0.00%
Managerial Positions - S56	6	7	7	6	6
Vacant Managerial Positions-S56	2	1	4	0	0
Managerial Positions - by organogram	67	74	53	41	38

Vacant Managerial Positions - by organogram	20	23	0	0	0
Community and Social Service Positions	773	87	68	73	77
Vacant Community and Social Service Positions	339	23	0	0	0
Finance And Administration Positions	225	571	382	411	397
Vacant Finance and Administration Positions	60	212	0	0	0
Electricity Positions	183	178	88	88	81
Vacant Electricity Positions	98	93	0	0	0
Environmental Protection Positions	0	0	0	0	0
Vacant Environmental Protection Positions	0	0	0	0	0
Health Positions	0	0	0	0	0
Vacant Health Positions	0	0	0	0	0
Public Safety Positions	503	504	297	296	461
Vacant Public Safety Positions	229	212	0	0	0
	229	212	0	0	0
Road Transport Positions	0	274	140	145	168
Vacant Road Transport Positions	0	132	0	0	0
Sport And Recreation Positions	739	739	425	441	461
Vacant Sport and Recreation Positions	231	330	0	0	0
Waste Management Positions	495	495	372	379	327
Vacant Waste Management Positions	87	140	0	0	0
Waste Water Management Positions	343	343	150	154	106
Vacant Waste Water Management Positions	175	198	0	0	0

Water Positions	322	241	144	147	144
Vacant Water Positions	196	92	0	0	0
Other Positions	203	214	100	103	113
Vacant Other Positions	111	116	0	0	0

11.3 EMPLOYMENT AND VACANCY IN THE NALA LOCAL MUNICIPALITY

The Nala LM has had increasing employment positions from 2014 to 2019. There were 488 positions in the 2014/2015 financial year, and this increased to 540 positions in the 2018/2019 financial year. The vacancy rate was low with the highest vacancy rate experienced in the 2015/2016 financial year accounting for 2.62% of unfilled positions (refer to the table below) (Municipalities of South Africa, no date).

The Section 56 managerial positions had 4 employees from 2014 to 2016 and increased to 5 positions in each of the following years. The vacancy rate was low with 2 unfilled positions for most of the years. The managerial positions were at the highest from 2016 to 2018 with 10 positions. The vacancy rate was low with 1 unfilled position for most of the years except from 2014 to 2016 (0) (refer to the table below) (Municipalities of South Africa, no date).

The Finance and Administration positions had the highest number of employees with 107 positions in the 2018/2019 financial year followed by 55 positions in the Public Safety unit. The Sports and Recreation Department had the least number of positions (3) in the 2018/2019 financial year. The Environmental Protection, Health Department had no positions since 2014 (refer to the table below) (Municipalities of South Africa, no date).

Table 6: Employment and vacancy in the Nala Local Municipality from 2014 to 2019
Source: Municipalities of South Africa, no date

Employment	**2018/19**	**2017/18**	**2016/17**	**2015/16**	**2014/15**
Total Employee Positions	540	547	565	535	488
Total Vacant Employee Positions	3	3	3	14	0
Total Vacancy Percentage	0.56%	0.55%	0.53%	2.62%	0.00%
Managerial Positions - S56	5	5	5	4	4
Vacant Managerial Positions-S56	2	2	2	1	0
Managerial Positions - by organogram	9	10	10	8	8

Vacant Managerial Positions - by organogram	1	1	1	0	0
Community and Social Service Positions	0	0	0	63	45
Vacant Community and Social Service Positions	0	0	0	2	0
Finance And Administration Positions	107	107	105	137	102
Vacant Finance and Administration Positions	0	0	0	0	0
Electricity Positions	15	16	25	35	35
Vacant Electricity Positions	0	0	0	1	0
Environmental Protection Positions	0	0	64	0	0
Vacant Environmental Protection Positions	0	0	0	0	0
Health Positions	0	0	0	0	0
Vacant Health Positions	0	0	0	0	0
Public Safety Positions	55	55	49	63	65
Vacant Public Safety Positions	0	0	0	0	0
Road Transport Positions	18	20	34	34	37
Vacant Road Transport Positions	0	0	0	2	0
Sport And Recreation Positions	3	3	3	0	0
Vacant Sport and Recreation Positions	0	0	0	0	0
Waste Management Positions	48	51	53	64	61
Vacant Waste Management Positions	0	0	0	4	0
Waste Water Management Positions	16	16	31	4	3
Vacant Waste Water Management Positions	0	0	0	3	0

Water Positions	0	0	25	102	105
Vacant Water Positions	0	0	0	1	0
Other Positions	264	264	161	21	23
Vacant Other Positions	0	0	0	0	0

11.4 EMPLOYMENT AND VACANCY IN THE TOKOLOGO LOCAL MUNICIPALITY

The Tokologo LM has had decreasing employment positions from 2014 to 2019. There were 375 employees in the 2014/2015 financial year, and this decreased to 235 employees in the 2018/2019 financial year. The highest vacancy rate was experienced in the 2015/2016 financial year with 35.37% of unfilled positions (refer to the table below) (Municipalities of South Africa, no date).

The Section 56 managerial positions remained stable at 4 positions each year from 2014 to 2019. From 2016 to 2019 there were 3 unfilled positions each year. Managerial positions decreased from 2014 to 2019. In the 2014/2015 financial year, there were 10 positions, and this decreased to 9 positions in the 2018/2019 financial year. The highest vacancy was in the 2014/2015 financial year with 6 unfilled positions (refer to the table below) (Municipalities of South Africa, no date).

The Finance and Administration Department had the highest number of positions with 60 employees in the 2018/2019 financial year followed by the Waste Management unit which had 45 positions in the same year. The Public Safety unit had the least number of positions with only 4 positions in the 2018/2019 financial year. The Environmental Protection, Health Department had no positions since 2014 (refer to the table below) (Municipalities of South Africa, no date).

Table 7: Employment and vacancy in the Tokologo Local Municipality from 2014 to 2019
Source: Municipalities of South Africa, no date

Employment	**2018/19**	**2017/18**	**2016/17**	**2015/16**	**2014/15**
Total Employee Positions	235	235	166	294	375
Total Vacant Employee Positions	28	28	3	104	196
Total Vacancy Percentage	11.91%	11.91%	1.81%	35.37%	52.27%
Managerial Positions - S56	4	4	4	4	4
Vacant Managerial Positions-S56	3	3	3	0	0
Managerial Positions - by organogram	9	9	8	11	10
Vacant Managerial Positions - by organogram	3	3	0	0	6

Community and Social Service Positions	1	1	3	11	10
Vacant Community and Social Service Positions	0	0	0	3	6
Finance And Administration Positions	60	60	59	61	93
Vacant Finance and Administration Positions	7	7	0	25	28
Electricity Positions	6	6	6	15	9
Vacant Electricity Positions	0	0	0	8	3
Environmental Protection Positions	1	1	0	0	0
Vacant Environmental Protection Positions	0	0	0	0	0
Health Positions	0	0	0	0	0
Vacant Health Positions	0	0	0	0	0
Public Safety Positions	4	4	3	14	8
Vacant Public Safety Positions	0	0	0	10	4
Road Transport Positions	31	31	0	13	39
Vacant Road Transport Positions	5	5	0	0	39
Sport And Recreation Positions	10	10	0	0	0
Vacant Sport and Recreation Positions	2	2	0	0	0
Waste Management Positions	45	45	49	68	102
Vacant Waste Management Positions	0	0	0	18	52
Waste Water Management Positions	38	38	21	30	75
Vacant Waste Water Management Positions	5	5	0	12	52
Water Positions	17	17	13	57	14

Vacant Water Positions	3	3	0	25	6
Other Positions	9	9	0	10	11
Vacant Other Positions	0	0	0	3	0

11.5 EMPLOYMENT AND VACANCY IN THE TSWELOPELE LOCAL MUNICIPALITY

The Tswelopele LM has had increasing employment positions from 2014 to 2019. In the 2014/2015 financial year, there were 303 positions, and this increased to 320 positions in the 2018/2019 financial year. The vacancy rate was highest in the 2018/2019 financial year with 29.69% of unfilled positions (refer to the table below) (Municipalities of South Africa, no date).

The Section 56 managerial positions were stable from 2014 to 2019 with 5 positions each year. The vacancies were at 0 from 2014 to 2017 and increased to 2 positions in the following years. The managerial positions decreased from 10 positions each year from 2014 to 2017 to 8 positions in the following years. The vacancy rate was highest by 2 or 3 unfilled positions from 2016 to 2019 (refer to the table below) (Municipalities of South Africa, no date).

The Finance and Administration unit had the highest number of positions in the 2018/2019 financial year with 66 positions followed by the Waste Management Department with 55 positions in the same year. The Public Safety unit had the least number of positions in the 2018/2019 financial year with just 5 positions. The Environmental Protection, Health Department had no positions since 2014 (refer to the table below) (Municipalities of South Africa, no date).

Table 8: Employment and vacancy in the Tswelopele Local Municipality from 2014 to 2019
Source: Municipalities of South Africa, no date

Employment	**2018/19**	**2017/18**	**2016/17**	**2015/16**	**2014/15**
Total Employee Positions	320	316	329	305	303
Total Vacant Employee Positions	95	70	69	51	36
Total Vacancy Percentage	29.69%	22.15%	20.97%	16.72%	11.88%
Managerial Positions - S56	5	5	5	5	5
Vacant Managerial Positions-S56	2	2	0	0	0
Managerial Positions - by organogram	8	8	10	10	10
Vacant Managerial Positions - by organogram	3	2	3	0	0

Community and Social Service Positions	25	29	42	30	20
Vacant Community and Social Service Positions	14	17	19	13	1
Finance And Administration Positions	66	83	71	52	51
Vacant Finance and Administration Positions	16	17	16	11	10
Electricity Positions	11	6	5	9	12
Vacant Electricity Positions	4	0	0	0	3
Environmental Protection Positions	0	0	0	0	0
Vacant Environmental Protection Positions	0	0	0	0	0
Health Positions	0	0	0	0	0
Vacant Health Positions	0	0	0	0	0
Public Safety Positions	5	4	4	6	6
Vacant Public Safety Positions	0	0	1	1	1
Road Transport Positions	38	31	42	41	41
Vacant Road Transport Positions	13	0	0	3	3
Sport And Recreation Positions	41	25	25	32	32
Vacant Sport and Recreation Positions	11	0	0	0	0
Waste Management Positions	55	78	78	55	55
Vacant Waste Management Positions	11	32	30	8	8
Waste Water Management Positions	36	31	31	37	37
Vacant Waste Water Management Positions	7	0	0	5	5
Water Positions	22	16	16	28	23
Vacant Water Positions	10	0	0	10	5

Other Positions	8	0	0	0	11
Vacant Other Positions	4	0	0	0	0

12 CROSS-CUTTING ISSUES

12.1 MINING AND ENVIRONMENTAL HEALTH

Mining has a negative impact on the environment, causing biodiversity loss, soil erosion, and contamination of surface water, groundwater, and soil. Sinkholes can also arise as a result of mining. Mining has the potential to damage the air and water supply, harm wildlife and habitat, and permanently alter natural landscapes. The principal source of water pollution from mining is acid mine drainage. Large volumes of ore containing valuable metals like gold and silver, as well as iron and other sulfides, are discovered during mining. Mining activities dig, move, and crush hundreds of tons of rock, considerably increasing the amount of dust and particles in the air. Furthermore, mine tailings can go airborne, containing finely crushed and even hazardous trash. Air pollution has a direct impact on human health (Alaskans for Responsible Mining, 2004).

Wildlife can be displaced, and habitat harmed or destroyed since mining is often a large industrial operation that involves road construction and the use of heavy gear. Drinking tainted water from tailings ponds can poison birds and other species. Aquatic organisms can be killed by increased sedimentation or acidity. Heavy metal exposure can inhibit fish growth even in very low quantities. Fish feed macroinvertebrates that reside in stream silt and eat algae, which have greater metal concentrations than surface waters (Alaskans for Responsible Mining, 2004).

12.2 SPATIAL FRAGMENTATION AND THE ECONOMY

The district is characterised by low density, in addition to this, the region is spatially fragmented. There are pockets of dense populations in the urban centres and some rural areas, but in general, these areas are not spatially integrated. With agriculture being a dominant economic sector in the district, the lack of spatial integration means that more resources are put into transporting agricultural goods and services. This has a negative impact on the districts' main economy.

The separation of settlements also means that investors and businesses are not easily attracted to the district. This has implications for the growth of the local economy, which then has a spin-off effect on unemployment and poverty. Where there are no jobs, there are no workers to pay for municipal services, meaning there is no municipal revenue. Low municipal revenues mean that there is inadequate provision of basic services.

12.3 POPULATION STRUCTURE AND UNEMPLOYMENT

The effective labour input is determined by the economy's employment rate and the workforce's human capital, both of which are influenced by the population age structure. The district has a large population of young children and young adults of working age. This type of pf population structure has a number of effects on employment. One, young children have a high dependency rate on the economically active population. The rate of poverty in the district puts a strain on the household economy. The unemployment rate is already high in the district, therefore, the number of jobs available is not able to absorb the large population of young adults.

The district has a slow population growth and a decreasing household size. This means that there is no substantial increase in the labour force, therefore limiting the growth of the economy. When the economy is not growing, unemployment increases.

13. OPPORTUNITIES AND CONSTRAINTS

13.1 OPPORTUNITIES AND CONSTRAINTS IN RELATION TO TOPOGRAPHY AND CLIMATE

Table 9: Opportunities and constraints in relation to topography and climate

Categories	Commodity/Enterprises	Attributes	Significant Strategic Issues	Opportunities	Constraints
Topography	Landforms	Landscape	Undulating plains and pans, low lands with hills, and plains and pans that are slightly irregular undulating plains and hills. Grass land biome	• Not a difficult terrain for infrastructure and housing development. • Grass land biome is good for grazing	• Grass land biome is vulnerable to wildfires.
		Geology	Rich in gold	• Potential for mining • Mining boosts the local economy. • Mining is a large employer of skilled and unskilled workers.	• Exploitation by extractive industry- irreversible cost to the environment. • Pollutes water systems and the air. • Potential for contracting diseases caused by mining.
		Rivers	Vaal, Modder, Vals, Sand, and Vet Rivers are prominent rivers.	• Resource for drinking water and agriculture. • Rivers sustain the aquatic ecosystem.	• Vulnerable to extreme weather conditions and climate change. • Cause flooding • Vulnerable to pollution from people and mining activities.

Climate	Climate change	Temperature and rainfall	Average winter and summer temperatures. High rainfall patterns to the east of the district.	• High agricultural potential. • Potential for water harvesting and conservation. • Thriving natural ecosystems and animals.	• Vulnerable to extreme weather conditions and climate change. • Flooding • Drought in the western part of the district
Conservation	Protected Areas	Protected Areas	Bloemhof Dam Nature Reserve (632ha) and the Sandveld Nature Reserve.	• Conservation of natural habitats, landscapes, and ecosystems • Tourism potential is a "low-hanging fruit" for economic growth.	• Vulnerable to extreme weather conditions and climate change. • Covid 19 restrictions limit the tourism potential.

13.2 OPPORTUNITIES AND CONSTRAINTS IN RELATION TO POPULATION CHARACTERISTICS

Table 10: Opportunities and constraints in relation to population characteristics

Categories	Commodity/Enterprises	Attributes	Significant Strategic Issues	Opportunities	Constraints
Socio-economic	Population growth	Slow population growth	• A low average annual increase in population growth (1.2%)	• Decreased demand for basic services and infrastructure and housing. • Decreased environmental	• May not attract businesses and investments- low economic opportunities and growth.

				footprint and impact.	
		Population characteristics	• The population structure of the district has a large proportion of younger children than adults.	• Potential for Early Childhood Development initiatives and businesses such as school transportation and creches. • Potential for youth-based service provision, e.g., Sport grounds, etc.	• Increase in child-grants recipients- this becomes a burden to the state and the tax- payer. • Pressure on the school system due to high numbers of school-going children. • Pressure on the health system, e.g., clinics and immunisation. • High economic dependency because of inability to work. • A large number of young adults with drug abuse habits. • High crime rate • High HIV/AIDS infection rates. • Teenage pregnancy.
		Average household size	• The average household size is decreasing (3.4 in 2011 and 3.0 in 2016)	• Decreased demand for basic services and infrastructure. • Increased opportunities for academic achievement amongst children and work	• A decrease in the labour force.

				opportunities amongst adults. • Overall positive implication for household economic economy. • Decreased environmental footprint and impact.	
		Population density	• Low population density (0-500 people per square kilometre)	• Decreased environmental footprint and impact. • The natural environment and animals have the opportunity to thrive in their natural environment.	• May not attract businesses and investments- low economic opportunities and growth. • A decrease in the labour force.

13.3 OPPORTUNITIES AND CONSTRAINTS IN RELATION TO HEALTH AND DISABILITIES

Table 11: Opportunities and constraints in relation to health and disabilities

Categories	Commodity/Enterprises	Attributes	Significant Strategic Issues	Opportunities	Constraints
Socio-economic	Health and disability	HIV/AIDS	• Increasing HIV rate and decreasing AIDS deaths amongst the working age.	• The increased use of antiretroviral therapy, prevention of mother-to-child transmission, condom distribution, and medical male circumcision are all contributing to lowering AIDS mortality rates.	• The increasing HIV rate poses a risk of spreading the virus. • The increasing HIV rate is high among the youth which has wide-ranging social and economic implications. • The increasing HIV rate puts pressure on the health system. • The increasing HIV rate puts pressure on the household structure and economy. • Decreased workforce.
		General Health	High death rates are caused by tuberculosis (15.2%) and lower respiratory diseases (14.9%).	• Focused research on the causes of death.	• Increased pressure on the health system. • Increased economic pressure on the household structure. • Airborne diseases have a high risk of spreading.

			• High death rate of maternal mortality in the country (95.2 per 100,000 live births)	• Special focus and specialisation on maternity health • Focused research on the causes of death.	• Increased pressure on the health system. • Increase in child-headed households. • High dependence of young children on extended families. • Increased economic pressure on the household structure.
		Disability	• High disability amongst the elderly	• Special focus and specialisation on disabilities. • Focused research on the causes of disabilities.	• Increased pressure on the health system. • Increased demand for disability grants- this places a burden on the state and the tax-payer. • High dependency of the elderly on extended family. • Increased economic pressure on the household structure.

13.4 OPPORTUNITIES AND CONSTRAINTS IN RELATION TO EMPLOYMENT, UNEMPLOYMENT AND POVERTY

Table 12: Opportunities and constraints in relation to employment, unemployment and poverty

Categories	Commodity/Enterprises	Attributes	Significant Strategic Issues	Opportunities	Constraints
Socio-economic	Employment	Economically Active Population (EAP)	• High unemployment rate (33.17%)	• None	• Low economic growth. • Municipal revenue is low- meaning there is inadequate provision of services and infrastructure. • Increased socio-economic hardships and social ills. • Increased pressure on state-grants recipients-becoming a burden to the state and the tax-payer. • Low EAP increases economic dependency on those that are employed.
	Poverty	Income inequality and poverty	• High rate of poverty, 45.9% of people living below the lower poverty line	• None	• Low economic growth • Increased socio-economic hardships and social ills. • Increased pressure on state-grants recipients-becoming a burden to

					the state and the tax-payer.

13.5 OPPORTUNITIES AND CONSTRAINTS IN RELATION TO EDUCATION

Table 13: Opportunities and constraints in relation to Education

Categories	Commodity/Enterprises	Attributes	Significant Strategic Issues	Opportunities	Constraints
Socio-economic	Education	Literacy rate, and school attendance	• An annual increase in formal education. • an increase in the number of people attending school from 70.7% in 2011 to 73.6% in 2016. • 21.61% of people with a 'Matric • 16.5% of people with a 'Matric and a Postgraduate degree. • One TVET college (Goldfields TVET College). • The University of the Free State (UFS) has two satellite campuses	• Increase in literacy rate. • Opportunity for employment and participation in the formal economy amongst the youth. • Increased knowledge, skills, and professionalism. • Reduces unemployment, dependence, dependence on state programmes and grants. • Opportunity to increase and access	• There is only one TVET college and 2 UFS campuses in the district- meaning there is added pressure on it and increased competition for access. No diversification of skills. • Due to high unemployment and poverty in the district- there may be a general difficulty in accessing formal higher education.

				higher education facilities.	

13.6 OPPORTUNITIES AND CONSTRAINTS IN RELATION TO THE ECONOMY

Table 14: Opportunities and constraints in relation to the economy

Categories	Commodity/Enterprises	Attributes	Significant Strategic Issues	Opportunities	Constraints
Socio-economic	Economy	Economic growth and performance	• Primary sector- Mining and agriculture are the main drivers of the economy • Secondary sector- manufacturing industry is the second biggest contributor to the economy. • Bloemhof Dam Nature Reserve and the Sandveld Nature Reserve and other places potential for tourism.	• Opportunity for specialisation in agricultural education and training. • Agriculture preserves ecosystems, creates habitats, and boosts soil fertility. • Agriculture creates employment opportunities. • Agriculture as the biggest contributor to the economy means there is potential for intra-provincial trade and exports. • Mining boosts the local economy. • Mining boosts local infrastructure.	• The agricultural sector is vulnerable to extreme weather conditions and climate change. • The agricultural sector is prone to low-skilled labour and farm workers, meaning low remuneration and farm evictions. • Mining has irreversible costs to the natural environment. • Mining pollutes water courses and the air. • Mining increases diseases. • Mining is known for labour unrest. • Mining increases informal settlements • Tourism is negatively impacted by Covid 19

				• Mining is a large employer of skilled and unskilled workers • Tourism offers a low -hanging fruit for economic growth. • Tourism protects and preserves protected areas such as national parks.	restrictions and regulations.

13.7 OPPORTUNITIES AND CONSTRAINTS IN RELATION TO INFRASTRUCTURE

Table 15: Opportunities and constraints in relation to infrastructure

Categories	Commodity/Enterprises	Attributes	Significant Strategic Issues	Opportunities	Constraints
Infrastructure	Electricity	Access to electricity	• Well networked electricity infrastructure. • High access to electricity amongst 85.6% of the population.	• Improved quality of life. • Boosts local economy.	• Electricity is expensive- and may put a financial strain on households and businesses. • High dependence on electricity means the district is vulnerable to the national rolling blackouts and power

					outages- this has a negative effect on households and local businesses.
	Roads	State of roads	• Connected by national and regional roads.	• Road connectivity within the region and to other districts and provinces offers an opportunity for trade and tourism.	• Road infrastructure needs regular maintenance and improvement.
	Water	Access to water	• A high number (95.3%) of the population have access to drinking water.	• Improved quality of life. • Access to water attracts industries and businesses.	• Sparse settlement patterns make the maintenance and provision of water infrastructure expensive. • Rural areas lack bulk water infrastructure and adequate access to drinking water.
	Sanitation	Access to sanitation	• High access of households has access to flushing toilets (82.4%).	• Improved quality of life. • Proper sanitation attracts industries and businesses.	• Flushing toilets use a lot of water. • Flushing toilets need a properly working sewer system.
	Solid waste removal and management	Access to solid waste removal and management	• High number of the population has their garbage collected on a regular basis (79.1%).	• Improved quality of life. • Reduced impact of pollution on the environment.	• Refuse collection is a paid service. Poor communities may not be able to afford it.

	Human settlements	State of housing	• 76% of the population live in formal housing. • 15.7% of the population living in informal dwellings.	• Formal housing has a positive effect on the quality of life. • Formal housing provides an opportunity for selling houses, meaning residents are part of the formal economy.	• Informal dwellings are known for being unsafe and usually in environmentally sensitive areas. They are also areas of inadequate access to basic services, and high unemployment rates- therefore contributing to social ills and poverty.

13.8 OPPORTUNITIES AND CONSTRAINTS IN RELATION TO LAND AND SETTLEMENT PATTERNS

Table 16: Opportunities and constraints to land and settlement patterns

Categories	Commodity/Enterprises	Attributes	Significant Strategic Issues	Opportunities	Constraints
Infrastructure	Settlement pattern	Fragmented settlement pattern	• Urban clusters are relatively far apart. • Some rural settlements are dense, others are scattered. • Some areas have no urban centers.	• Fragmented settlements offer spatial relief in the case of pandemics such as Covid 19.	• Inadequate and unequal access to basic services. • Unequal economy. The economy is concentrated in urban centres, thus excluding rural areas due to a lack of spatial integration.

					• Uneven pockets of wealth and poverty due to unequal access to basic services and economic activities. • In the case of environmental disasters, emergency response will be hindered due to fragmented spatial patterns. • Infrastructure provision and maintenance become expensive due to the long distances that have to be covered. • Increased transport costs for communities.
	Land ownership	Who owns the land?	• The majority of large commercial farms are owned by Whites. • Existing former homelands/bantustans- most of this land is owned by the state. • Urban centres have diverse land ownership models- private, state, and informal tenure.	• None	• The agricultural industry is still dominated by Whites. • Former bantustans are relatively poor areas, with poor basic services provision and high poverty levels.

		Land Reform	• Information is not readily available to the public. • Lack of coordination and leadership by the Department of Agriculture and Rural Development.	• None	• The land sector is not adequately managed. • Like most cases in South Africa, land reform is a slow process.

14. SUMMARY AND ANALYSIS

The Lejweleputswa District Municipality is the gold mining capital of the Free State. Gold mining is a lucrative business with the ability to boost the local economy and infrastructure. The district has several tourist attractions, and it is well connected to the rest of the country through the N1. Tourism is a “low-hanging fruit” for trade and economic growth. The district also boasts an impressive level of basic services provision. Communities of the Lejweleputswa district have over and above access to water, electricity, and proper sanitation. Ironically, the district is a poor area with a high unemployment rate and poverty levels. This contradiction suggests structural and spatial challenges.

14.1 TOPOGRAPHY

The area is rich in several mineral deposits and gold which have the potential of boosting the local economy and industries. Mining is a large employer of skilled and unskilled workers. However, it is excrative in nature and has irreversible costs to the environment. Mining pollutes the water systems and the air and makes workers and surrounding communities vulnerable to diseases.

The most prominent rivers are the Vaal, Modder, Vals, Sand, and Vet Rivers which serve the area with drinking water and irrigation. Rivers also sustain aquatic life and ecosystems. However, they are vulnerable to extreme weather conditions and climate change, and pollution. They may also cause flooding in extremely rainy seasons.

The area has high rainfall patterns to the east of the district which means there is great potential for agriculture, water harvesting and conservation. However, climate change and extreme weather conditions may cause flooding or drought.

The Bloemhof Dam Nature Reserve and the Sandveld Nature Reserve are the two most prominent conservation areas with the potential for attracting tourists. Protected areas have the benefit of conserving natural habitats, landscapes, and ecosystems. However, they are vulnerable to extreme weather conditions and climate change. The recent Covid 19 restrictions limit travel, therefore decreasing potential tourists.

14.2 POPULATION CHARACTERISTICS

The Lejweleputswa District municipality had a population of 624 746 in 2011 and increased to 646 920 in 2016. The annual growth rate of the district was 1.2% in 2016. Although the population is growing, it is happening at a slow rate. The district also has a low population density of 0-500 people per square kilometre for most of its region. A low annual population growth implies that businesses and investors are not generally not attracted to such areas since there is a decreased labour market. This may pose a disadvantage to regional economic growth, which then impacts national economic growth. The positive side of this is that low population growth places less pressure on the demand for basic services such as water, sanitation, electricity, etc. It also adds less pressure to the provision of infrastructure

such as roads, health facilities, schools, housing, etc. A low population density also means that there is a decrease in the environmental footprint, which means that the natural environment can thrive.

The average household size of the district is decreasing. It was 33.4 in 2011 and decreased to 3.0 in 2016. While there is a decrease in the household size, the population structure of the district has a large proportion of younger children than adults. The implication of this is that there will be an increase in the dependence on child-grants and this is a burden to the tax payer. There will be pressure on the education system, particularly primary schools, as well as the health sector, for example, there will be greater demand for maternity health and immunisation services. The high dependency rate of having a younger population means that there is a high economic dependency because of their inability to work. This will also contribute to a higher unemployment rate.

14.3 HEALTH AND DISABILITIES

The district has a high rate of HIV infections among the working age. This has several implications for the district. One, the young population is at a higher risk of infecting others and spreading the virus. Two, an increasing HIV rate among the youth has wide-ranging social and economic implications. They cannot work due to ailing health, which then means that they add more strain on the household economy. The labour force is also reduced due to ill health which has implications for the economy.

Tuberculosis (15.2%) and lower respiratory diseases (14.9%) are the second highest illnesses to affect the population of the district. This suggests that there are environmental causes that are causing people to be ill since these illnesses are airborne.

The district also has high maternal mortality of 95.2 per 100,000 live births. Since the district is a sparsely populated area, there may be difficulty in accessing health facilities, as well as bad road infrastructure. The implication of high maternal mortality is increased pressure on the health system, an increase in child-headed households, high dependence of young children on extended families which then adds more pressure on the household economy.

In relation to disabilities, the highest numbers of disabilities are among the elderly over 85 years, and they make up 72% of the population.

All these factors have several negative implications for the district. One, a high mortality rate of mothers and children, and the elderly means that the most vulnerable in society are not receiving adequate health care. This puts pressure on the public health care system since the category of people who are ill are the most economically inactive. Illness amongst this group also means that there is increased economic pressure on the household structure and on those that are economically active.

14.4 EMPLOYMENT, UNEMPLOYMENT AND POVERTY

The district has a high rate of unemployment (33.17%) and 45.9% of people are living below the poverty line. The implications of this cut across several aspects. One, the economy of the district is unable to grow sufficiently when there are no jobs and work opportunities. This spills over into the provision of basic services and infrastructure. With a struggling economy and high unemployment

rates, municipalities are not able to provide services and infrastructure due to low revenue generation. Two, high unemployment and poverty levels have wide-ranging socio-economic hardships and social ills. Three, a low EAP means that there is added economic pressure on those that are employed within the household, adding to an increase in hardship and social ills. This affects women the most, since they are the least employed, and thus contributes to gender inequality and an increase in Gender Based Violence. Four, high unemployment and poverty levels mean that there is high dependence on state social grants, which becomes a burden to the state and the tax-payer.

14.5 EDUCATION

The district experienced an annual increase in the number of people with formal education. There was an increase in the number of people attending school from 70.7% in 2011 to 73.6% in 2016. The number of people with a matric was 21.61% and the number of people with matric and a postgraduate degree was 16.5% in 2016. There is one TVET college and two satellite campuses of the University of the Free State.

There are positive spins offs in increasing numbers of pupils with formal education. The obvious advantage is the increase in literacy rate which provides opportunities for employment opportunities and participation in the formal economy. There is also an increase in knowledge, skills, and professionalism amongst the youth. This is likely to reduce unemployment, and dependence on state programmes and grants.

However, due to a high unemployment rate and poverty levels in the region, there may be difficulty in accessing formal higher education, thus exacerbating poverty levels and dependence. In addition to this, there is only one TVET college in the district, thus increasing pressure on it, as well as competition for access. The two university satellite campuses may not offer diverse courses which may force people to migrate to other districts or provinces in order to access other formal higher education institutions. This contributes to an out-pouring of the youth to other provinces and districts, meaning that skills and knowledge also leave the district. Overall, the increase in formal education is a positive sign that there must be more resources put into the development of diverse higher education institutions.

14.6 THE ECONOMY

The two primary sectors that have the greatest contribution to the district's GDP are mining and agriculture. The manufacturing sector is the second biggest contributor to the local economy. The district also hosts several tourist destinations with the Bloemhof Dam Nature Reserve and the Sandveld Nature Reserve as the most prominent.

Mining is a great booster to the economy and a large employer of both skilled and unskilled workers. However, there are obvious environmental risks due to its extractive nature. It also poses ill health to the workers and neighbouring communities. The mining sector is known for exploiting workers and labour unrest.

The positive effect of agriculture is that there is the preservation of ecosystems, creates habitats, and boosts soil fertility, thus slowing the negative effects that urban environments put on the natural environment. The dominance of the agricultural sector provides an opportunity for the establishment of specialised formal higher education institutions and training. Agriculture is also a large employer; however, it is known for employing low skilled workers with low remuneration. This sector is also known for farm evictions.

The district has a high tourism potential due to its diverse landscapes and ecosystems. This is a low-hanging fruit for economic growth and protection and preservation of protected areas. However, the tourism sector was the hardest hit by the Covid 19 restriction and imposed regulations.

14.7 INFRASTRUCTURE

The district is impressively performing well with regard to the provision of basic services. The population has high access to electricity (85.6%), high access to drinking water (95.3%), high access to flushing toilets (82.4%), a high number of the population has their garbage collected on a regular basis (79.1%) and it has 76% of the population living in formal housing. It is also well connected to the rest of the country through the N1.

All the above have a positive effect on the general quality of life of the population since their most basic needs are met. However, sparse settlement patterns make the maintenance and provision of infrastructure expensive. Most of these basic services are paid services. For instance, electricity is expensive and puts a strain on the household economy.

14.8 LAND AND SETTLEMENT PATTERNS

The settlement pattern of the district is scattered with urban areas that are far apart, while large rural settlements are dense, others are scattered. Other areas such as Masilonyana LM have no urban centers meaning that residents have to travel far to access commercial and economic activities. The implication of this is inadequate and unequal access to basic services. Thus, infrastructure provision and maintenance become expensive due to the long distances that have to be covered and there are increased transport costs for communities. The economy is concentrated in urban centres, thus excluding rural areas due to a lack of spatial integration. There are uneven pockets of wealth and poverty due to unequal access to basic services and economic activities. In the case of environmental disasters, emergency response will be hindered due to fragmented spatial patterns.

In relation to land ownership, commercial farms are still largely dominated by White owners, meaning that the agricultural industry, which is a dominant economic sector, is owned by a minority group.

There are existing former bantustans in the district. Like most former bantustans, land in these areas belongs to the state. These areas are under traditional leadership, meaning communities have customary tenure. This has several implications. One, the provision of basic services becomes difficult because basic service provision is linked to formal ownership of land. Two, communities are unable to participate in the formal property economy due to a lack of legal tenure. The positive side of customary tenure is that it allows access to land to the poorest communities. There is the generational inheritance of land which secures families.

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