



MAKHUDUTHAMAGA

LOCAL MUNICIPALITY

Mmogo re šomela diphetogo!



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1. INTRODUCTION

1.1 Background to the Project

Makhuduthamaga Municipality has embarked on a process to review its Spatial Development Framework in compliance with legislative dictates enshrined in the Municipal Systems Act and the Spatial Planning and Land Use Management Act. Its last MSDF was adopted in 2015 and a revision was required to update it to remain relevant and address the spatial challenges facing the municipality.

Makhuduthamaga Local Municipality, like many rural municipalities in the Republic of South Africa, is characterised by a fragmented spatial settlement structure that is portrayed by poor accessibility, small, low density settlements separated by large distances between them. This spatial structure which is the result of apartheid policies which impacted on the spatial environment over many decades has resulted in the creation of unviable and unsustainable settlements.

Clearly, this current spatial structure has not only resulted in the uneven and costly duplication of essential community facilities and basic infrastructure services, but also in the total lack of such facilities and infrastructure throughout a larger section of the Municipality.

The introduction of Spatial Development Frameworks as part of integrated development planning process that culminates in Integrated Development Plans since 2000 is a tool aimed at

addressing historically distorted, unviable and unsustainable spatial patterns and challenges caused by apartheid planning.

Section 6 of the Makhuduthamaga Local Municipality Spatial Planning and Land Use Management By-Law, 2020, published under Provincial Notice 35 in Provincial Gazette 3070 of 06 March 2020, requires the municipality to review its Spatial Development Framework (SDF) in accordance with sections 20 and 21 of the Spatial Planning and Land Use Management Act 16 of 2013 (SPLUMA) read with sections 23 to 35 of the Local Government: Municipal Systems Act 32 of 2000 (Municipal Systems Act). A municipal SDF must be prepared as part of a municipality's Integrated Development Plan (IDP) in accordance with the provisions of the Municipal Systems Act.

Accordingly, a municipal IDP must contain the following core components as set out in section 26 of the Municipal Systems Act:

- the Municipal Council's Vision for the long-term development of the municipality with special emphasis on the municipality's most critical development and internal transformation needs;
- an assessment of the existing level of development in the municipality, which must include an identification of communities which do not have access to basic services;
- the Council's Development Priorities and Objectives for its

elected term, including its local economic development aims and its internal transformation needs;

- the Council's Development Strategies which must be aligned with any national or provincial sectoral plans and planning requirements binding on the municipality in terms of legislation;
- a Spatial Development Framework which must include the provision of basic guidelines for a land use management system for the municipality;
- the Council's Operational Strategies;
- applicable Disaster Management Plans;
- a Financial Plan, which must include a budget projection for at least the next three years

Section 34 of the Municipal Systems Act requires a review and amendment of a municipal IDP annually in accordance with an assessment of its performance measurements in terms of section 41 of the Municipal Systems Act and to the extent that changing circumstances demand. As a result, a municipal SDF must be reviewed in accordance with the annual review of a municipal IDP.

In addition, the review of the municipal SDF will facilitate implementation of the IDP spatially in terms of the Municipal

Systems Act. The revised Makhuduthamaga Local Municipality SDF will comply with the Guidelines for Preparation of Spatial Development Frameworks of a municipality which should at least achieve the following objectives:

- a) to give effect to the development principles and applicable norms and standards set out in as contained in Chapter 2 of the SPLUMA;
- b) include a written and spatial representation of a five-year spatial development plan for the spatial form of the municipality;
- c) include a longer-term spatial development vision statement for the municipal area which indicates a desired spatial growth and development pattern for the next 10 to 20 years;
- d) identify current and future significant structuring and restructuring elements of the spatial form of the municipality, including development corridors, activity spines and economic nodes where public and private investment will be prioritised and facilitated;
- e) include population growth estimates for the next five years;
- f) include estimates of the demand for housing units across different socio-economic categories and the planned location and density of future housing developments;
- g) include estimates of economic activity and employment trends and locations in the municipal area for the next five years;
- h) identify, quantify and provide location requirements of Engineering infrastructure and services provision for existing and future development needs for the next five years;

- i) identify the designated areas where a national or provincial inclusionary housing policy may be applicable;
- j) include a strategic assessment of the environmental pressures and opportunities within the municipal area, including the spatial location of environmental sensitivities, high po-tential agricultural land and coastal access strips, where applicable;
- k) identify the designation of areas in the municipality where incremental upgrading ap-proaches to development and regulation will be applicable;
- l) identify the designation of areas in which-
 - i. more detailed local plans must be developed; and
 - ii. shortened land use Development Procedures may be applicable and land use schemes may be so amended;
- m) provide the spatial expression of the coordination, alignment and integration of Sectoral Policies of all municipal departments;
- n) Determine a Capital Expenditure Framework for the Municipality's development pro-grammes, depicted spatially.

A municipal SDF is therefore a spatial representation of the restructuring and transformation objectives of a municipality that ensures that a more sustainable land use pattern and optimum utilization of space is established. In compliance with the requirements of the Municipal Sys-tems Act and SPLUMA, the Makhuduthamaga Local Municipality (Makhuduthamaga Municipali-ty) prepared and adopted its Spatial Development Framework in February 2015. To maintain the relevance and

usefulness, Makhuduthamaga Municipality's SDF must be reviewed to up-date and evaluate progress and to ensure that the spatial, social, environmental and economic challenges confronting Makhuduthamaga Municipality are addressed.

1.2 Project Objective

The overall objective of this study is to review and amend the Makhuduthamaga Municipality's SDF in accordance and compliance with the SPLUMA requirements and Guidelines for Devel-opment of Spatial Development Frameworks issued by the Department of Agriculture, Land Reform and Rural Development.

1.3 SDF Legislative Context

The Municipal Systems Act first introduced the concept of an SDF as a component of the IDP that every municipality must adopt. Chapter 5 of the Municipal Systems Act deals with inte-grated development planning and provides the legislative framework for the compilation and adoption of IDPs by municipalities. As a result, section 26 of the Municipal Systems Act specifi-cally requires a municipal SDF as a mandatory component of a municipal IDP.

In 2001 the Minister responsible for Provincial and Local Government (now known as Minister responsible for Cooperative Governance and Traditional Affairs) promulgated the Local Gov-ernment: Municipal Planning and Performance Management Regulations, 2001, published un-der Government Notice R796 in Government Gazette 22605 of 24 August 2001, in terms of section 120 read with sections 37, 43 and 49 of the Municipal Systems

Act. Regulation 2 (4) of the Municipal Planning and Performance Management Regulations, 2001 prescribes the contents for a municipal SDF as part of a municipal IDP.

However, as indicated earlier, SPLUMA was promulgated and came into operation on 01 July 2015. SPLUMA repealed, amongst others, the whole of the Development Facilitation Act 67 of 1995, and provides a framework for spatial planning and land use management in the Republic of South Africa. In addition, SPLUMA seeks to promote consistency and uniformity in procedures and decision-making. Other objectives include addressing historical spatial imbalances and the integration of the principles of sustainable development into land use and planning regulatory tools and legislative instruments.

Chapter 2 of SPLUMA sets out the development principles that must guide the preparation, adoption and implementation of any spatial development framework, policy or by-law concerning spatial planning and the development or use of land.

These five founding principles, outlined in more detail in Section 2.1 below include the redress of spatial injustices and the integration of socio-economic and environmental considerations in land use management to balance current development needs with those of the future generations in a transformative manner.

Furthermore, SPLUMA reinforces and amplifies the National Development Plan (NDP) in respect of using spatial planning

mechanisms to eliminate poverty and inequality while creating conditions for inclusive growth by seeking to foster a high employment economy that delivers on social and spatial cohesion.

CHAPTER 2: MUNICIPAL OVERVIEW

2.1 CONTEXTUAL OVERVIEW

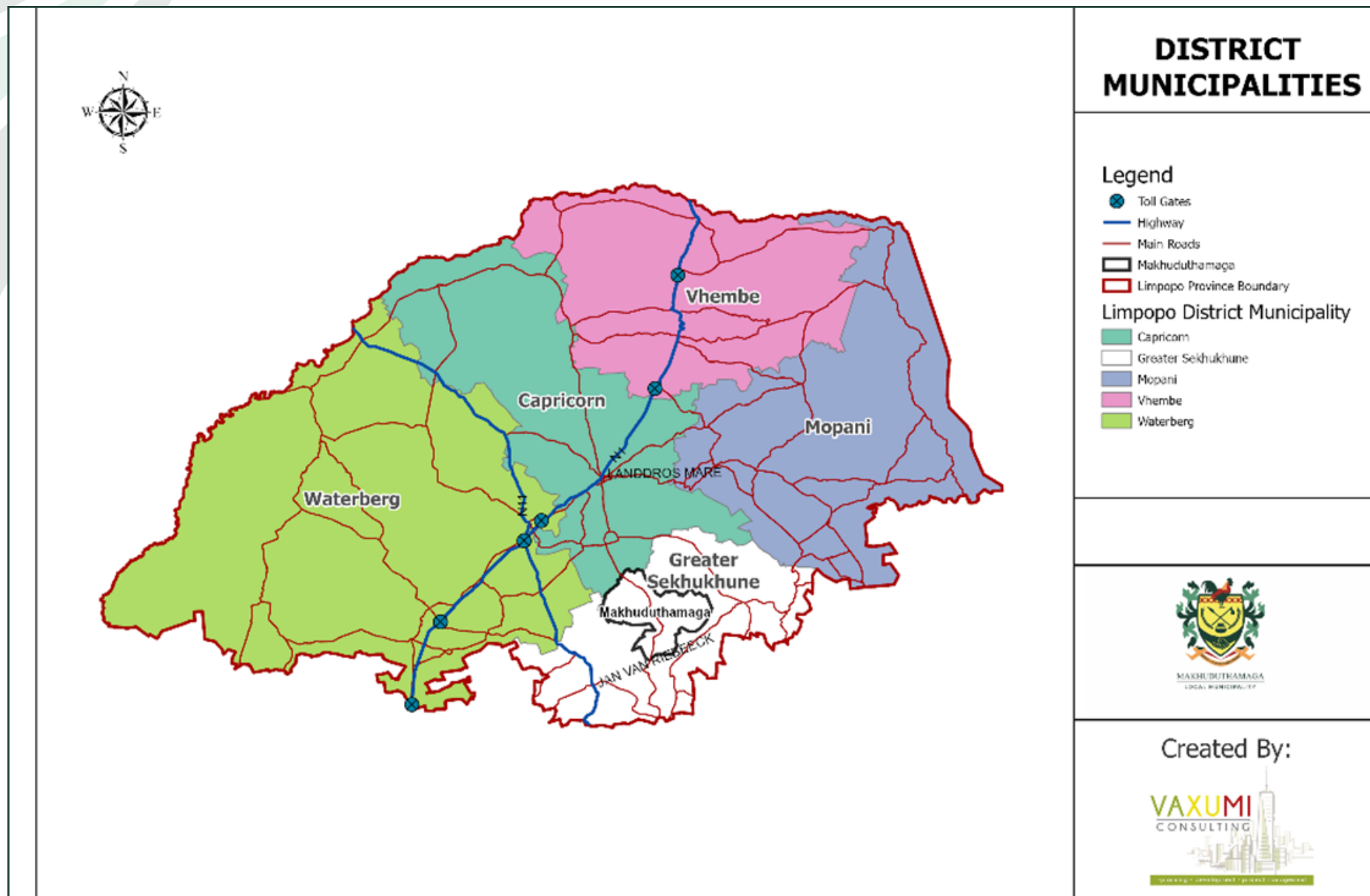
This chapter provides a high level overview of the MLM to introduce its spatial location within the national provincial, district and local contexts. It also introduces general statistical information, areas of comparative and competitive advantages, general trends and developments, as well as challenges and opportunities.

2.1. Makhuduthamaga within a regional context

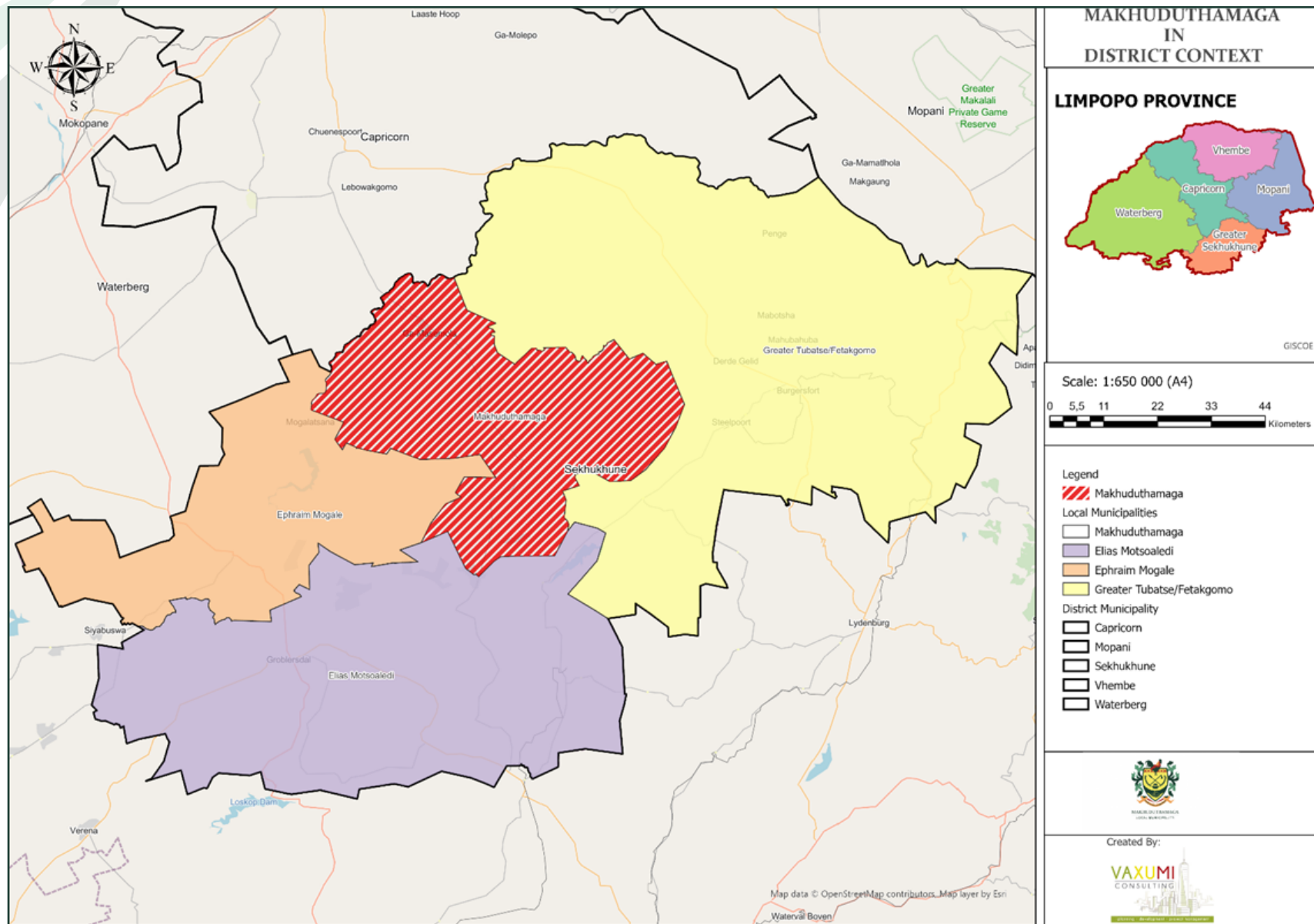
Makhuduthamaga Municipality is one of the four local municipalities located within the Sekhukhune District Municipality of the Limpopo Province.

Map 1 shows the location of Makhuduthamaga Local Municipality which is a Category B Municipality established in terms of the Municipal Structures Act within the provincial context.

Map 2 shows the Makhuduthamaga Local Municipality in a district context as one of the four municipalities constituting Sekhukhune District Municipality (alongside Elias Motsoaledi Local Municipality, Fetakgomo-Tubatse Local Municipality, and Ephraim Mogale Local Municipality).



Map 1: Makhuduthamaga Municipality Provincial Context



Map 2: Makhuduthamaga Municipality District Context

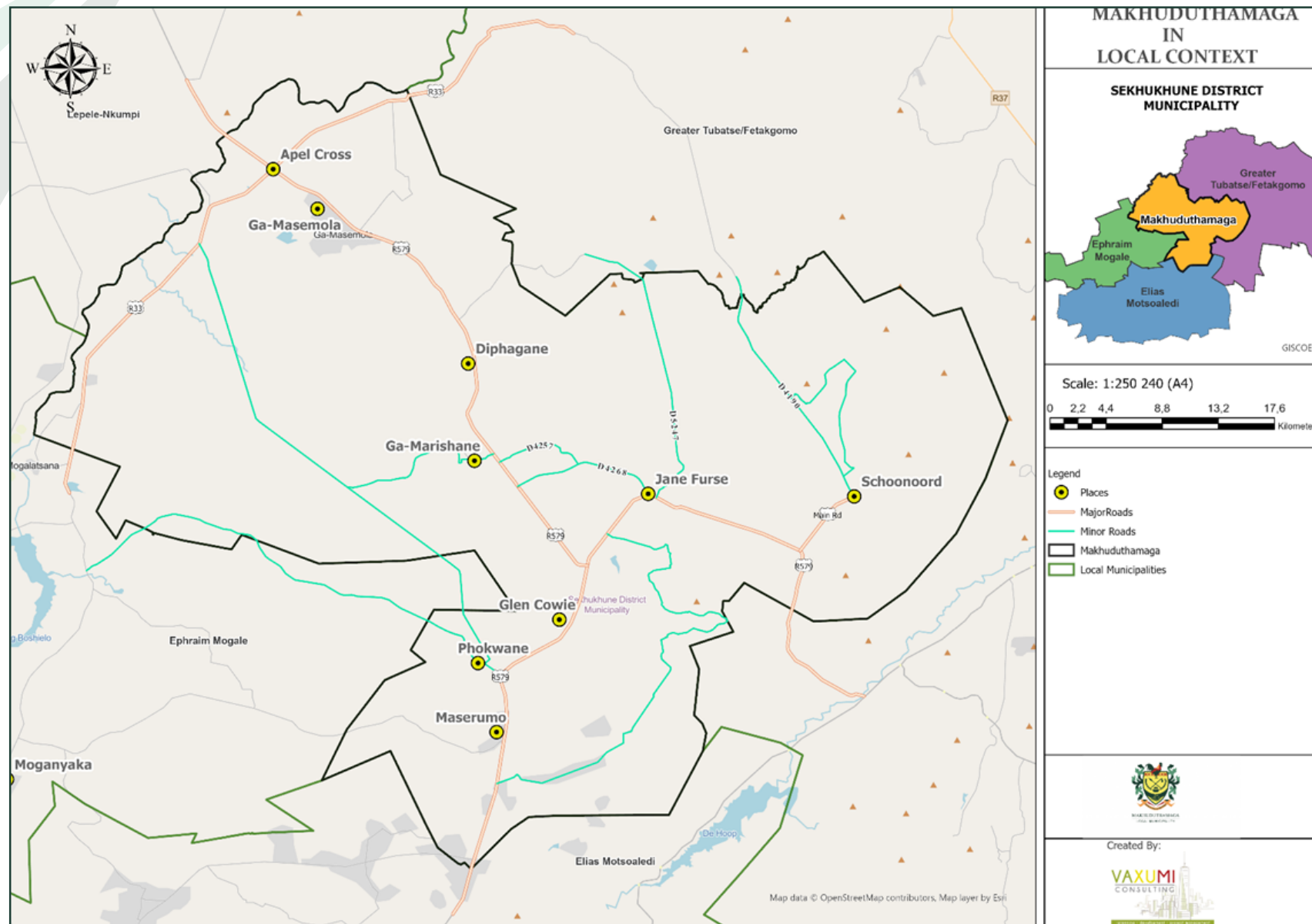
Makhuduthamaga Municipality covers an area in extent of about 211 886 ha of land and constitutes the largest (16%) section of the Sekhukhune District Municipality. The Municipality is bordered to the north by Capricorn District Municipality through Lepelle Nkumpi Local Municipality, to the east by Fetakgomo Tubatse Local Municipality, to the south by Elias Motsoaledi Local Municipality, to the west by Ephraim Mogale Municipality.

The central positioning of the Makhuduthamaga Municipality within the Sekhukhune District Municipality makes it a strategic area of choice for the location of regional offices and other organs of development in the region. Jane Furse, the head quarter of

Makhuduthamaga Municipality is located 347 km North East of Johannesburg; 247km North East of Pretoria; 189 km South East of Polokwane; and 70 km South West of Burgersfort.

2.1.2 Makhuduthamaga within a Local Context

Map 3 shows towns and villages constituting Makhuduthamaga Municipality comprising 31 wards. Settlements comprising the 31 wards of Makhuduthamaga Municipality are mentioned in Table 1 to this SDF. Generally, the majority of settlements in the municipality are rural areas in nature with a noticeable urban mix in Jane Furse town.



Map 3: Makhuduthamaga Municipality within a local content

WARD	SETTLEMENTS
1	Ga Tshehla, Hlalanikahle, Kutupu, Ratanang Kutupu Extension
2	Phokoane, Mabintane, Mogudi
3	Mokgapaneng, Makoshala, Phokoane(Malegale) Phokoane (Mapaeng) Pho-koane (Ramabele Malatji,Lefakong,Skotiphola and Mashifane), Phatametsane, Masioneng
4	Rietfontein, Vierfontein A,B,C, Katlegong (Vierfontein D, Vierfontein E (Mashemong section)
5	Maserumule Park, Mohlwarekoma, Leeukraal, Matlakakatle A and B
6	Eenzaam Trust, Patantshwane B, Patantshwane A, Eenzaam Kgoloko, Mare, Ga-Mmaboki, Ga-Diago
7	Thoto, Malaka, Ntoane, Manthlanyane, Manotong, Dikatore, Setebong
8	Mathousand / Hlahlane, Pelepele Park / Maswiakae, Mochadi, Brooklyn, Leoka-na, Caprive
9	Riverside, Morgenson, Magapung
10	Mogorwane, Moripane A and B, Phushulang, Ngwanamatlang, Ga-Moloi
11	Ga-Molepane, Mokwete, Vergelegen A
12	Ga-Moretsele, Ga-Makgeru, Ga-Ratau, Makgane, Ga-Senamela, Ga-Maphopha
13	Mashengwaneng, Ga-Mogashoa Manamane, Ga-Mogashoa Ditlhakaneng, Phase Four, Mabonyane
14	Ga-Sekele, Moela, Kgopane, Ga-Maloma, Ga-Seopela, Legapane, Ga-Tshesane, Dingoane, Matiloaneng B, Mabule, Tsopaneng, Stocking
15	Mohlakaneng / Tsewele, Houpakranz, Mohlake, Ga-Magolego, Ga-Maila Mapitsane, Dlamini
16	Dihlabaneng, Mashegwana Legare, Kotsiri, Ga-Mashegwana Tswaledi
17	Manganeng, Ramphelane, Mashite, Mathibeng (Ga Toona), Kgolane

18	Jane Furse RDP, Vergelegen B, Dicheoung, Ga-Moraba
19	Madibong (Malaeneng, Sechabeng, Ga- Mokgwatsane, Sekhutlong and Masio-long), Mamone (Matsoke), Vergelegen C, Mashishing
20	Ga-Tisane, Mamone (Rantho), Magolaneng, Mamone (Manyeleti), Mamone Centre
21	Mamone- Matsoke, Mamone – A1 Bothas (Ga-Mohlala), Mamone – A2 (Ga-Mohlala), Mamone – A3 (Ga-Manyaka), Mamone –A4 (Tanzania)
22	Malegale (Sebitje), Sebitjane, Lekgwareng, Tjatane, Tjatane Extension, Madibaneng (Matolokwaneng), Greater Madibaneng
23	Ga-Maila Segolo, Dinotji, Mathibeng, Marulaneng, Mashupye, Maseleseleng / Sebitlule
24	Diphagane, Ga-Phaahla, Masehlaneng, Lobethal, Mamoshalele, Porome, Mamatjekele
25	Maololo, Ga-Mashabela (Malegasane), Mohwelere, Molebeledi, Machacha, Ga-Selepe, Ga-Marodi, Mapulane / Talane, Mahlakanaseleng
26	Mathapisa, Mampane Thabeng, Kgarethuthu, Soedtveld, Ga-Marishane, Bo-thaspruit), Makgophong / Porome
27	Mabopane, Manare, Mohloding, Masemola (Moshate), Thabampshe Cross ex-tension (Mabopane), Morareleng, Police station extension
28	Thabampshe, Tswaing, Ga-Maphutha, Wonderboom, Maroge, Mahubitswane, Mahlakole, Vlakplaats
29	Malope, Molelema, Mahlolaneng, Mashoanyaneng, Maraganeng, Pitjaneng, Machasdorp, Mphane, Makgwabe, Moji / Sekale/Apel cross
30	Krokodile, Setlaboswane, Legotong, Serageng, Masanteng, Mogaladi,
31	Kome, Ntshong, Mmotwaneng, Masakeng, Mangwanyane, Vlakplaats, Eenkantaan, Motseleope Makhutso, Semahlakole / Sehuswane

Table 1: Municipal Wards and Settlements

2.2 Institutional Structure

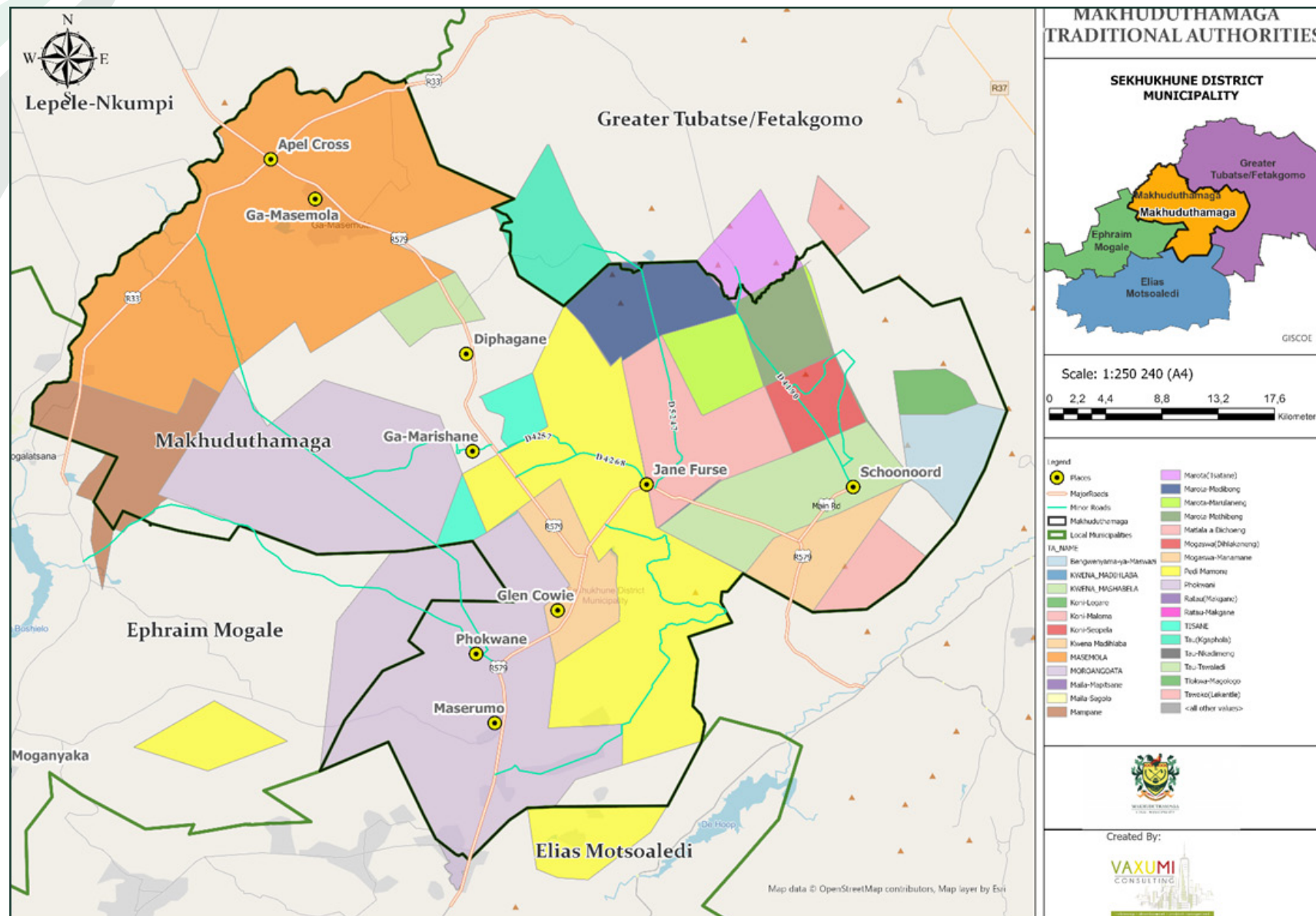
The following Tribal Authorities administer various settlements within Makhuduthamaga Mu-nicipality

TRADITIONAL LEADER AND SETTLEMENT

Name of Traditional Authority	Traditional leader	Settlements
Marota Madibong	Kgoshigadi Kgoloko	Madibong
Maila Mapitsane	Kgoshigadi Maila Madinoge Alice	Maila Mapitsane
Maila Segolo	Kgoshi Maila Mathabeng George	Maila Segolo
Tlokwe Magolego	Kgoshi Magolego Mmidi William	Magolego
Marota Makgane	Kgoshi Makgeru Sefogole Frans	Makgane
Kone Maloma	Kgoshi Maloma Matime Gordon	Ga-Maloma
Tau Tswaledi	Kgoshi Mashegoane Dithoto Lehutso	Mashegoane-Tswaledi
Kone Legare	Kgoshi Mashegoane Reuben Kwekwe	Mashegoane-Legare
Mogashoa Ditlhakaneng	Kgoshi Mogashoa Ditlhakaneng Sydney	Mogashoa Ditlhakaneng
Mogashoa Manamane	Kgoshi Mogashoa Manamane Edward	Mogashoa Manamane
Tswako Lekentle	Kgoshigadi Mohlala Gadifele Bridgette	Madibaneng

Tau Nkadimeng	Kgoshi Nkadimeng Ramphelane Wilson	Manganeng
Bangwenyama ya Maswazi	Kgoshigadi Nkosi	Ga-Nkosi
Marota Mathibeng	Kgoshigadi Ntobeng Khudu Annah	Mathibeng
Ratau Makgane	Kgoshi Ratau Malakeng Ernest	Ga-Ratau
Kone Seopela	Kgoshigadi Seopela Nkweng Jane	Ga-Seopela
Marota Tjatane	Kgoshigadi Seraki Mathuding Rachel	Tjatane
Marota Marulaneng	Kgoshi Thulare Seraki Equator	Marulaneng
Marota Mamone	Kgoshi Mampuru	Mamone, Jane Furse and surrounds
Kwena Madihlaba	Kgoshi Madihlaba Dikoetje John	Ga-Moloi, Glen-Cowie
Phokoane	Kgoshigadi Maserumole Makwetle Betty	Phokoane
Tisane	Kgoshi Tisane Moroangoato Ntladi	Ga-Tisane
Batau ba Marishane	Kgoshi Marishane Makau	Ga-Marishane
Batau ba Phaahla	Kgoshi Phaahla Letsiri George	Ga-Phaahla
Batau ba Masemola	Kgoshigadi Masemola Makgatle Lydia	Ga-Masemola
Mampane	Kgoshi Mampane Maunatlala John	Ga-Mampane

Table 2: list of traditional authorities in Makhuduthamaga Municipality (source Makhuduth-amaga Municipality)



Map 4: Tribal Authorities Land administration

2.3 MAKHUDUTHAMAGA MUNICIPAL PROFILE

Area of jurisdiction	211 886 ha
Total population	284 435
No of households	64 769
No of wards	31
No of traditional authorities	26
Nodes and key strategic areas	Jane Furse, Apel Cross, Phokwane, Schoonoord, Glen Cowie, Moratiwa Crossing
Operating budget 2021/22	
Capital budget 2021/22	
Total budget 2021/22	

Table 2(b): Summary municipal profile

2.4 MAKHUDUTHAMAGA DIAGNOSTICS AND PRESSING NEEDS

Emanating from key municipal documents, strategies including those of the province and Sekhukhune District Municipality, the following are regarded as key issues for MLM:

2.4.1: The Economy

Low economic base and high unemployment rate

2.4.2: Provision of sustainable service delivery and infrastructure

Poor or non-existent comprehensive delivery of infrastructure

2.4.3: Current spatial structure and patterns

Unsustainable settlements caused by poor spatial patterns and land use management. There is also a challenge of land tenure.

2.5 PRIORITY ISSUES

The following have been identified in the IDP as priorities for the MLM:

- 2.5.1 To ensure acquisition and sustainable use of land and promote growth and development;
- 2.5.2 To reduce infrastructure and service backlogs in order to improve quality of life of the community by providing them with roads & storm water, bridges electricity and housing;
- 2.5.3 To create and manage an environment that will develop

stimulate and strengthen local economic growth;

- 2.5.4 To provide sound and sustainable management of the financial affairs of Ma-khuduthamaga Local Municipality;
- 2.5.5 To promote good governance, public participation, accountability, transparency, effectiveness & efficiency; and
- 2.5.6 Improve internal and external operation of the municipality and its stakeholders

3 POLICY CONTEXT AND VISION DIRECTIVES

3.1 Policy Context and Development Guidelines

Development in the Republic of South Africa, by implication Makhuduthamaga Municipality, is guided and directed by a range of national, provincial and local legislation as well as policies and plans. The following section briefly discusses the relevant development legal framework, policies and plans, and highlights the most important guidelines for Ma-khuduthamaga Municipality.

3.2 Legal Framework

3.2.1 Local Government: Municipal Systems Act, 2000 (Act 32 of 2000)

The Municipal Systems Act 2000 (Act 32 of 2000) provides for a municipality to develop an SDF as a core component of the IDP, which must be in line with the guidelines as already discussed in section 1.1.

3.2.2 Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013)

The SPLUMA was promulgated and came into operation on 01 July 2015. SPLUMA provides, amongst others, a framework for spatial planning and land use management in the Republic of South Africa. SPLUMA also provides an understanding into the relationship between spatial planning and land use management including monitoring, coordination and review of spatial plans and land use management systems across all spheres of government.

SPLUMA further emphasizes the need to prepare spatial development framework and to ensure its linkage to land use management system. Unlike in the past when municipalities prepared land use schemes which focused primarily on proclaimed towns, SPLUMA requires wall-to-wall land use schemes covering the entire municipal jurisdiction and linked to spatial planning. Furthermore, SPLUMA provides guidelines regarding the content of spatial planning at three spheres of government.

SPLUMA puts forward a set of principles to influence spatial planning, land use management and land development in the Republic of South Africa. According to the general principles endorsed by SPLUMA, spatial planning, land use management and land development must promote and enhance Spatial Justice, Spatial Sustainability, Efficiency, Spatial Resilience and Good Administration. These principles are briefly discussed hereunder:

- a) Spatial Justice**
 - past spatial and other development imbalances must be redressed through improved access to and use of land;
 - spatial development frameworks and policies at all spheres of government must address the inclusion of persons and areas that were previously excluded, with an emphasis on informal settlements, former homeland areas and areas characterised by widespread poverty and deprivation;
 - spatial planning mechanisms, including land use schemes, must incorporate provisions that enable redress in access to land by disadvantaged communities and persons;
 - must include all areas of a municipality and specifically include provisions that are flexible and appropriate for the management of disadvantaged areas, informal settlements and former homeland areas;
 - must include provisions that accommodate access to ensure tenure and the incremental upgrading of informal areas and
 - a municipal planning Tribunal considering an application before it, may not be impeded or restricted in the exercise of its discretion solely on the ground that the value of land or property is affected by the outcome of the application.
- b) Spatial Sustainability**
 - promote land development that is within the fiscal, institutional and administrative means of the municipality;
 - ensure that special consideration is given to the protection

of prime and unique agricultural land;

- uphold consistency of land use measures in accordance with environmental management instruments;
- promote and stimulate the effective and equitable functioning of land markets;
- consider all current and future costs to all parties for the provision of infrastructure and social services in land developments;
- promote land development in locations that are sustainable and limit urban sprawl; and result in communities that are viable.

c) Efficiency

- land development optimises the use of existing resources and infrastructure;
- decision-making procedures are designed to minimise negative financial, social, economic or environmental impacts; and
- development application procedures are efficient and streamlined.

d) Spatial Resilience

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

e) Good Administration

- all spheres of government ensure an integrated approach to land use and land development that is guided by the spatial planning and use management systems as embodied in this Act;
- all government departments must provide their sector inputs and comply with any other prescribed requirements during the preparation or amendment of spatial development framework;
- the requirements of any law relating to land development and land use are met timeously;
- the preparation and amendment of spatial plans, policies, land use schemes as well as procedures for development applications, include transparent processes of public participation that afford all parties the opportunity to provide inputs on matters affecting them; and
- policies, legislation and procedures must be clearly set in order to inform and empower members of the public.

SPLUMA Spatial Implications for Planning in Makhuduthamaga Municipality

The promulgation of SPLUMA means that the Makhuduthamaga Municipality must drastically break away from past planning practices that promoted inefficiencies, spatial injustice, spatial unsustainability and poor administration through unnecessary red tape. This simply means that the municipality must strive for settlements that are inclusive of people from all walks of life irrespective of economic status as is the case with most cities

and towns of South Africa where there are sections reserved specifically for the financially and economically able persons while other portions are reserved for poor sections of the society in a section called RDP section with poor infrastructure and few amenities of life.

Furthermore, SPLUMA implications for the Makhuduthamaga Municipality on the spatial side is that continuation of the current spatial form characterized by monofunctional, detached and low-density type of erven with a sprawling pattern must be discouraged if not prevented. What this means is that the municipality should strive for multiple use developments with high densities so that the cost of providing services and infrastructure development will be lower while the impact will be high, and that is the cost-down value-up approach to development.

Another SPLUMA spatial implication for the Makhuduthamaga Municipality is its directive on good administration where there is emphasis on transparency, administrative efficiency and public participation in all processes relating to land administration and spatial planning. The implications are that starting with land development policies, plans, processes and strategies it becomes imperative that key stakeholders such as traditional leaders, leaders of Non-Governmental Organizations as well as the community must be part of the spatial planning and development processes. It is imperative that the municipality must involve key stakeholders in the development and approval of policies and plans dealing with land development as part of public participation process.

The implication is that this SDF, for it to attain credibility, must be subjected to a robust public participation process. SPLUMA principles dictate that Makhuduthamaga Municipality policies must be transparent and make it easy and efficient for land development applications to be processed rather than subjecting members of the community and investors to lengthy and difficult processes which may lead to such people deviating from the municipal policies or being discouraged to invest in Makhuduthamaga Municipality.

3.3 National Policy Context

3.3.1 National Development Plan, 2030

The National Development Plan (NDP) focuses on the critical capabilities needed to transform the economy and society. Specifically, the NDP assists government to confront the nine primary challenges by providing broad framework to guide key choices and actions that will assist government in its drive to grow the economy, create jobs, address poverty and establish social cohesion, namely:

- **Creation of jobs and improvement of livelihoods;**
- **Expansion of infrastructure;**
- **transition to low carbon economy;**
- **reversing the spatial effects of apartheid in urban and rural areas;**
- **Improving the quality of education, training and innovation;**
- **quality health for all;**

- **social protection;**
- **building safer communities;**
- **reforming the public sector.**

The NDP acknowledges the fact that apartheid fragmented spatial structure makes equitable provision of infrastructure difficult and this is also compounded by increased pressure on limited resources as a result of population increase.

On the other hand, economic growth has been slower than the demand for employment and as a result unemployment and poverty has become common features affecting communities. Affordable housing particularly rental and full ownership tenure is in huge demand but delivery has been significantly slow.

In Urban Areas, key NDP recommendations include the following:

- upgrading of informal settlements on suitable and well-located land by 2030;
- increased urban densities to reduce urban sprawl and costs;
- investments to shift jobs and investment to the urban townships on the peripheries;
- substantial investment in safe, reliable and affordable public transport and better co-ordination among the various modes of transport;
- a comprehensive review of the grant and subsidy regime for housing to ensure diversity in product and finance options and spatial mix;
- a focussed strategy on the housing gap market involving

- banks, subsidies and employer housing schemes;
- the development of spatial compacts.

On the other hand, in Rural Areas the NDP states that general productivity has declined due to increased gravitation of productive labour force to urban areas and less investment in rural areas compounded by limited skills and lack of infrastructure. In this case the NDP makes the following recommendations:

- innovative, targeted and better co-ordinated provision of infrastructure (including Information and Communication Technologies (ICTs)) and services provision supported by the spatial consolidation of rural settlements to enhance densities and associated service delivery;
- prioritising agricultural and rural development along mobility corridors to build local economies and contribute towards national food security;
- identification of non-agricultural opportunities such as tourism and mining especially “green” economy;
- promoting small-town development as nodes or core areas of rural development;
- implementing mechanisms to make land markets work more effectively for the poor especially women.

3.3.2 Comprehensive Rural Development Programme, 2009

In support of the Integrated Sustainable Rural Development Strategy (ISRDS), national government initiated the

Comprehensive Rural Development Programme (CRDP) in 2009. The CRDP differs slightly from previous government strategies in that it takes a proactive participatory community-based planning approach rather than an interventionist approach to rural development.

Essentially, the CRDP is aimed at being an effective response to poverty alleviation and food insecurity by maximizing the use and management of natural resources to create “vibrant, equitable and sustainable rural communities”.

The vision of the CRDP is to be achieved through a three-pronged strategy based on:

1. A coordinated and integrated broad-based Agrarian Transformation;
2. Strategically increasing Rural Development through infrastructure investment; and
3. An improved Land Reform Programme.

1. Agrarian Transformation

- Facilitating the establishment of rural and agro-industries, cooperatives, cultural initiatives and vibrant local markets.
- Increased production and sustainable use of natural resources by promoting farm-ing and related value chain development (exploring all possible species for food and economic activity).

2. Rural Development

- Access to community and social infrastructure, especially well-resourced clinics.
- Focusing on the development of new and the rehabilitation of existing infrastructure.
- Improving and developing infrastructure conducive to economic development – e.g. distribution and transportation infrastructure, agricultural infrastructure, water and electricity infrastructure, market and storage infrastructure, retail infrastructure, and telecommunications infrastructure.
- Improving and developing infrastructure conducive to social development – e.g. sanitation infrastructure, health infrastructure, sports and recreation infrastructure, and educational infrastructure (especially ABET centres).

3. Land Reform

- Promoting restitution, tenure reform, and redistribution in a sustainable manner.
- Increased access to land by previously disadvantaged people.
- Establishing Agri-villages for local economic development on farms.
- Up-to-date information pertaining to land claims.
- Providing reliable and efficient property (deeds) registration systems.

- Contributing to economic growth and housing development by providing government and private agents with essential information in order to engage in planning as well as economic transactions.
- Providing spatial planning information and services to local municipalities and other public or private institutions that may require these services for development purposes.

Although there are currently no planned CRDP initiatives in the Sekhukhune District Municipality, in general, and the Makhuduthamaga Local Municipality, in particular, the CRDP objectives are a critical yardstick through which interventions in the rural areas of Makhuduthamaga Municipality must be measured and thus inform the spatial vision and programs or interventions.

3.3.3 White Paper on national transport policy

The strategic objectives of the White Paper which are relevant to settlement-planning and which should be incorporated in future settlements are summarised below:

- Public transport travel distances and times for work trips should be limited to about 40 km, or one hour in each direction. This means that new settlements should be located no further than 40 km from the major work destinations. Further, as a general guideline, settlements should rather be located as close as possible to places of work and other urban activities so as to facilitate trips by bicycle or on foot. Where this is not possible,

settlements should be located close enough to work destinations to enable public transport vehicles to make two or more trips from the settlement to the work place or school in peak-hour periods.

- An objective has been set to promote the use of public transport over private car travel with an ambitious 4:5 ratio of public to private transport being set as a target. To assist in the achievement of this objective, settlement plans should have circulation systems or movement layouts which make all dwellings accessible to public transport

• Within the strategic objectives for improving accessibility, a target has been set of reducing walking distances to public-transport facilities to less than about one kilometre. Most people take about 15 minutes to walk one kilometre, so this objective should be regarded as a minimum. A far more desirable target for settlement-planning will be to place every dwelling within about seven minutes of a public transport boarding point (around 400-500 m).

- A final strategic objective which should be taken into account in settlement-planning is the object of promoting and planning for the use of non-motorised transport. Accordingly, settlements should be planned as places with a variety of urban activities, containing workplaces, schools, shops, recreational and community facilities, and dwellings. They should also have movement networks which permit direct pedestrian access to activities and public transport facilities

The White Paper also contains a number of policy statements that should be taken into account in settlement planning. These include the following:

- Land-development proposals (which include settlement plans) should be subject to a spatial policy framework within an agreed development planning process. This means that the settlement plan must be approved in terms of an integrated development plan (IDP), part of which is an integrated transport plan (ITP)³. Accordingly, settlement planners will, at the outset, need to consult transport authorities to ensure that the planned settlement will be complementary to the integrated transport plan (ITP), which includes public transport strategies and operations.
- Land-use development at local level (settlements) will be subject to development approval in conformity with integrated development plans.
- The settlement plan should be cognisant of the designated public transport corridors and nodes contained in regional, metropolitan or urban IDPs. Thus, it will be necessary to contextualise the settlement within such a spatial plan. Every new settlement will be either adjacent to, or distant from, a major line-haul public transport corridor (in rare cases the public transport corridor may even bisect a settlement). The form of the settlement should be strongly influenced by its spatial relationship to line-haul public transport corridors, modal interchanges and feeder corridors; in this regard, specific guidelines on planning principles and design standards will be provided in later sections. At this

junction, it is sufficient to note that in terms of the White Paper, settlement plans will need to give effect to the policy of locating employment activities within (or close to) the public transport corridors and nodes (interchanges). Likewise, the settlement plan should facilitate the provision of higher density and mixed land uses adjacent to public transport facilities.

- A high density of development is important for public transport, in that it supports differentiated public-transport provision and enhances operating efficiency

3.3.4 National Land Transport Transition Act (Act No. 22 of 2000)

This Act clearly demonstrates that transport planning and spatial planning cannot be divorced from each other.

As one of the most important pieces of legislation relating to transport and land use planning, the National Land Transport Transition Act puts more emphasis on corridor development as a spatial restructuring instrument in South Africa. The key legislative issues in the National Land Transport Transition Act impacting on corridor development are twofold:

- First, transportation functions must be integrated with functions in relation to land use, economic planning and corridor development.
- Second, transport plans must be developed so as to enhance the effective functioning of settlement. According to Marrian et al (2001), these transport plans

promote investment in corridors through the promotion of nodal development, in-filling, densification and the mixing of land uses

3.4 Provincial Context

3.4.1 The Limpopo Development Plan 2015-2019

The Limpopo Development Plan (LPD) (2015-2019) builds on the Limpopo Provincial Growth and Development Strategy (PGDS) and the Limpopo Employment, Growth and Development Plan (2009-2014). It is a comprehensive provincial development plan intended to take ad-vantage of Limpopo's comparative position, uplift and improve the general condition of all facets of development in the province.

The vision is to fulfil the potential for prosperity of Limpopo Province in a socially cohesive, sustainable, prosperous and peaceful manner . This will be attained by emphasizing participatory leadership aimed at promoting excellence and an entrepreneurial spirit, improved service delivery, facilitation of decent job creation and systematic poverty reduction.

The LDP aims to achieve the following provincial objectives relevant to Makhuduthamaga Municipality:

- Create decent employment through inclusive economic growth and sustainable livelihoods;
- Improve the quality of life of citizens;
- Prioritise social protection and social investment;

- Promote vibrant and equitable sustainable rural communities;
- Raise the effectiveness and efficiency of a developmental public service;
- Ensure sustainable development.

These provincial objectives and associated programmes of implementation are also critical and relevant to addressing Makhuduthamaga Municipality challenges and thus key programmes that must be considered in alleviating poverty, job creation, local economic growth and development and improvement of livelihoods.

The LDP spatial implications for Makhuduthamaga Municipality are further that the municipality should strive to promote sustainable development in all its development endeavours while promoting employment creation. There must be a balance between development and environmental protection to attain sustainability. Furthermore, the LDP gives directives to the municipality not to ignore rural areas in their development agenda thereby directing that this SDF takes into account provisions for economical and socially viable and sustainable rural communities in line with the National Spatial Development Plan (NSDP).

The Limpopo Province's ambitious industrial development programme, as one of the priority growth sectors has a direct bearing on the Makhuduthamaga Municipality's economy, is a plan to establish a Special Economic Zone in Burgersfort within the

Sekhukhune District Municipality and this initiative will have ripple effects on the Makhuduthamaga Municipality's economy.

3.4.2 Limpopo Province Spatial Development Framework, 2016

A SPLUMA compliant SDF for Limpopo Province was adopted in 2016 and has a direct bearing on the Makhuduthamaga Municipality's SDF.

The strategic vision of the Limpopo Province SDF “...envisions a provincial spatial structure where the natural environment and valuable agricultural land in the rural areas are protected for future generations, with a strong, diverse and growing economy focused around a range of nodal areas and that offers its residents high quality living environments and good job opportunities in a sustainable manner.”

The following development objectives have been set to attain the Limpopo Province SDF, namely:

- Capitalize on the Province's strategic location within the SADC region;
- Improve regional and local connectivity to facilitate the movement of people, goods and services;
- Provide a strategic and coherent rationale for targeted public sector investment, including engineering, social and economic infrastructure, to optimize service delivery;
- Encourage urban and rural spatial restructuring as a

necessity;

- Aggressively protect and enhance the province's natural resources, including scarce fresh water sources and high biodiversity landscapes;
- Guard valuable agricultural land as a scarce resource and national asset;
- Consolidate and enhance the province's ecotourism product; and
- Encourage and institutionalize the sustainable development of its massive mineral potential (and encourage green economy initiatives).

Limpopo Province SDF Implications for Planning in Makhuduthamaga Municipality

The Limpopo Province SDF (LP SDF) sets out Development Principles to achieve the envisaged spatial framework. These development principles are briefly discussed below as well as their importance for Makhuduthamaga Municipality:

Development Principle 1: Define and protect a Provincial Regional Open Space System which ensures that ecosystems are sustained and natural resources are utilized efficiently. Makhuduthamaga Municipality has large areas affected by the proposed open space system including protected areas (nature reserves) and critical biodiversity areas.

Development Principle 2: Facilitate efficient spatial targeting

through the identification of a range of provincial, district, municipal and rural nodal points to serve as focal points for investment and service delivery.

The LPSDF includes levels of growth points in terms of the nodal hierarchy of settlements in the Limpopo Province. In the Makhuduthamaga Municipality while no provincial growth points have been identified there are growth and population concentration points and rural development focus areas in Jane Furse, Apel Cross, Glen Couwie, Schoonoord (Sekhukhune), Moratiwa and Phokoane. Notwithstanding the aforesaid, one area that should have been targeted from the legacy of service delivery clustering is Nebo. In line with this principle, the project team will explore feasibilities of resuscitating Nebo as a place of strategic importance in this revised Makhuduthamaga Municipality's SDF.

Development Principle 3: LPSDF also supports the national government's "road to rail" imperative, advocating utilization of rail freight. In respect of Makhuduthamaga Municipality, the principle is currently not applicable. However, the principle may become relevant when the mooted rail line from Polokwane to Burgersfort is developed.

Development Principle 4: Direct engineering infrastructure investment towards the priority nodal points where the majority of economic activity and human settlement will occur. The bulk of Makhuduthamaga infrastructure services are targeted at Jane Furse, Moratiwa, Schoonoord, Phokoane and Apel Cross nodes,

as well as Glen Couwie which has a lot of economic activities and unprecedented human settlement expansions, albeit the latter needs to be managed.

Development Principle 5: Prioritize consolidation of community infrastructure at the identified nodal points and in line with the concept of multi-purpose Thusong Centres or Rural Development Centres in Rural Nodes.

Development Principle 6: Create conditions conducive to development in multi-functional business areas and implement Urban Revitalization Strategies in areas where required. This principle is very relevant to Jane Furse and Phokoane which encounter pockets of decay and will require serious urban renewal initiatives.

Development Principle 7: Optimize the utilization of agricultural potential of Limpopo Province to provide sustainable livelihoods to marginalized communities in rural areas in partnership with commercial farms. This principle is supported by the Makhuduthamaga Municipality's IDP (2016-2021) and SDF, 2015 which notes the under exploitation of Makhuduthamaga Municipality's agricultural potential.

Development Principle 9: Promote mining activity and associated job creation potential in an environmentally sustainable manner. The Makhuduthamaga Municipality is also strategically connected to mining activities in the Fetakgomo Tubatse Local Municipality

through the east-ern limb of the Bushveld complex and as a result it stands to be impacted upon by massive job creation potential from such mineral resources.

Development Principle 10: Address industrial sectoral diversification by way of area specific investment in high value production and value-added technologies and industries.

Development Principle 11: Sustainable Human Settlement in urban and rural Limpopo Province

This proposed revised SDF for the Makhuduthamaga Municipality must be aligned to the Limpopo Province SDF and encompass the Limpopo Province SDF principles in as far as they are relevant to the spatial situation of the municipality.

This revised SDF takes into account the strategic location of the Makhuduthamaga Municipality within a national, provincial and district perspective and uses roads and activity corridors and nodes as structuring elements that define the development of the Makhuduthamaga spatial structure.

3.5 District and Municipal Context

3.5.1 Sekhukhune District Municipality Integrated Development Plan, 2016-2021

The Sekhukhune District Municipality IDP provides an overarching service delivery planning, implementation and

review mechanism for all settlements found within the four (4) constituent municipalities of the district municipality. According to the Sekhukhune District Municipality IDP, the critical strategic objectives for the Sekhukhune District Municipality are as follows:

- To ensure the reduction of water and sanitation backlog;
- To ensure improved sustainable provision of quality water;
- The need to improve internal controls and clean governance;
- To ensure zero tolerance of fraud and corruption;
- To ensure improved capacity within the municipality by attracting appropriate skills for the Infrastructure and Water Services department and the Budget and Treasury Office;
- Improving sound financial management, financial health or liquidity of the municipality by focusing on expansion of tax base of the municipality and improved customer relations;
- Promote job creation, Small, Medium and Micro Enterprises (SMMEs) empowerment and enhance farmers' production within the district; and
- Exploit competitive and comparative economic advantages within the district.

The Sekhukhune District Municipality IDP notes and confirms that settlement patterns of the four constituent municipalities within the district municipality, Makhuduthamaga Municipality included, reflect Apartheid spatial patterns by showing settlement sprawl, unsustainable and disconnected settlement. As a result, the costs of providing the much-needed infrastructure to the area is very

expensive. This is the main reason for a movement of people to nodal and growth points where service delivery is improved and better economic opportunities.

According to the Sekhukhune District Municipality's IDP, there are competing land uses for the same scarce land within the district municipality and such competing land uses include mining, agriculture, tourism and settlement development. Despite the competition, the IDP notes that the dominant land use pattern within the district municipality is commercial and subsistence farming.

Another thorny issue is the challenge of governance on land use management issues. The District Municipality IDP places the challenge right at the door of the dual system of governance between the traditional authorities and government. Both allocate land with government using a predetermined plan and policy while traditional authorities have their own systems of land governance and allocation. This is exacerbated by the resistance of traditional authorities to SPLUMA and its institutional arrangements for land allocation.

General Challenges of land use and economic growth in the Sekhukhune District Municipality

Increased number of informal settlements;

Inadequate land for development;

Land claims processes take long;

Security of tenure;

Dispersed rural settlements making bulk infrastructure provision

expensive;

Sprawled development;

Incomplete RDP houses.

For the Makhuduthamaga Municipality to develop, adopt and implement an effective and credible SDF, the above mentioned challenges identified from the Sekhukhune Development Municipality IDP, as far as they relate to Makhuduthamaga Municipality, must be addressed holistically.

3.5.2 Makhuduthamaga Municipality Spatial Development Framework, 2015

In terms of the Makhuduthamaga Municipality SDF 2015, the municipality is characterized by a dispersed, fragmented and low density settlements situated on State or tribal land. This pattern of development created a spatial pattern that is social and economically unsustainable.

This spatial pattern may be rectified by designing strategies that strive towards the principles of integration, sustainability and efficiency and create viable settlement patterns. The following categories of Strategic Development Areas have been classified in terms of the Makhuduthamaga Municipality SDF 2015:

The Makhuduthamaga Municipality SDF, 2015 classified settlements of the Municipality into the following three categories:

- I. Primary Activity Nodes and first order settlements;
- II. Second order settlements; and
- III. Third order settlements.

For the first order settlements, the Makhuduthamaga Municipality SDF 2015, the Sekhukhune District IDP and the Makhuduthamaga Municipality IDP identified the following growth points:

- I. Jane Furse (Also a District Growth Point);
- II. Apel Cross; and
- III. Glen Cowie.

For second order settlements, the Makhuduthamaga Municipality SDF identified settlements such as Vierfontein/Takataka, Moratiwa, Tshehlwaneng/Magneetshoogte, Schoonoord, Ga-Masegwane, Ga-Mogashoa, Manganeng, Tsatane. This MSDF retains the classification and hierarchy of settlements as contemplated in the 2015 SDF. The analysis of the built environment does not warrant a significant shift in settlements classification. The guidelines for the different categories will be outlined in later sections of this MSDF.

Third order settlements cover the rest of villages within Makhuduthamaga Municipality.

The Makhuduthamaga Municipality SDF 2015, taking note of the inputs from the public participation processes, as well as from the status quo analysis of the municipality summarized identified the following key issues and developed strategies and proposals to deal with them:

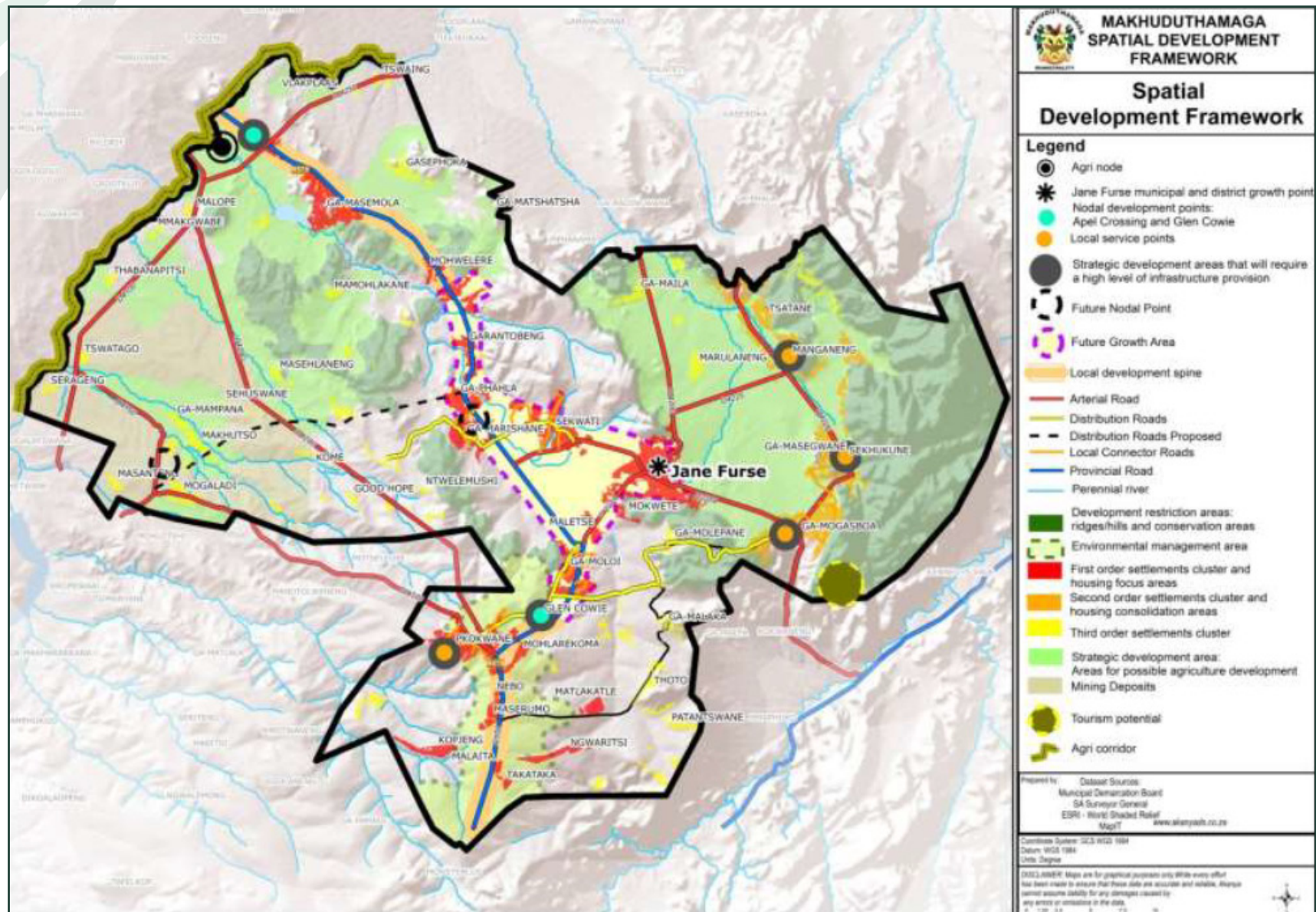
- **Issue 1:** Dispersed, unsustainable rural settlements without a consolidated, overall spatial structure.
- **Issue 2:** Lack of formalized access to land.
- **Issue 3:** Lack of basic services and access to community facilities.
- **Issue 4:** Low levels of economic development, resultant socio-economic hardship and a weak economic base.
- **Issue 5:** Not optimising on sustainable use of, and not protecting natural resources including agriculture land.

Based on the above challenges, the Makhuduthamaga Municipality SDF 2015 adopted the following vision:

“Makhuduthamaga, a place that promotes integrated growth for sustainable service delivery for all”

Through the adopted vision, the Makhuduthamaga Municipality developed itemized strategies to deal with sprawl, fragmented and inefficient settlements, illegal land use, and policy development issues and related.

However, the level of implementation of the Makhuduthamaga Municipality SDF programmes appears to be unimpactful as there are no visible changes to the status quo of the municipality on issues raised above



Map 5: 2015 Spatial Development Framework Map

3.5.3 Jane Furse Precinct Plan 2020

In the implementation of proposals from the MLM SDF 2015, the municipality commissioned the development of the Jane Furse node precinct plan. The Jane Furse precinct plan was developed in 2020 and it notes the following as spatial challenges facing the node, namely, fragmentation and sprawl, limited engineering services, tenure issues, conflicting land claims and poor land use and administration.

In the Jane Furse Precinct plan analysis into the current form of node six broad types of pre-cincts were identified: residential, civic (municipal), commercial and health (new Jane Furse Hospital). However, due to the character of the area and its size, a hybrid kind of approach, which attempts to integrate the various sub-precincts will be followed.

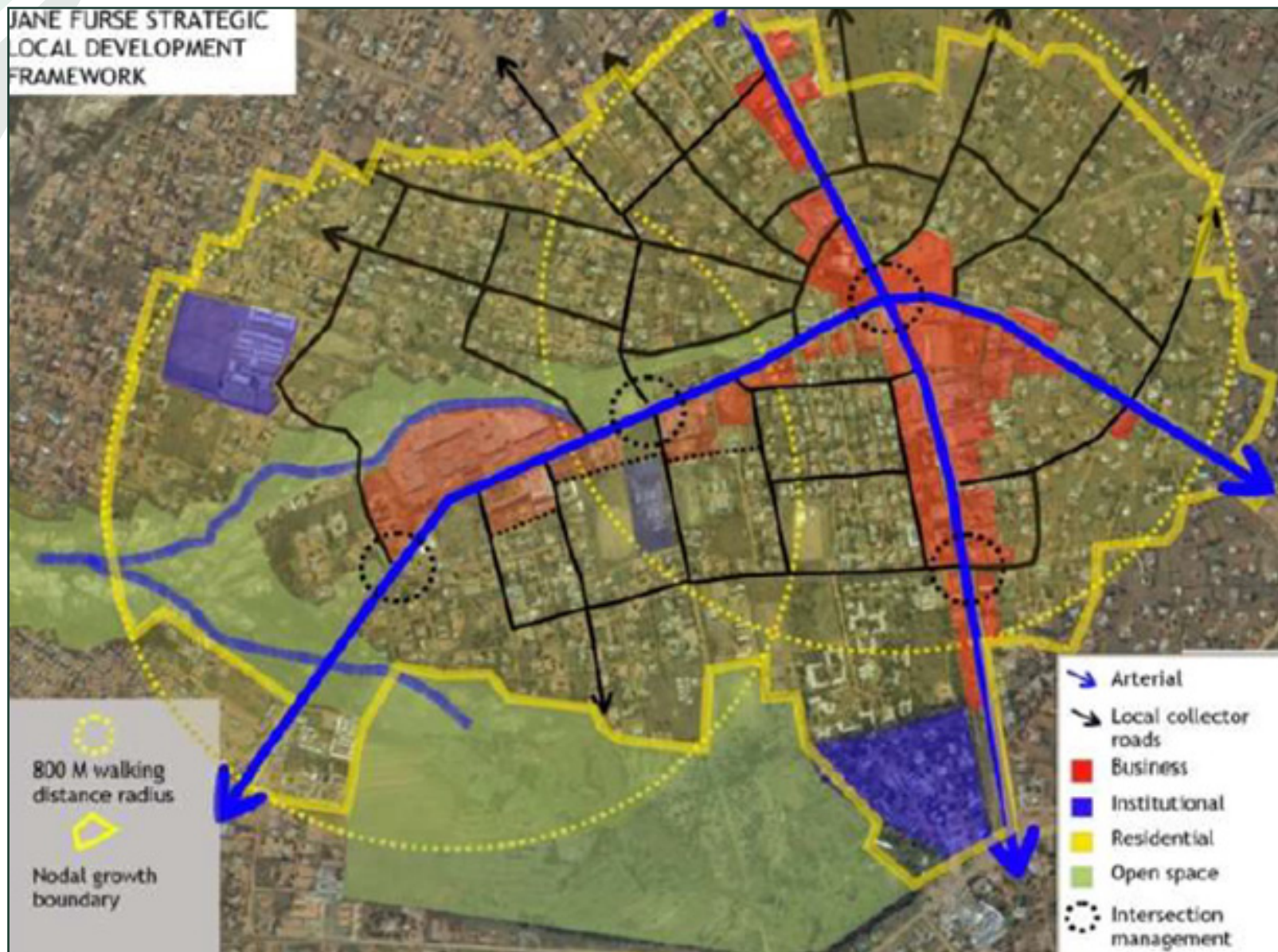
According to the Jane Furse precinct plan the following principles were followed:

- The desired urban form around the central business district must be compact, medium and high-density residential and mixed use, while low density residential development must be promoted and enforced in the outlying areas.
- Land Usage in the central business district must be geared towards employment opportunities premised on local centre with commerce and retail.
- Oriented towards the future but based on current

developmental realities

- Community development and people-centered
- Focused on phased implementation and a flexible urban design
- A focus on a walkable design with pedestrian movement as a high priority; the ease of walkability will enable the growth of place and community.
- A local node containing a mixture of uses in close proximity including, residential, retail and civic uses.
- Residential buildings will generally be within a comfortable 10-min walk of the commercial node
- The mixed use and commercial development must provide levels of development density and intensity that support public transport.
- Creation of a transport network hub, with strategic connections for people living in the area. (source: Jane Furse Precinct Plan 2020)

In order to guide the proper spatial development of the Jane Furse node, the precinct plan proposed various sub precincts such as residential, industrial (light and heavy), recreational, civic, commercial and mixed use. This was done in line with SPLUMA principles.



Map 6: Jane Furse precinct

3.5.4 Schoonoord Precinct Plan

A precinct plan is also in place for Schoonoord which is located 12 kilometers east of Jane Furse. The node is found in wards 13 and 14 of MLM. According to this precinct plan, Schoonoord is characterized by apartheid's legacy of entrenched patterns of spatial injustice with high levels of poverty, limited employment opportunities in agriculture and poor land administration. Huge infrastructure backlogs characterize the area as there is poor provision of engineering services.

The Schoonoord precinct plan proposes the following strategies:

- **Strategy 1:** Mixed-Use zoning along the D2219 (Jane Furse/Steelpoort road) and the Schoonoord main road
- **Strategy 2:** Improvements of Movement Networks
- **Strategy 3:** Residential Zones improvements e.g infrastructure provision
- **Strategy 4:** Community Facility Zone (Sports and Recreation) development
- **Strategy 5:** Industrial Zones establishment
- **Strategy 6:** Agricultural (subsistence) Zones development

3.5.5 Phokoane Precinct Plan

The Phokoane Precinct plan also identifies almost similar spatial challenges mentioned in the Jane Furse precinct above. The report indicates challenges such as spatial backlog which include, underserviced infrastructure, informal houses, lack of water provision and inaccessibility to basic services. It also has a high number of competing land claims.

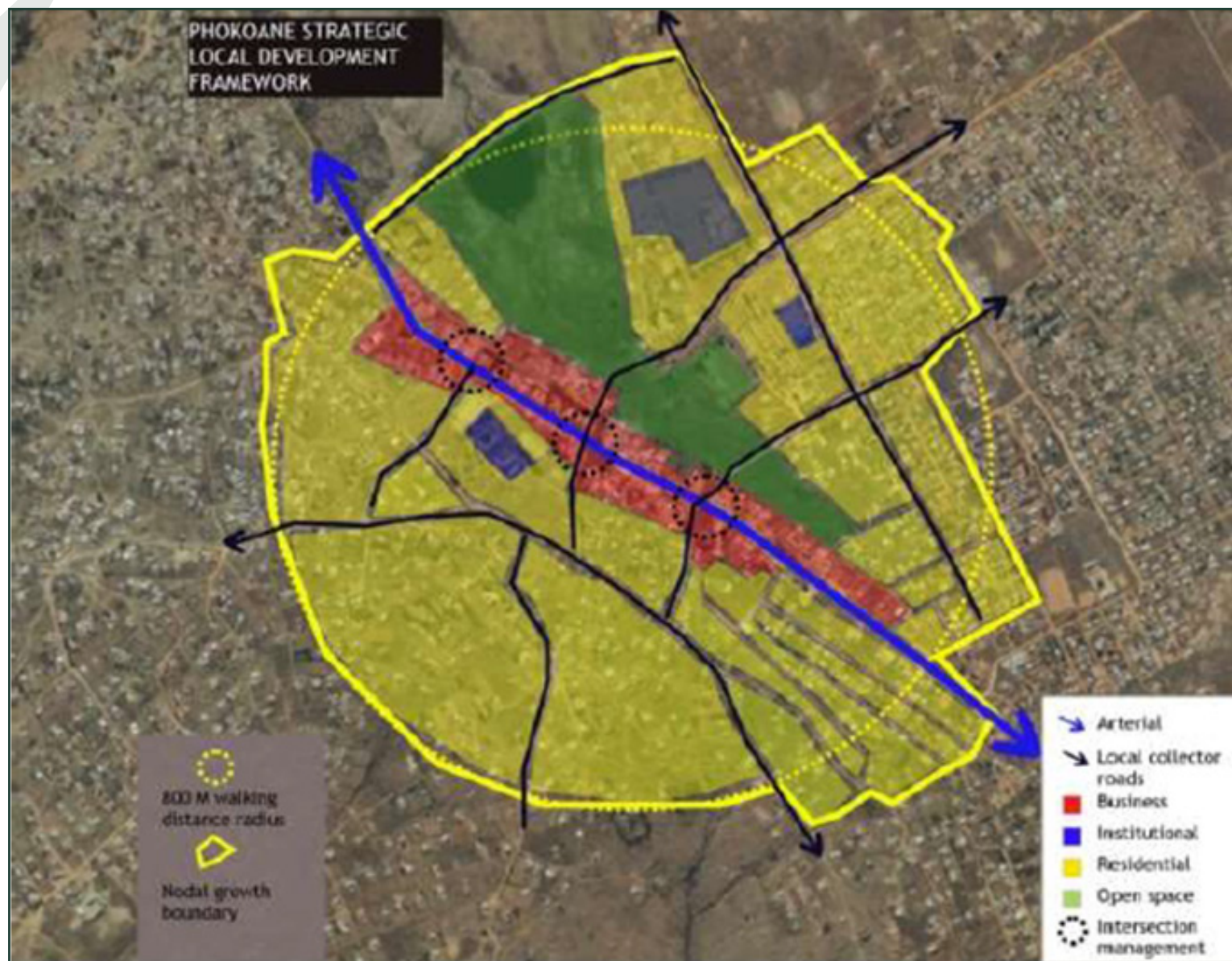
The Phokoane precinct plan proposes the development of mixed development along the R579 road, improvement of road and transport movements and infrastructure with more emphasis on the R579 road, provision of industrial and agricultural precincts.

3.5.6 Apel Cross Precinct Plan

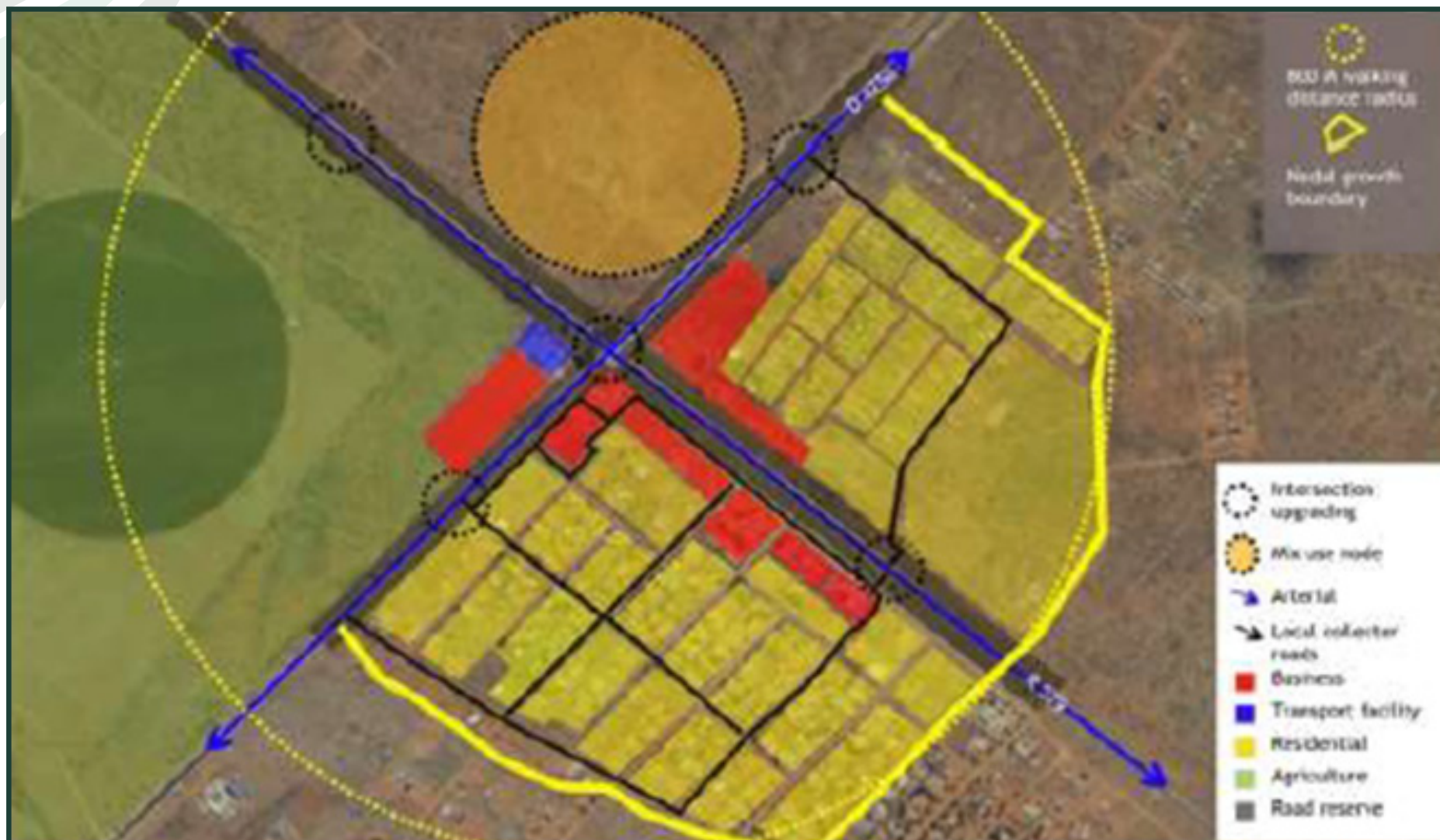
The Apel Cross precinct plan reiterates the spatial challenges identified in the MSDP 2015, the IDP 2016-2021, as well as those from other precinct plans mentioned in this report. Challenges of low-density sprawl, fragmented and dispersed settlement development and land ownership uncertainties are reiterated in this precinct plan.

The plan notes the strategic location along the R579 road as well as its connectivity and access to the provincial capital city of Polokwane and further makes the following proposals for the improvement of the node:

- Improvement of transport and movement networks
- Development of an agricultural node on the northern part of the node to capitalise on the Ollifants River water source
- Improvements in residential zone development
- Agro-processing facilities



Map 7: Phokoane precinct



Map 8: *Apel Cross Precinct Plan*

3.5.7 Makhuduthamaga Municipality Integrated Development Plan 2016-2021

The Makhuduthamaga Municipality has a fourth generation IDP compiled in compliance with Chapter 5 of the Municipal Systems Act.

“A Catalyst of Integrated Community Driven Service Delivery”

The mission of the municipality is:

- o to strive towards service excellence;
- o to enhance robust community-based planning;
- o to ensure efficient and effective consultation and communication with all municipal stakeholders.

According to the Makhuduthamaga Municipality IDP, the following constitute priorities for the municipality:

- ☐ To ensure acquisition and sustainable use of land and promote growth and development.
- ☐ To reduce infrastructure and service backlogs in order to improve quality of life of the community by providing them with roads & storm water, bridges electricity and housing.
- ☐ To create and manage an environment that will develop stimulate and strengthen local economic growth.
- ☐ To provide sound and sustainable management of the financial affairs of Makhuduthamaga Municipality.
- ☐ To promote good governance, public participation,

accountability, transparency, effectiveness & efficiency.

- ☐ Improve internal and external operation of the municipality and its stakeholders.

The first three of the six priorities have a huge bearing on spatial planning and land use management for the Makhuduthamaga Municipality and ultimately the SDF.

The Makhuduthamaga Municipality IDP also identified the following challenges that have a bearing on the development and successful implementation of the Makhuduthamaga Municipality's SDF:

- ☐ Poor land use management.
- ☐ Inadequate land ownership.
- ☐ Misalignment between the MLM and tribal authorities in the demarcation and allocation of sites.
- ☐ Fragmented and over sprawling settlement patterns that are unsustainable to manage.
- ☐ Policy gaps on land use management.
- ☐ Insufficient infrastructure to support sustainable human settlements.

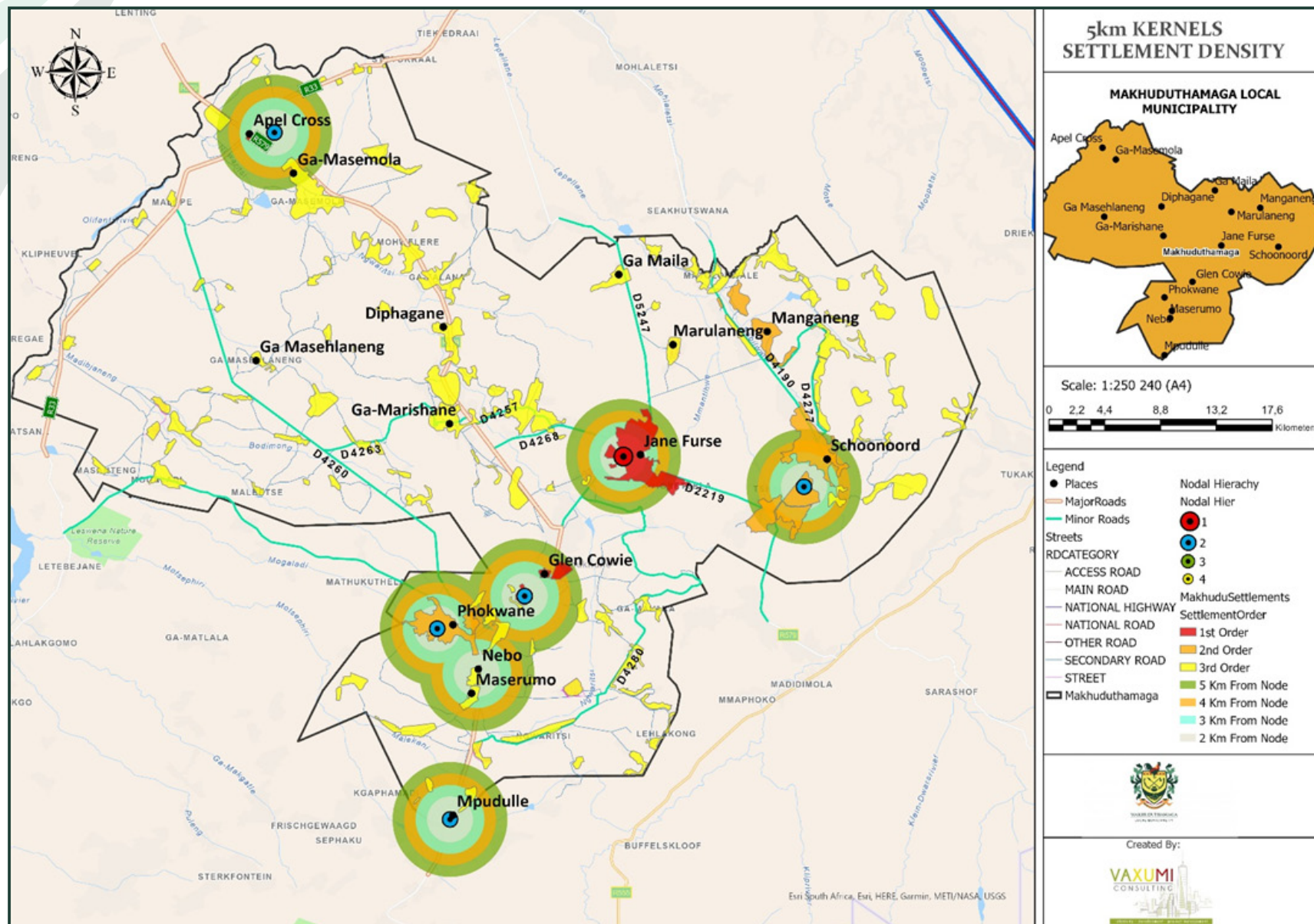
The observation from the project team, coupled with desk top studies, is that despite the adoption of the Makhuduthamaga District SDF in 2015 with noble and achievable targets very little has been done by all authorities involved to break away from the past practices of curbing settlement patterns inherited from the pre-SPLUMA dispensation.

Key Spatial Issues and Challenges

The documents revisited revealed similarities of spatial issues and challenges that most South African municipalities, especially the former homelands and independent states municipalities, face on a daily basis.

As such, the project team identified the following interrelated priority issues and challenges derived from strategic documents relevant to the Makhuduthamaga Municipality:

- Access to land for development and economic enhancement;
 - Incomplete land restitution processes and their implication on access to land for development;
 - Inefficient and unsustainable Spatial Structure. Makhuduthamaga Municipality is characterized by a dispersed, fragmented and low-density settlements impact on sustainable service delivery and economic development;
 - Poor implementation and enforcement of land use management system including by-laws and policies;
 - Lack of collaboration amongst various authorities to have a common vision on land administration and development
 - Insufficient infrastructure development: The Makhuduthamaga Municipality is characterized by poor road conditions and poor transportation linkages between settlements and poor transport system impact on access between settlements and service delivery; furthermore, sustainable water supply to all communities reflects challenges that may derail the successful realisation of sustainable and efficient settlement patterns;
- Unintegrated human settlements and poor housing delivery especially low-cost housing due to limited state or municipal land, limited infrastructure especially in identified major nodal areas;
 - Non-existent and/or poorly developed tourism development facilities and initiatives in terms of infrastructure such as proper road linkages, facilities, and marketing of same etc;
 - Poor environmental protection and conservation of natural resources and the environment in general including land for agricultural development;
 - Inadequate and poor standard social amenities;
 - Poor local economic development and limited job opportunities as a result of the following:
 - o limited access to infrastructure such as water, electricity, proper roads and network, access to trade markets, lack of proper skills and training facilities and funding;
 - o poor development of available natural resources such as mining, agriculture and tourism;
 - o limited job opportunities as a result of low investment opportunities in the municipality;
 - o Poor Information and Communication Technology. The unavailability of basic cell phone coverage and latest 3G & 4G coverage is a serious hamper of economic development, innovation and technological advancement.



Map 9: 5km kernels for settlement density around nodal points

3.6 Conclusive Summary

The above-mentioned identified challenges and issues should not be viewed from a position of pessimism. Makhuduthamaga Municipality should be viewed as a glass half full, not half empty and this will provide an opportunity for key role players-working with the municipality's communities and experts from various fields to turn the situation around towards the desired vision of the municipality which is "A Catalyst of Integrated Community Driven Service Delivery"

Taking cue from lessons learnt from developed similar municipalities in the country, as well as those in other developed countries such as East Asia which found themselves in similar situations but were able to turn the tide, Makhuduthamaga Municipality can leverage on the abundance of natural resources which are not being optimally leveraged (lack of infrastructure, fiscal capacity, political will, etc.); one of the opportunities the municipality can take advantage of is the availability of enabling environment through enablers such as legislative and policy instruments at its disposal.

However, an enabling environment alone will not achieve the ambitious, but achievable plans of this SDF. There is a need for political will and a dedicated capable administration, supported by communities of Makhuduthamaga Municipality.

3.7 Makhuduthamaga Municipality Spatial Vision

Section 12 of the SPLUMA requires a municipality to formulate a Vision relating to Spatial Development Framework based on policy directives, key issues, challenges and opportunities identified in the municipal area including inputs from various stakeholders.

Section 12, read together with the Constitution of the Republic of South Africa of 1996 (the Constitution) requires that a vision must be informed by an analysis of the socio-economic, spatial, and infrastructural realities of the study area, including an assessment of where gaps exist in the provision of basic services.

Also, the Municipality is required to assess its own capacity to redress inequities and to meet basic needs, and to gear itself towards institutional transformation with a view to improving its organisational efficiency and effectiveness in meeting those needs.

In the adoption of the Makhuduthamaga Municipality SDF 2015, a spatial vision was developed and adopted to drive the municipality's spatial development imperatives in line with section 12 of SPLUMA. The same vision as adopted was aligned with the overall municipal vision of being a "A Catalyst of Integrated Community Driven Service Delivery".

The adopted spatial vision of the Makhuduthamaga Municipality SDF reads as follows:

“Makhuduthamaga, a place that promotes integrated growth for sustainable service delivery for all”

This SDF review upholds the same vision be continued with as the issues identified during the development of the 2015 SDF are still in place as reflected in the current IDP which is concluding its five-year cycle as well as observations from the field visits conducted.

This vision is up-held largely because most of the issues and challenges identified by the 2015 SDF remain evident even in the current SDF review. It is therefore not the intention of this SDF review to reposition the development intent of the Municipality.

SPATIAL ANALYSIS OF THE CURRENT REALITY

4 Study Area

The spatial analysis of the current reality is presented with the

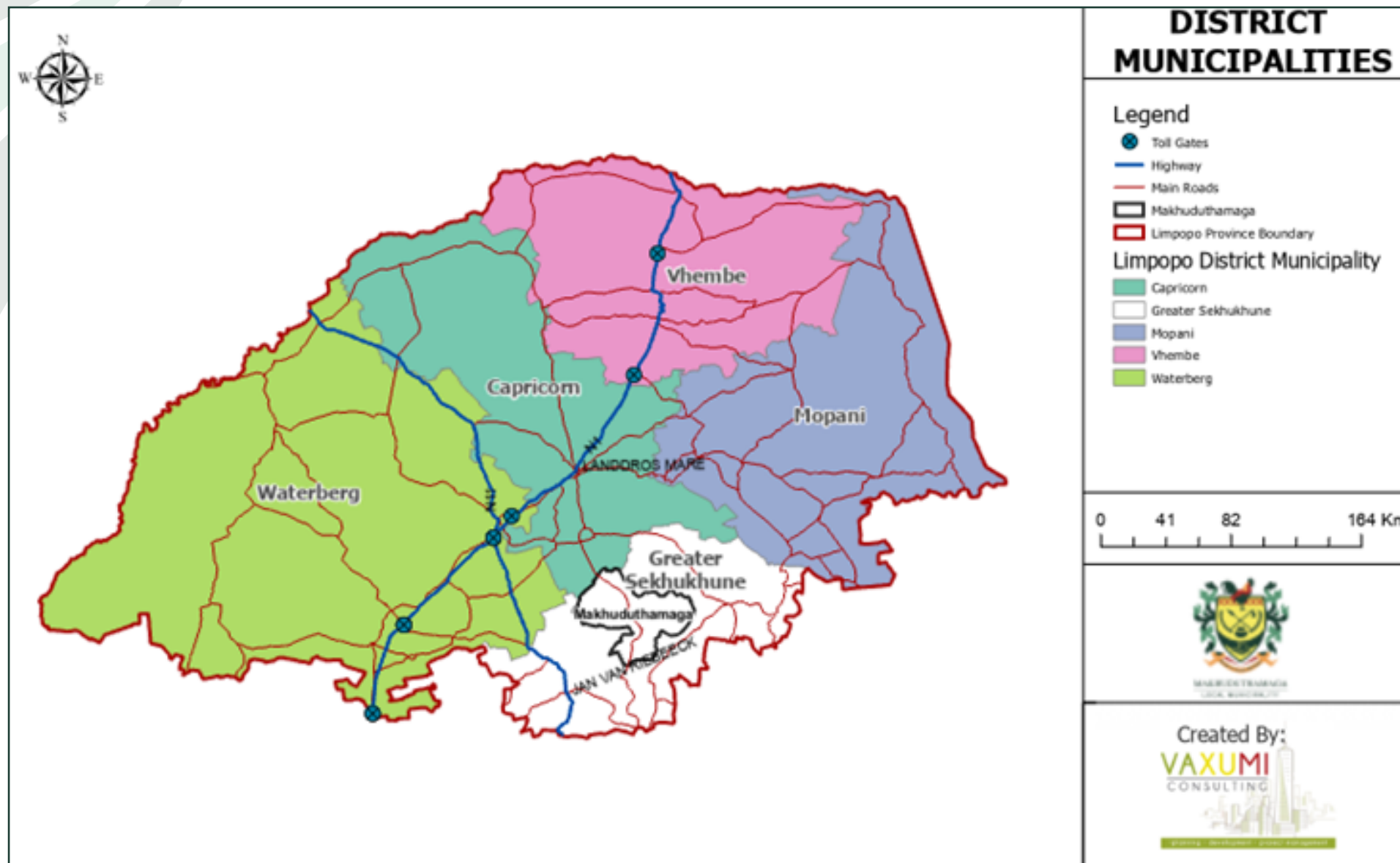
reiteration to some of the information presented in chapter 2 of this report (municipal overview) in order to allow the smooth flow of information in this chapter.

4.1 Regional Context

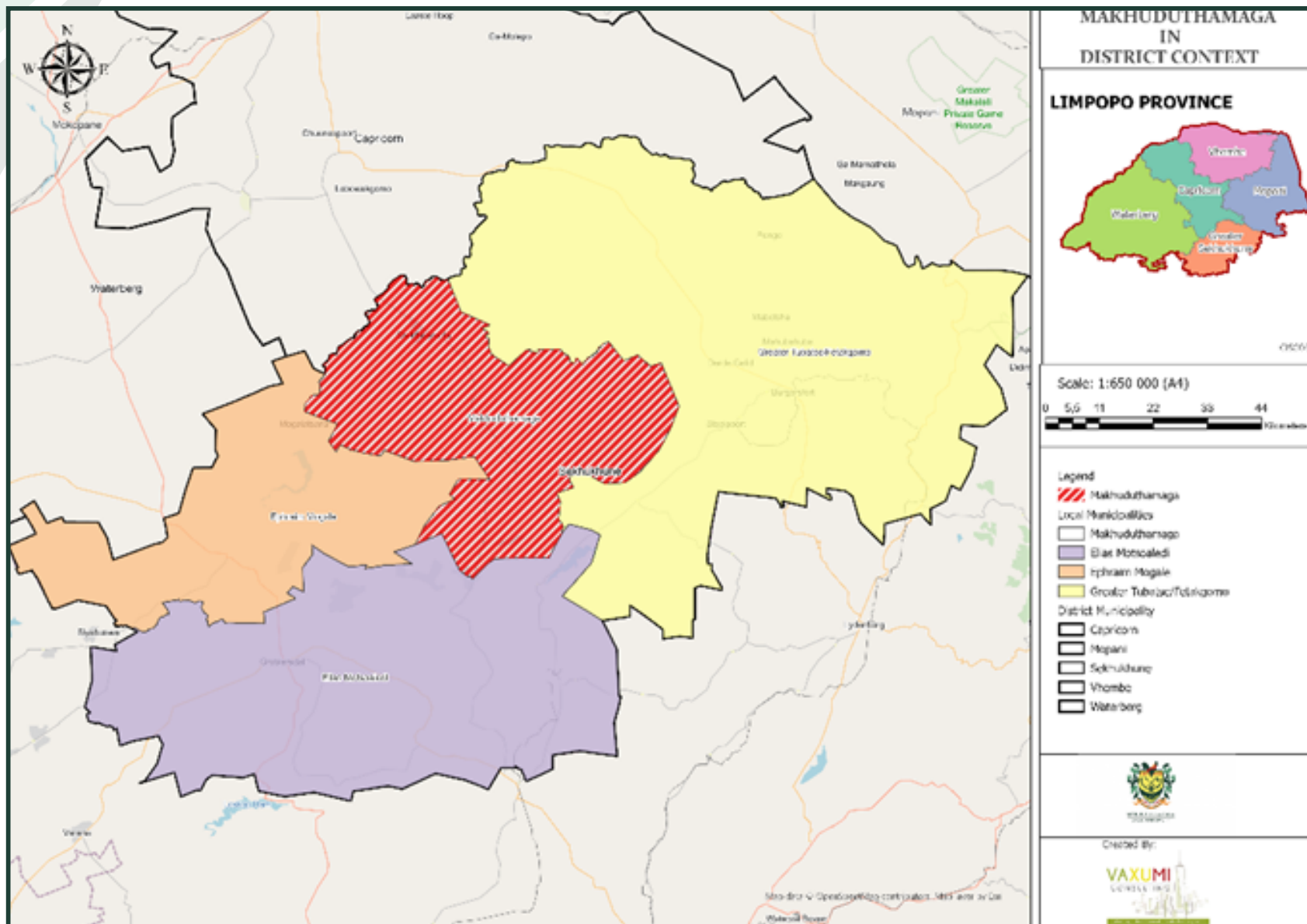
Makhuduthamaga Municipality is one of the four local municipalities located within the Sekhukhune District Municipality of the Limpopo Province.

Map 1 shows the location of Makhuduthamaga Local Municipality which is a Category B Municipality established in terms of the Municipal Structures Act within the provincial context.

Map 2 shows the Makhuduthamaga Local Municipality in a district context as one of the four municipalities constituting Sekhukhune District Municipality (alongside Elias Motsoaledi Local Municipality, Fetakgomo-Tubatse Local Municipality, and Ephraim Mogale Local Municipality).



Map 1: Makhuduthamaga Municipality Provincial Context



Map 2: Makhuduthamaga Municipality District Context

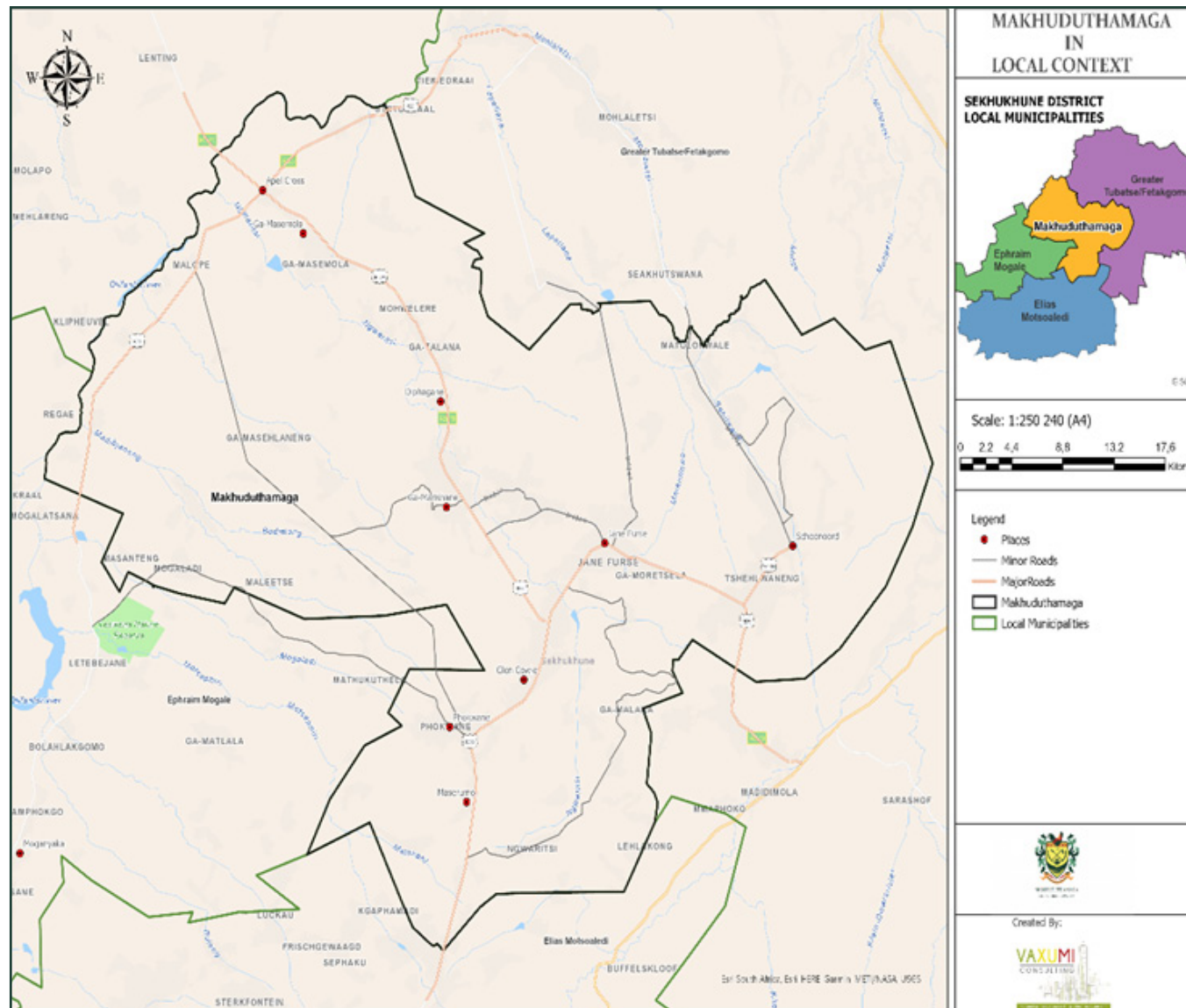
Makhuduthamaga Municipality covers an area in extent of about 211 886 ha of land and constitutes the largest (16%) section of the Sekhukhune District Municipality. The Municipality is bordered to the north by Capricorn District Municipality through Lepelle Nkumpi Local Municipality, to the east by Fetakgomo Tubatse Local Municipality, to the south by Elias Motsoaledi Local Municipality, to the west by Ephraim Mogale Municipality.

The central positioning of the Makhuduthamaga Municipality within the Sekhukhune District Municipality makes it a strategic area of choice for the location of regional offices and other organs of development in the region. Jane Furse, the head quarter of

Makhuduthamaga Municipality is located 347 km North East of Johannesburg; 247km North East of Pretoria; 189 km South East of Polokwane; and 70 km South West of Burgersfort.

4.1.1 Makhuduthamaga within a Local Context

Map 3 shows towns and villages constituting Makhuduthamaga Municipality comprising 31 wards. Settlements comprising the 31 wards of Makhuduthamaga Municipality are mentioned in Table 1 to this SDF. Generally, the majority of settlements in the municipality are rural areas in nature with a noticeable urban mix in Jane Furse town.



Map 3: Makhuduthamaga Municipality within a local content

WARD	SETTLEMENTS
1	Ga Tshehla, Hlalanikahle, Kutupu, Ratanang Kutupu Extension
2	Phokoane, Mabintane, Mogudi
3	Mokgapaneng, Makoshala, Phokoane(Malegale Phokoane (Mapaeng) Phokoane (Ramabele Malatji,Lefakong,Skotiphola and Mashifane, Phatametsane, Masioneng / Skotiphola
4	Rietfontein, Vierfontein A,B,C, Katlegong (Vierfontein D, Vierfontein E (Mashemong section)
5	Maserumole Park, Mohlwarekoma, Leeukraal, Matlakakatle A and B
6	Eenzaam Trust, Patantshwane B, Patantshwane A, Eenzaam Kgoloko, Mare, Ga-Mmaboki, Ga-Diago
7	Thoto, Malaka, Ntoane, Manthlanyane, Manotong, Dikatone, Setebong,
8	Mathousand / Hlahlane, Pelepele Park / Maswiakae, Mochadi, Brooklyn, Leokana, Caprive
9	Riverside, Morgenson, Magapung
10	Mogorwane, Moripane A and B, Phushulang, Ngwanamatlang, Moloi
11	Molepane, Mokwete, Vergelegen A
12	Moretsele, Makgeru. Ratau, Makgane, Senamela, Maphopha
13	Mashengwaneng, Mogashoa Manamane, Mogashoa Ditlhakaneng, Phase Four, Mabonyane
14	Sekele, Moela, Kgopane, Maloma, Seopela, Legapane, Tshesane, Dingoane, Matiloaneng B, Mabule, Tsopaneng, Stocking
15	Mohlakaneng / Tswele, Houpakranz, Mohlake, Magolego, Maila Mapitsane, Dlamini
16	Dihlabaneng, Mashegwana Legare, Kotsiri, Mashegwana Tswaledi
17	Manganeng, Ramphelane, Mashite, Mathibeng (Ga Toona), Kgolane

18	Jane Furse RDP, Vergelegen B, Dicheoung, Moraba
19	Madibong (Malaeneng, Sechabeng, Ga- Mokgwatsane, Sekhutlong and Masiolong), Mamone (Matsoke), Vergelegen C, Mashishing
20	Tisane, Mamone (Rantho), Magolaneng, Mamone (Manyeleti), Mamone Centre
21	Mamone- Matsoke, Mamone – A1 Bothas (Ga-Mohlala), Mamone – A2 (Ga-Mohlala), Mamone – A3 (Ga-Manyaka), Mamone –A4 (Tanzania)
22	Malegale (Sebitje), Sebitjane, Lekgwareng, Tjatane, Tjatane Extension, Madibaneng (Matolokwaneng), Greater Madibaneng
23	Maila Segolo, Dinotji, Mathibeng, Marulaneng, Mashupye, Maseleseleng / Sebitlule
24	Diphagane, Phaahla, Masehlaneng, Lobethal, Mamoshalele, Porome, Mamatjekele
25	Maololo, Mashabela (Malegasane), Mohwelere, Molebeledi, Machacha, Ga Selepe, Ga Marodi, Mapulane / Talane, Mahlakanaseleng
26	Mathapisa, Mampane Thabeng, Kgarethuthu, .Soedtveld, Marishane, Bothaspruit), Makgophong / Porome
27	Mabopane, Manare, Mohloding, Masemola (Moshate), Thabampshe Cross extension (Mabopane), Morareleng, Police station extension
28	Thabampshe, Tswaing, Ga- Maphutha, Wonderboom, Maroge, Mahubitswane, Mahlakole, Vlakplaats
29	Malope, Molelema, Mahlolaneng, Mashoanyaneng, Maraganeng, Pitjaneng, Machasdorp, Mphane, Makgwabe, Moji / Sekale / Apel cross
30	Krokodile, Setlaboswane, Legotong, Serageng, Masanteng, Mogaladi,
31	Kome, Ntshong, Mmotwaneng, Masakeng, Mangwanyane, Vlakplaats, Eenkantaan, Motseleope Makhutso, Semahlakole / Sehuswane

Table 1: Municipal Wards and Settlements

4.2 Institutional Structure

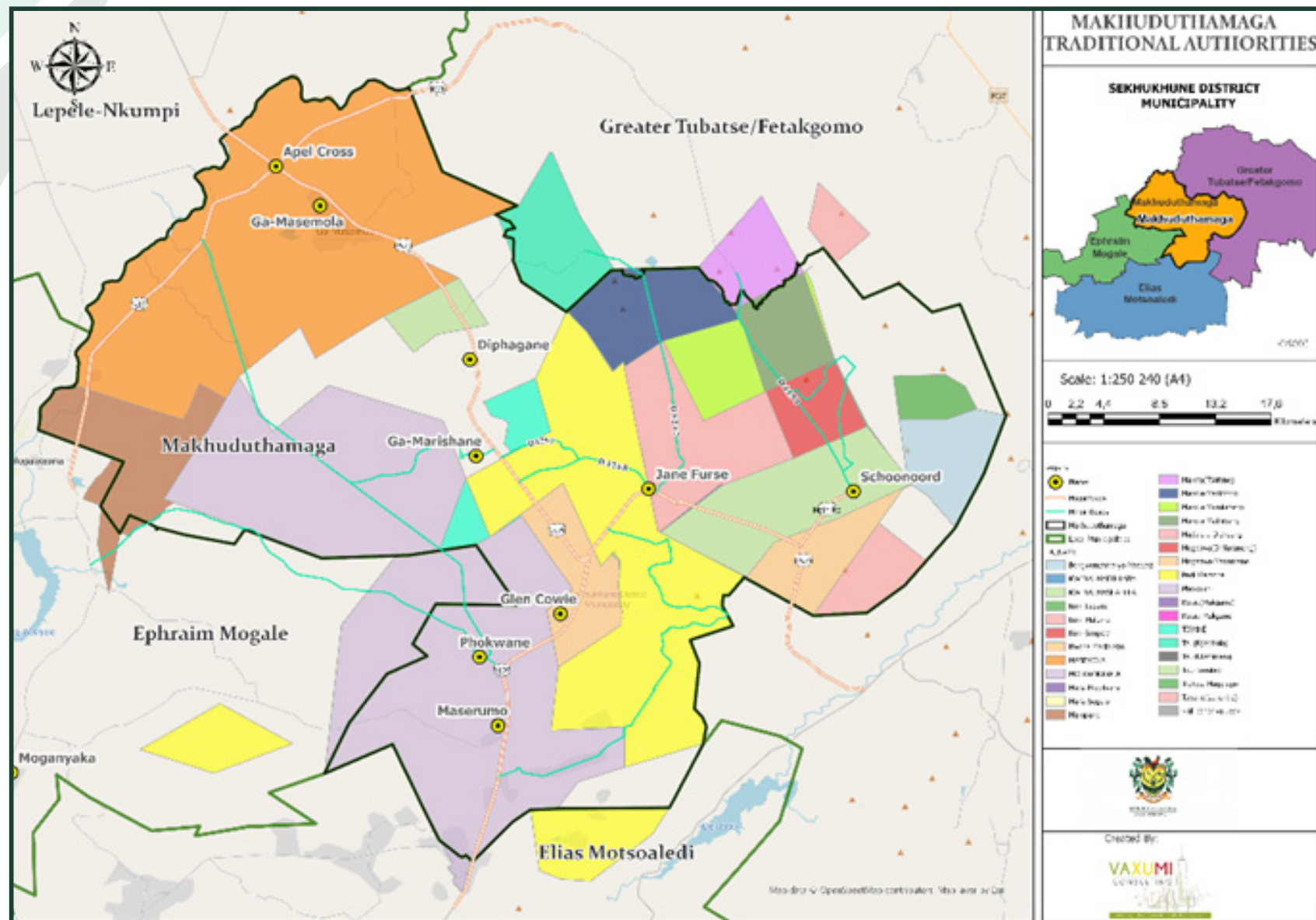
The following Tribal Authorities administer various settlements within Makhuduthamaga Mu-nicipality

TRADITIONAL LEADER AND SETTLEMENT

Name of Traditional Authority	Traditional leader	Settlements
Marota Madibong	Kgoshigadi Kgoloko	Madibong
Maila Mapitsane	Kgoshigadi Maila Madinoge Alice	Maila Mapitsane
Maila Segolo	Kgoshi Maila Mathabeng George	Maila Segolo
Tlokwe Magolego	Kgoshi Magolego Mmidi William	Ga-agolego
Marota Makgane	Kgoshi Makgeru Sefogole Frans	Makgane
Kone Maloma	Kgoshi Maloma Matime Gordon	Ga-Maloma
Tau Tswaledi	Kgoshi Mashegoane Dithoto Lehutso	Mashegoane-Tswaledi
Kone Legare	Kgoshi Mashegoane Reuben Kwekwe	Mashegoane-Legare
Mogashoa Ditlhakaneng	Kgoshi Mogashoa Ditlhakaneng Sydney	Mogashoa Ditlhakaneng
Mogashoa Manamane	Kgoshi Mogashoa Manamane Edward	Mogashoa Manamane
Tswako Lekentle	Kgoshigadi Mohlala Gadifele Bridgette	Madibaneng

Tau Nkadimeng	Kgoshi Nkadimeng Ramphelane Wilson	Manganeng
Bangwenyama ya Maswazi	Kgoshigadi Nkosi	Ga-Nkosi
Marota Mathibeng	Kgoshigadi Ntobeng Khudu Annah	Mathibeng
Ratau Makgane	Kgoshi Ratau Malakeng Ernest	Ga-Ratau
Kone Seopela	Kgoshigadi Seopela Nkweng Jane	Ga-Seopela
Marota Tjatane	Kgoshigadi Seraki Mathuding Rachel	Tjatane
Marota Marulaneng	Kgoshi Thulare Seraki Equator	Marulaneng
Pedi-Mamone	Kgoshi Mampuru	Mamone, Jane Furse and surrounds
Kwena Madihlaba	Kgoshi Madihlaba Dikoetje John	Ga-Moloi, Glen-Cowie
Phokoane	Kgoshigadi Maserumole Makwetle Betty	Phokoane
Tisane	Kgoshi Tisane Moroangoato Ntladi	Ga-Tisane
Batau ba Marishane	Kgoshi Marishane Makau	Marishane
Batau ba Phaahla	Kgoshi Phaahla Letsiri George	Ga-Phaahla
Batau ba Masemola	Kgoshigadi Masemola Makgatle Lydia	Ga-Masemola
Mampane	Kgoshi Mampane Maunatlala John	Ga-Mampane

Table 2: List of traditional authorities in Makhuduthamaga Municipality (source Makhuduth-amaga Municipality)



Institutional structure includes issues such as landownership in terms of whether land is owned by the national, provincial government, municipal, private or tribal authority which influence accessibility to land for development initiatives.

4.2.1 Landownership

Landownership plays a critical role in development as it influences access to land and affordability. Often privately owned land is kept for investment (speculative) purposes and the owners are not willing to sell it for social development projects and hence its sale and sale price is market-driven. The Municipality is a predominantly rural municipality with 100% of all wards and settlements falling under the jurisdiction of traditional authorities.

Figure 1 below supports the statement of all habitable wards and settlements falling under a system of traditional leadership.

The current form of land tenure is a complex one, with most of the land either under state administration, traditional authorities or privately owned. In Makhuduthamaga Municipality the land under traditional leadership total 176 393 ha which accounts for 83% of all land in this municipality (SDM IDP 2016-2021).

According to records from the deeds office, Makhuduthamaga Municipality IDP 2016-2021, Makhuduthamaga Municipality SDF 2015 and Makhuduthamaga Municipality Land Audit Report 2020, land ownership is in the hands of the State, private owners, unregistered and tribal authorities. The biggest land owner is the State through the provincial government, parastatals (State Owned Entities) and national government. The Makhuduthamaga Municipality is not the registered owners of any strategically located land within the study area. Table 2 below provides a detailed breakdown of ownership of land in the Makhuduthamaga Municipality study area.

The fact that Makhuduthamaga Municipality does not have land registered in its name within its area of jurisdiction is a serious drawback in as far as land use management and spatial planning is concerned.

This is one of the reasons of no alignment between the municipality, traditional authorities and national and provincial governments on aspect of land use management, planning and allocation of land for various land uses. This further results in fragmented planning and rampant uncoordinated development for the study area.

Percentage of wards and municipal area with traditional authorities and percentage of municipal area from former homelands

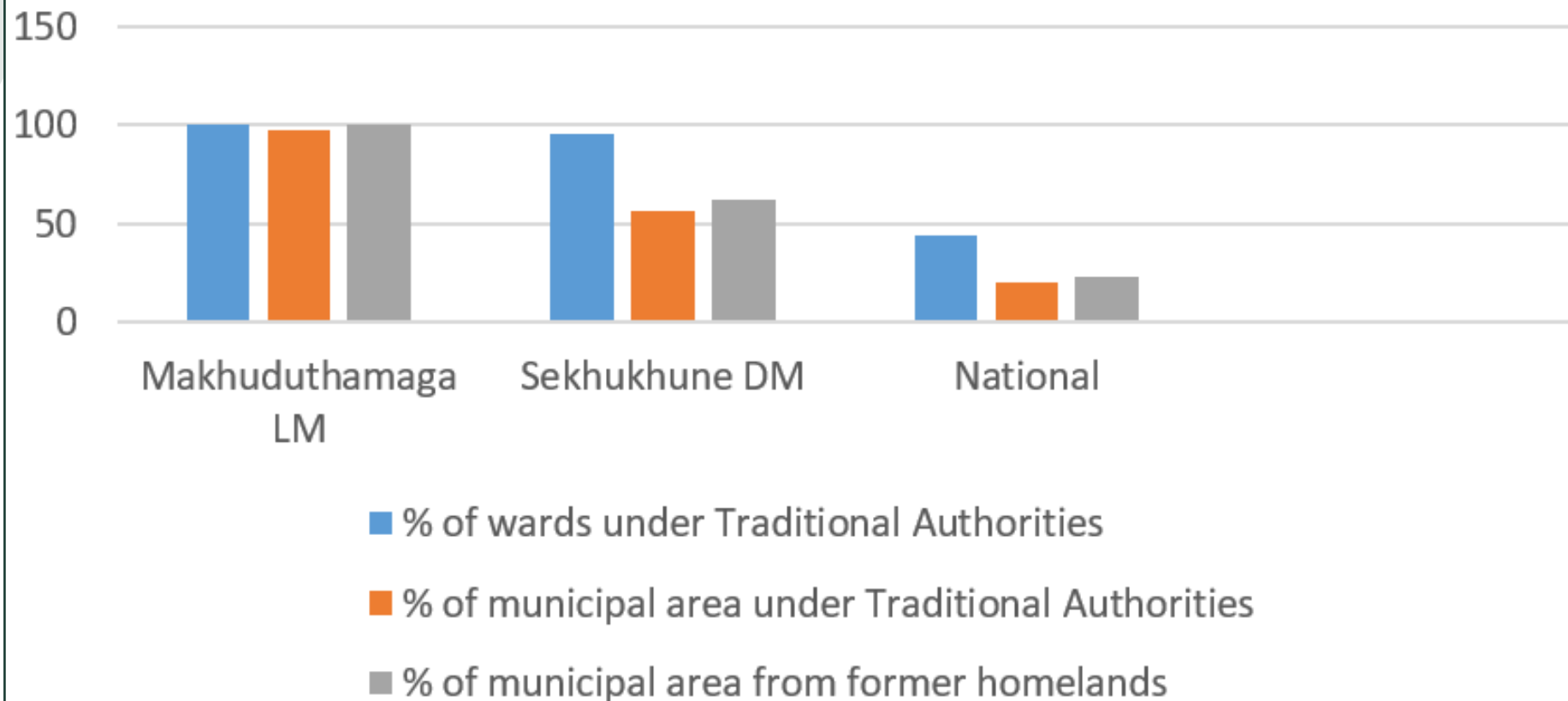


Figure 1: Percentage of wards under traditional authorities (source: Municipal Demarcation Board, 2018)

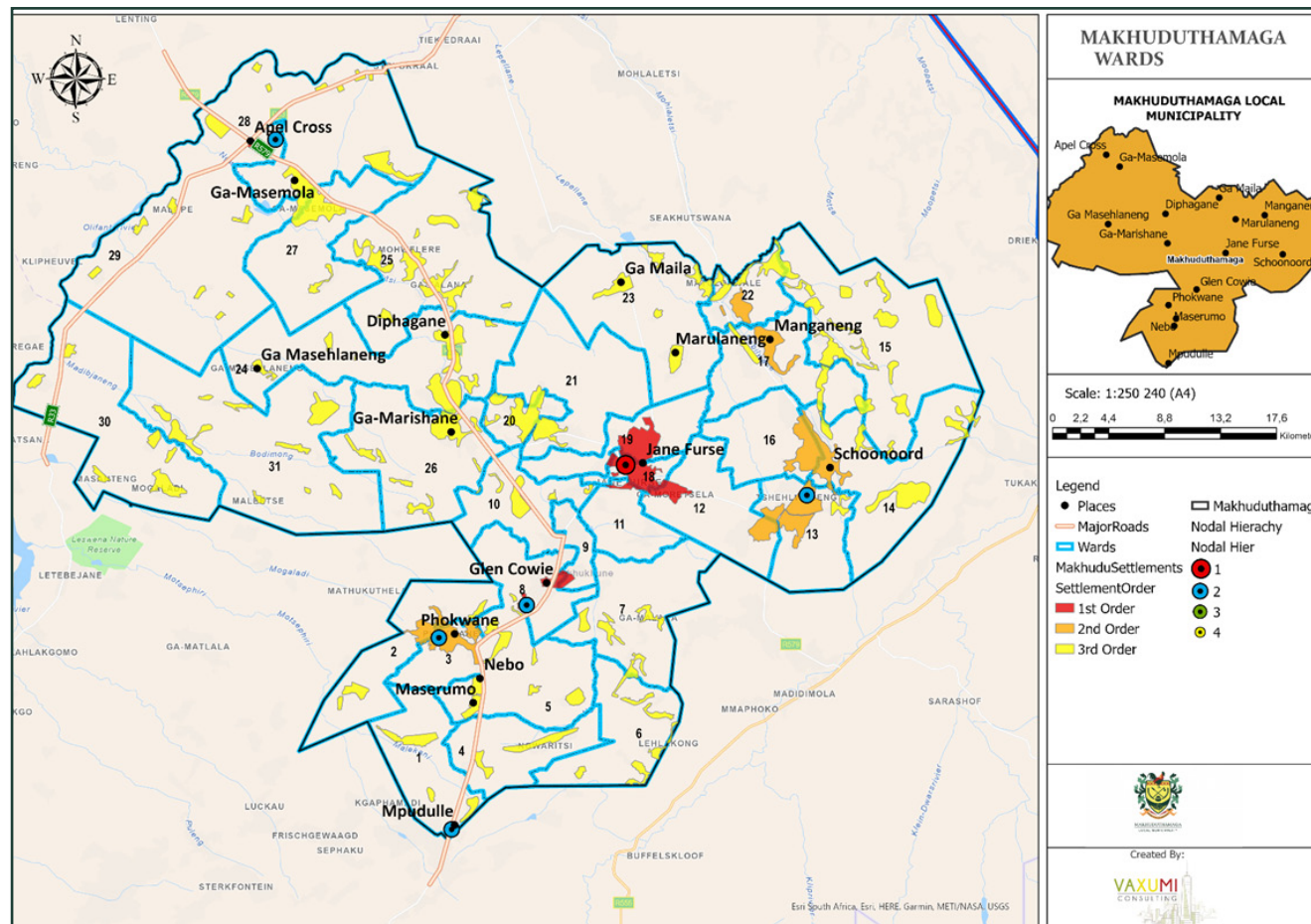
OWNERSHIP	NO. OF PROPERTIES	EXTENT (ha)	PERCENTAGE %
Limpopo Province Government	25	65	0%
Not Registered	232	24546	11%
Parastatals (Private)	3	1960	1%
Private (Other)	43	8107	4%
Pty Ltd (Private)	9	2998	1%
Republic of South Africa	153	168759	75%
Tribal Land (Private)	22	17436	8%
Trusts (Private)	1	43	0%
TOTALS	488	223914	100%

Table 3: Institutions owning land in Makhuduthamaga Municipality (Source: Makhuduthamaga Land Audit Report, 2020)

Map 4 shows current landownership status in the Sekhukhune District Municipality of which Makhuduthamaga Municipality is one of the constituent municipalities. It is important to note that state owned land which includes tribal authority-owned land is under the custody of the Department of Rural Development and Land Reform and/or Department of Public Works.

4.2.2 Municipal Ward Boundaries

The Makhuduthamaga Municipality comprises of 31 wards (refer to Map 5).

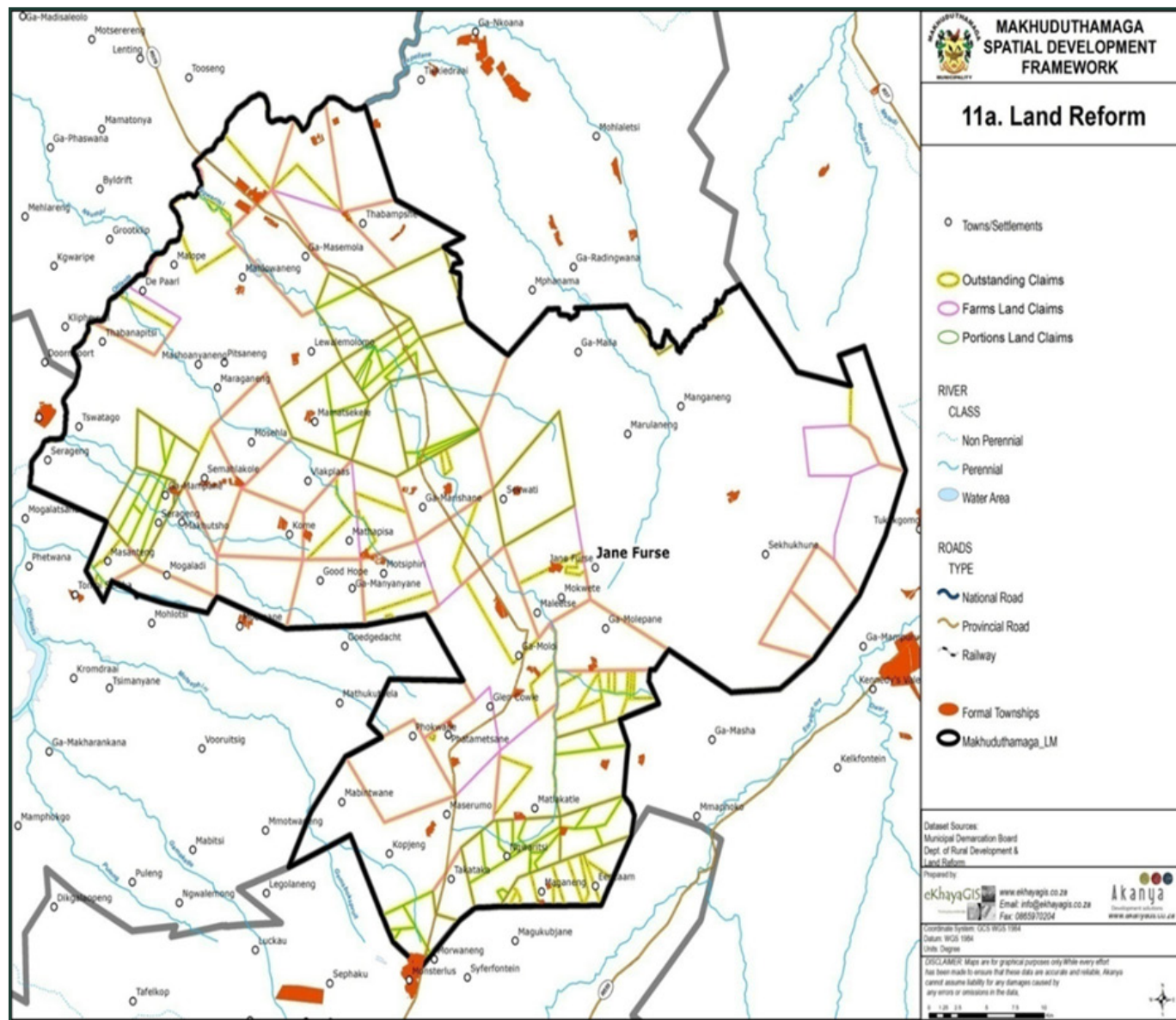


4.2.3 Land Claims

The spatial structure is further affected by land claims lodged against certain parcels of land in the Municipality. Map 6 to this revised SDF shows the spatial distribution of land claims in the

planning area and Table 4 to this SDF provides a list of such land claims obtained from Provincial Land Claims Commission. From this, an estimated 117 claims were received by the Provincial Land Claims Commission most of which are communal land and privately owned land which are being used for game farming.

Map 5: Makhuduthamaga Wards



Map 6: Land Claims (source, Makhuduthamaga Municipality SDF, 2015)

NO	FARM NAME	EXTENT	REGISTERED OWNER	CLAIM STATUS
1.	GELUK	701.1581 H	GOVERNMENT OF LE-BOWA	No Claim
2.	GELUK OOS	280.4077 H	GOVERNMENT OF LE-BOWA	No Claim
3.	BATTLE	9515 SQM	RATSOMA SHOPPING CEN-TRE PTY LTD	No Claim
4.	WONDERBOOM	475.9363 H	NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA	Mphahlele Tradi-tional Authority KRP 1900
5.	WONDERBOOM	475.9363 H	MASEMOLA TRIBE	
6.	WONDERBOOM	475.9363 H	NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA	
7.	WONDERBOOM	501.6579 H	MASEMOLA TRIBE	
8.	VLAKPLAATS	1808.1733 H	NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA	Elandskraal Community KRP 11996; Mphahlele Tradi-tional Authority KRP 1900
9.	HAAKDOORN-DRAAI	2722.4970 H	MASEMOLA TRIBE	No Claim
10.	VOGELSTRUIS-KOPJE	1156.3482 H	MASEMOLA TRIBE	No Claim
11.	KROKODIL-HEUVEL	764.8981 H	NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA	Mampane Com-munity) KRP 1554;
12.	ORANJEFONTEIN	543.3918 H	ORANJEFONTEIN BOERDERY PTY LTD	No Claim

13.	VLAKSPRUIT	683.8748 H	NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA	Mampane Com-munity) KRP 1554; Phaahla Tribe KRP 1514/1629/1513
14.	NOOITGEZIEN	1223.0062 H	BOKGOBELA NATURE RE-SERVE PRIMARY COOPER-ATIVE LTD	Tladi Ya Kgatlane Community KRP 12162
15.	GOEDVERWACHT	1614.2602 H	BOKGOBELA NATURE RE-SERVE PRIMARY COOPER-ATIVE LTD	Mphahlele Tradi-tional Authority KRP 1900
16.	VEEPLAATS	1971.5769 H	NATIONAL GOVERNMENT THE REPUBLIC OF SOUTH AFRICA	
17.	DE OUDE STAND VAN SEQUATI	3352.8388 H	NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA	
18.	LEKKERLAND	2746.6583 H	NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA	Maleka Kgomogoroga Fashion KRP 9596
19.	HEERLYKHEID	2375.4387 H	GOVERNMENT OF LE-BOWA	Mashabela Tribe KRP 1481/1482

20.	KANAAN	2709.3492 H	GOVERNMENT OF LE-BOWA	Kwena Mashabela Community KRP 1533/1560
21.	DRAKENSTEIN	2791.3621 H	GOVERNMENT OF LE-BOWA	Kwena Mashabela Community KRP 1533/1560
22.	PROBEREN	262.4271 H	GOVERNMENT OF LE-BOWA	Kwena Mashabela Community KRP 1533/1560
23.	RUSTPLAATS	1480.0730 H	GOVERNMENT OF LE-BOWA	Phaahla Tribe KRP 1514/ 1629/1513/11145 Kwena Mashabela Community KRP 1533/1560 Moroangoato Tribe KRP 3242
24.	NOOITGEDACHT	2570.4582 H	GOVERNMENT OF LE-BOWA	No Claim
25.	NOOITVER-WACHT	2398.3311 H	NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA	

26.	VERGENOEGD	1967.8537 H	MASEMOLA TRIBE	Phaahla Tribe KRP 1514/1629/1513/ 11145
27.	VOGELENZANG	1945.4859 H	SUID-AFRIKAANSE ON-TWIKKELINGSTRUST	
28.	DE PAARL	1288.2885 H	REPUBLIC OF SOUTH AFRI-CA	No Claim
29.	GAATAAN	1088.0155 H	NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA	Phaahla Tribe KRP 1514/1629/1513/ 11145 Mampane Com-munity KRP 1554
30.	DERDEMAAL	2181.5799 H	MASEMOLA TRIBE	No Claim
31.	EENKANTAN	155.5900 H	NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA	Mampane Com-munity KRP 1554, Moroangoato Tribe KRP 3242

32.	WELTEVREDEN	548.1821 H	NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA	Mampane Com-munity KRP 1554
33.	HOPEFIELD	2023.6282 H	NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA	Moroangoato Tribe KRP 3242
34.	KOORNKOPJE	2705.1708 H	NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA	Phaahla Tribe KRP 1514/1629/1513/ 11145 Mampane Com-munity KRP 1554
35.	VLAKPLAATS	2411.1404 H	GOVERNMENT OF LE-BOWA	Moroangoato Tribe KRP 3242; Elandskraal Community KRP 11996
36.	MEERLUST	1750.4359 H	GOVERNMENT OF LE-BOWA	Phaahla Tribe KRP 1514/1629/1513/ 11145 Kwena Mashabela Community KRP 1533/1560

37.	STERKSPRUIT	819.7654 H	GOVERNMENT OF LE-BOWA	
38.	MOOIHOEK	800 DUM	GOVERNMENT OF LE-BOWA	Batau ba Mphan-ama Tribe KRP 1507
39.	LORDSKRAAL	800 DUM	GOVERNMENT OF LE-BOWA	Matlala Di-choeung Community KRP 428/1502
40.	EENZAAM	3146.0420 H	NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA	Baroka Ba Maila of Maila Segolo KRP 1643; Mangangeng Tribe KRP 2542; The Kingdom of Sekhukhune KRP 2585
41.	GROENLAND	2569.5960 H	NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA	Monyaka Seroma Trust KRP 1625
42.	AVONTUUR	3233.4083 H	NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA	Mangangeng Tribe KRP 2542; Maila ML KRp 1287; Batau Ba Mashite Community KRP 746

43.	GOEDGEMEEND	800 DUM	NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA	Mangangeng Tribe KRP 2542, Maila ML KRP 1287
44.	DUIZENDANNEX	9286 SQM	NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFR	Mangangeng Tribe KRP 2542; Monyaka Seroma Trust KRP 1625
45.	BOTHASPRUIT	1393.4491 H	GOVERNMENT OF LE-BOWA	Tisane Tribe KRP 12171 and Moroangoato Tribe KRP 2342
46.	ZOETVELDEN	1444.6540 H	GOVERNMENT OF LE-BOWA	Moroangoato Tribe KRP 2342
47.	WELTEVREDEN	614.6348 H	MASHILO POLATSI TITUS	Tisane Tribe KRP 12171 and Moroangoato Tribe KRP 2342
48.	GOEDEHOOP	2578.3740 H	NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA	Tisane Tribe KRP 12171 and Moroangoato Tribe KRP 2342

49.	EENSGEVONDEN	1110.4209 H	NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA	Tisane Tribe KRP 12171 and Moroangoato Tribe KRP 2342
50.	DRIEKOPJES	2492.7208 H	NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA	Moroangoato Tribe KRP 2342
51.	KOPJE ALLEEN	2395.1561 H	NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA	Moroangoato Tribe KRP 2342
52.	BUFFELSFONTEIN	543.7669 H	GOVERNMENT OF LE-BOWA	Shalane Community KRP 10244/9956/1745
53.	ONTEVREDEN	2325.0161 H	GOVERNMENT OF LE-BOWA	Phokwane Tribe KRP 1577 / Mamosadi Ngwanapofu KRP 11595 & other Individuals
54.	MASLEROEMS OUDESTADT	2790.5784 H	PHOKWANE TRIBE	Kwena Ma-dihlaba Commu-nity KRP 2012/

55.	STAD VAN MASLEROEM	2257.0803 H	REPUBLIEK VAN SUID-AFRIKA	Pedi Mamone KRP 6170 / Monama C.W KRP 1598
56.	BOSCHPOORT	3140.4703 H	NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA	Ratau Makgane Tribe KRP 422 Manganeng Tribe 2542 / / Mogashoa ME (Mogaswa-Manamane Tribal Authority) 1851/2497
57.	GROBLERSVREDE	3120.3932 H	NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA	Ratau Makgane Tribe KRP 422 / Manganeng Tribe 2542 / Mogashoa ME (Mogaswa- Manamane Tribal Authority) 1851/2497
58.	DIAMAND	2569.5960 H	NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA	Manganeng Tribe 2542 / Mogashoa ME (Mogaswa- Manamane Tribal Authority) 18512497 Pedi-Mamone KRP 6170 / Bakone Ba Mmanakana 11722

59.	TWEEFONTEIN	373.3196 H	MAMAILE GABIFELE	Pedi-Mamone KRP 6170 / Bakone Ba Mmanakana 11722
60.				Kwena madihlaba Community KRP 1556/2012
61.	UITKYK	8.5653 H	NATIONAL GOVERNMENT OF REPUBLIC OF SOUTH AFRICA	Phokwane Tribe KRP1895; Malaka Tribe KRP 10289; Bakone Ba Mmanakana KRP 11722
62.	RIETFONTEIN	3491.2001 H	GOVERNMENT OF LE-BOWA	Kwena madihlaba KRP 1556; Pedi Mamone 1598; Phokwane Tribe 1895
63.	PLATKLIP	1171.6002 H	GOVERNMENT OF LE-BOWA	Phokwane Tribe 1895
64.	VLEESCHBOOM	928.0924 H	NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA	Phokwane Tribe 1895
65.	KLIPSPRUIT	859.1987 H	NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA	Phokwane Tribe 1895

66.	EENZAAM	530.5473 H	NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA	Madihlaba DJ (Kwena Ma-dihlaba community) KRP 1556/2012
67.	EENZAAM	308.0899 H	MADIBA GEELBOOI MA-MOGOLO	Madihlaba DJ (Kwena Ma-dihlaba community) KRP 1556/2012
68.	RIETFontein	440.5843 H	PHOKWANE TRIBE	Madihlaba DJ (Kwena Ma-dihlaba community) KRP 1556/2012; Phokwane Tribe 1895
69.	LEEuwkraal	889.5466 H	GOVERNMENT OF LE-BOWA	Madihlaba DJ (Kwena Ma-dihlaba community) KRP 1556/2012; Phokwane Tribe 1895; Pedi ma-mone ; Bakone ba Mmanamane KRP 11722
70.	GOEDGEDACHT	2211.2561 H	NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA	Monama CW, Monama CK

71.	ROODEPOORT	578.6644 H	NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA	Madihlaba DJ (Kwena Ma-dihlaba community) KRP 1556/2012; Pedi mamone Bakwena Ba Makua Tribal Athority KRP 1642
72.				Madihlaba DJ (Kwena Ma-dihlaba community) KRP 1556/2012; Pedi mamone;
73.		3.5709 H	PROVINCIAL GOVERNMENT OF LIMPOPO	Bakwena Ba Makua Tribal Athority
74.		1.2709 H	PROVINCIAL GOVERNMENT OF LIMPOPO	Madihlaba DJ (Kwena Ma-dihlaba community) KRP 1556/2012; Pedi mamone;
75.		1.1573 H	PROVINCIAL GOVERNMENT OF LIMPOPO	Bakwena Ba Makua Tribal Athority

76.		1.3200 H	PROVINCIAL GOVERN-MENT OF LIMPOPO	KRP1642
77.		2.9940 H	PROVINCIAL GOVERN-MENT OF LIMPOPO	Madihlaba DJ (Kwena Ma-dihlaba commu-nity) KRP 1556/2012; Pedi mamone;
78.		8936 SQM	PROVINCIAL GOVERN-MENT OF LIMPOPO	Bakwena Ba Makua Tribal Athority
79.		6.2045 H	PROVINCIAL GOVERN-MENT OF LIMPOPO	KRP1642
80.		3.4352 H	PROVINCIAL GOVERN-MENT OF LIMPOPO	Madihlaba DJ (Kwena Ma-dihlaba commu-nity) KRP 1556/2012; Pedi mamone;
81.		9488 SQM	PROVINCIAL GOVERN-MENT OF LIMPOPO	Bakwena Ba Makua Tribal Athority
82.		5.7323 H	PROVINCIAL GOVERNMENT OF LIMPOPO	Madihlaba DJ (Kwena Ma-dihlaba commu-nity) KRP 1556/2012; ; Pedi mamone;
83.		2.4456 H	PROVINCIAL GOVERN-MENT OF LIMPOPO	Bakwena Ba Makua Tribal Athority

84.		2.4219 H	PROVINCIAL GOVERN-MENT OF LIMPOPO	KRP1642
85.		1.7718 H	PROVINCIAL GOVERN-MENT OF LIMPOPO	Madihlaba DJ (Kwena Ma-dihlaba commu-nity) KRP 1556/2012; Pedi mamone;
86.		1.6067 H	PROVINCIAL GOVERN-MENT OF LIMPOPO	Bakwena Ba Makua Tribal Athority
87.		1.6630 H	PROVINCIAL GOVERN-MENT OF LIMPOPO	KRP1642
88.		1.6630 H	PROVINCIAL GOVERN-MENT OF LIMPOPO	Madihlaba DJ (Kwena Ma-dihlaba commu-nity) KRP 1556/2012; Pedi mamone;
89.		4.6236 H	PROVINCIAL GOVERN-MENT OF LIMPOPO	Bakwena Ba Makua Tribal Athority
90.		1.9450 H	PROVINCIAL GOVERN-MENT OF LIMPOPO	Madihlaba DJ (Kwena Ma-dihlaba commu-nity) KRP 1556/2012; Pedi mamone;
91.		2.3700 H	PROVINCIAL GOVERN-MENT OF LIMPOPO	Bakwena Ba Makua Tribal Athority

92.		2.5060 H	PROVINCIAL GOVERN-MENT OF LIMPOPO	KRP1642
93.		1.7705 H	PROVINCIAL GOVERN-MENT OF LIMPOPO	Madihlaba DJ (Kwena Ma-dihlaba commu-nity) KRP 1556/2012; ; Pedi mamone
94.				Bakwena Ba Makua Tribal Athority
95.				The Kingdom of Sekhukhune KRP 2585; Sekhukhune RT (Marota Mohlaletsi Com-munity/ Bapedi Tribe) KRP11200
96.	GENOKAKOP	1304.1057 H	GOVERNMENT OF LE-BOWA	The Kingdom of Sekhukhune KRP 2585; Sekhukhune RT (Marota Mohlaletsi Com-munity/ Bapedi Tribe) KRP11200
97.	HOOGSTE PUNT	1335.5918 H	NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA	Nkadimeng T (Manganeng Tribe) KRP2548

98.	HOEPAKRANTZ	1928.3347 H	NATIONAL GOVERNMENT REPUBLIC OF SOUTH AFRICA	Nkadimeng T (Manganeng Tribe) KRP2548
99.	HOUTBOSCH	1711.9619 H	NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA	Tlokwa Mago-lego Community KRP1439; The Kingdom of Sekhukhune 2585; Moopong M KRP4474
100.	NOOITVER-WACHT	1386.2471 H	NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA	Mankge M KRP5091 & Other Individuals
101.	SOUPIANA	1227.7459 H	NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA	No Information
102.	SCHOONOORD	3113.4938 H	NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFR	Kone-Maloma Traditional Au-thority KRP1524
103.	HET FORT	1730.4516 H	NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA	The Kingdom of Sekhukhune KRP2585

104.	CORNDALE	1475.8817 H	NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA	No Information on our DataBase
105.	LANDSEND	1256.2341 H	NATIONAL GOVERNMENT OF THE REPUBLIC OF SOUTH AFRICA	No Information on our DataBase
106.		6626 SQM	PROVINCIAL GOVERN-MENT OF LIMPOPO	No Information on our DataBase
107.		5.8711 H	PROVINCIAL GOVERN-MENT OF LIMPOPO	No Information on our DataBase
108.		3.1136 H	PROVINCIAL GOVERN-MENT OF LIMPOPO	No Information on our DataBase
109.		2.4536 H	PROVINCIAL GOVERN-MENT OF LIMPOPO	Moroangoato Tri KRP2342 No Information on our DataBase

Table 4: List of farms under land claim (source: Makhuduthamaga Municipality Land Audit)

The slow pace in the resolution of land reform (restitution, redistribution and land tenure) process often results in sterilization of economically productive land. Often the challenge in cases like this is when land owners whose properties land claims were brought against delay development or agricultural activities on their properties due to uncertainty regarding the outcomes of the land reform process particularly in respect of property valuation. The municipality must play an active role in influencing the decisions regarding land reform process as part of the IDP process.

Municipal area by land cover

In terms of land cover for the MLM, there are four dominant land covers, namely cultivated land which constitutes 40% of the area, followed by natural cover (25.3%), degraded cover (23.3%) and built up cover (10.7) %.

Other land cover which paly a negligible percentage at 0.2% is water bodies which comprises of rivers and streams.

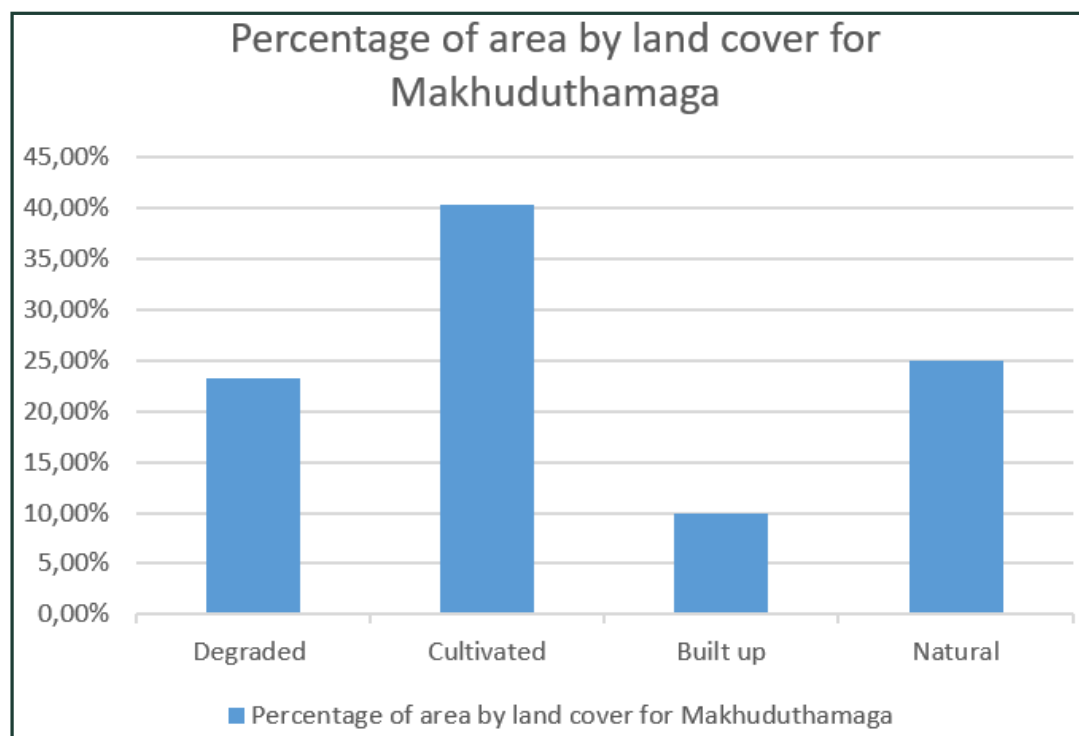


Figure 2: Percentage of area by land cover (Source: Municipal Demarcation Board, 2018)

The large percentage of land cover under cultivated land may create an impression that MLM is rich in agriculture and derive huge benefits from the sector, however, the situation on the ground does not reflect that analogy as from the IDP of MLM, the LED Strategy and physical evidence indicate that such land parcels lie fallow and are underutilised for the purpose they were meant for. Where agriculture is practised, such is done at a subsistence level. This SDF identifies some fallow disused land cover under cultivated land along the R579 road which may be used for mixed-use development to accommodate commercial, residential, industrial and agricultural development. As a result, there will be an increase in the built-up area while the cultivated cover will decrease.

4.3 Socio-Economic Profile

4.3.1 Population Profile

According to IHS Market Regional eXplorer (2018) the municipality is home to some 294,000 people. The population growth for Makhuduthamaga grows at an average of 0.94% per annum, while the district one grows at an average of 1.36% per annum. According to Statistics SA, the population of Makhuduthamaga Municipality grew from 274 358 to 284 435 through the census 2011 and community survey held in 2016 respectively. According to Stats SA, the number of households is 64 769 households (Community Survey, 2016). After Fetakgomo Tubatse Local Municipality, Makhuduthamaga Municipality has the second

largest population in the Sekhukhune District Municipality. Makhuduthamaga Municipality's population constitutes 24% of the Sekhukhune District Municipality population (source: Sekhukhune District Municipality IDP 2016-2021).

Makhuduthamaga Municipality has an average population growth of 0.78% (Stats SA, Community Survey 2016). The average household size has increased from 4.1 in 2011 to 4.4 in 2016.

Census year	2016	2011
Population	284 435	274 880
Population under 15	35,8 %	38.1%
Population 15 to 64	57.6%	53.9%
Population over 65	6.6%	8.0%

Table 5: Population profile of Makhuduthamaga Municipality (source Stats SA, Community profile 2016)

From Table 5 above, one can clearly deduct that the biggest population group is between 15 and 64 at 57.6%, while there is a general reduction in the under 15 and over 65 year's category. This may be attributed to low birth rates in the study area as well as out migration of the population of a child rearing age.

4.3.2 Level of Education

The table below reflect education levels for persons over the age of 20 years for the Ma-khuduthamaga Municipality

Level of education (aged 20+)	2016	2011
No schooling	15.2%	23.3%
Matric	23.0%	20.5%
Higher education	7.2%	5.5%

Table 6: Level of Education for Makhuduthamaga Municipality
(Source: Stats SA)

Table 6 shows an improvement in the percentage of educational levels from the 2011 census. This may be attributed to an increase in the number of educational facilities in the area, as well as the availability of financial assistance for post matric studies. An increase in educational levels also augers well for development initiatives proposed by this MSDF in subsequent chapters.

4.3.3 Employment Trends

Makhuduthamaga Municipality has one of the highest unemployment figures in the country, as well as in the Sekhukhune District. According to the Municipal Demarcation Board and Statistics SA, the official unemployment rate for Makhuduthamaga Municipality is 62.7% which is higher than the Sekhukhune District Municipality's rate of 43.7% and the national rate which is at 32.1%. Out of the total unemployment rate of 62.7%, youth unemployment rate is 74%. This high unemployment rate does not border well with the municipality's ambition of growing the economy and has the resultant effect of fuelling instability in the region if such is not adequately addressed through interventions such as training and development, especially for the youthful population.

In terms of employment by sector for the Makhuduthamaga Municipality, the biggest employer community and social sector where the bulk of the labour force is employed in the civil service as municipal employees, educators, health practitioners and related. The percentage of the community and social sector is 45.4% followed by wholesale and retail trade at 14.9% as reflected in Figure 4 below. The minimal contribution of manufacturing, mining and the financial sector at less than 5% is a clear indication of the state of development for the area which has not yet have an off take required to industrialise the area.

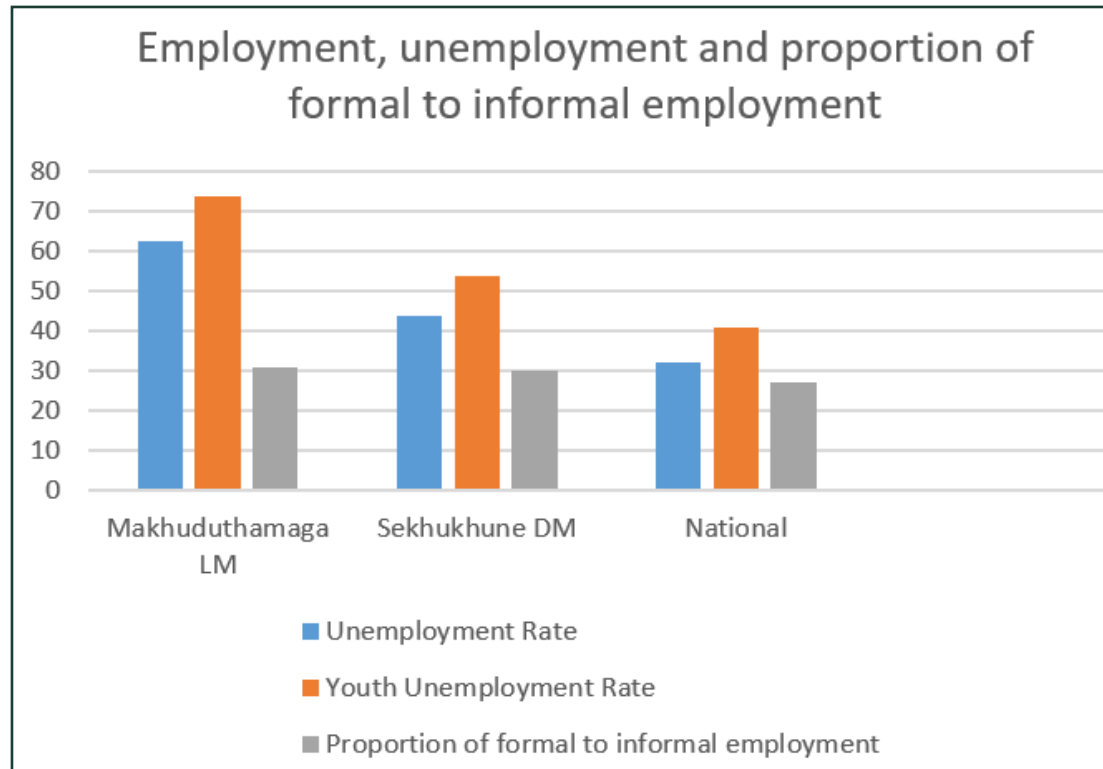


Figure 3: Shows unemployment rate in Makhuduthamaga Municipality (source: Municipal De-marcation Board-2018)

In terms of employment by sector for the Makhuduthamaga Municipality, the biggest employer community and social sector where the bulk of the labour force is employed in the civil service as municipal employees, educators, health practitioners and related. The percentage of the community and social sector is 45.4% followed by wholesale and retail trade at 14.9% as re-flected in Figure 4 below. The minimal contribution of manufacturing, mining and the financial sector at less than 5% is a clear indication of the state of development for the area which has not yet have an off take required to industrialise the area.

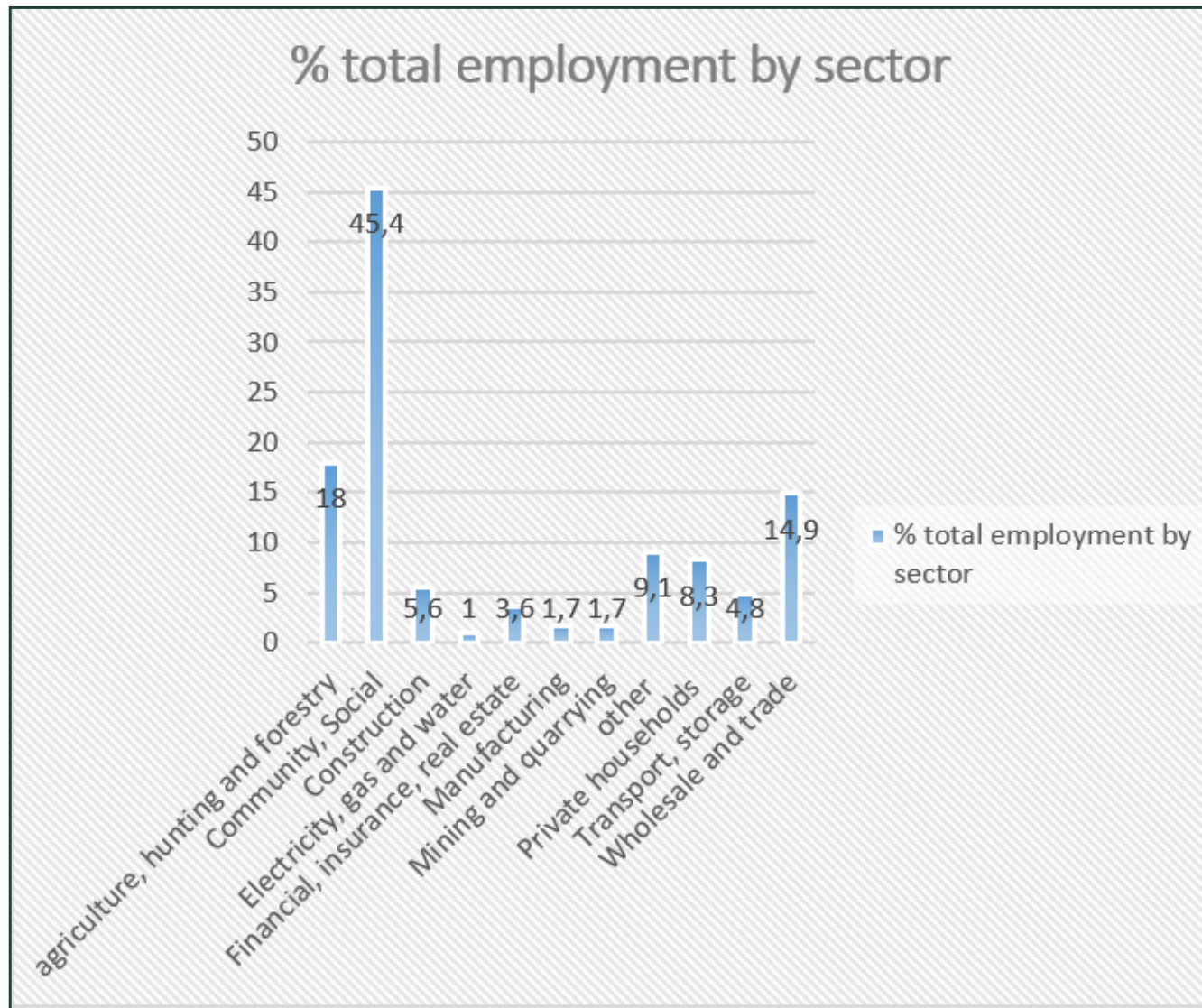


Figure 4: Shows % employment by sector Makhuduthamaga Municipality (source: Municipal Demarcation Board-2018)

4.3.4 Levels of Inequality

The project team has employed two indicators of income inequality to analyse the socio-impact of income gaps in the municipality. The dependency ratio is an age-population ratio of those not in the work force (the dependent part) and those who are working (the productive part). It is used to measure the pressure on the productive population. According to Figure 5 below, the dependency ratio of the Municipality is 86.3 which is higher than the district municipality and national average.

Inequality in society is measured through a Gini Coefficient, which is an index with a continuum of between 0 and 1, where 0

represent total equality in society and 1 represents the highest level of inequality. The index looks at the income level of the population and/or wealth distribution. South Africa is one of the most unequal societies in the world and has overtaken Brazil in recent times.

It is for this reason that the NDP prioritizes measures aimed at reducing inequality from 0.63 in 2014 to 0.57 in 2019 but this target appears to be elusive as inequality has worsened.

Ma-khuduthamaga Municipality's inequality is however at 0.596 and lower than that of national and District Municipality's inequality. See Figure 5 below for illustration.

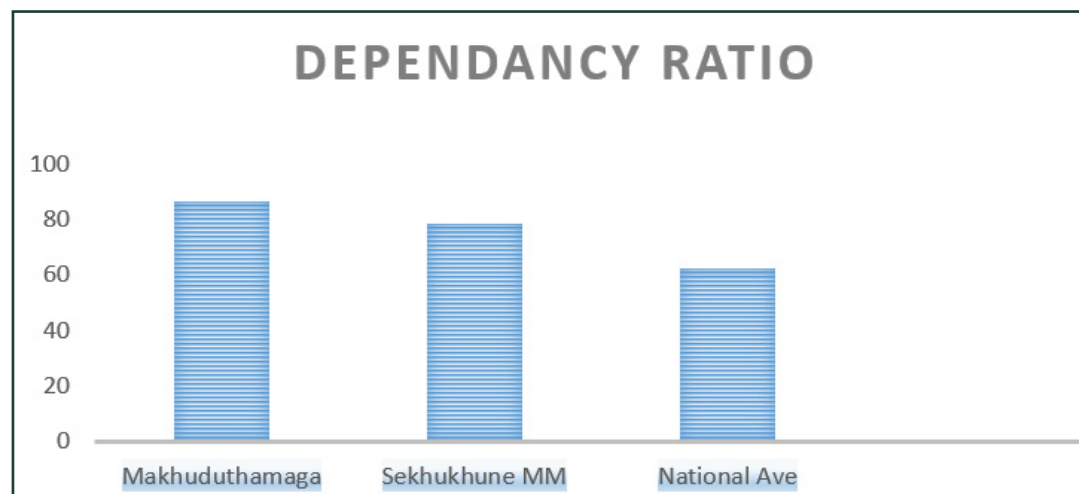


Figure 5: Dependency Levels at National and Makhuduthamaga Municipality (Source: Municipal Demarcation Board, 2018 Capacity Assessments)

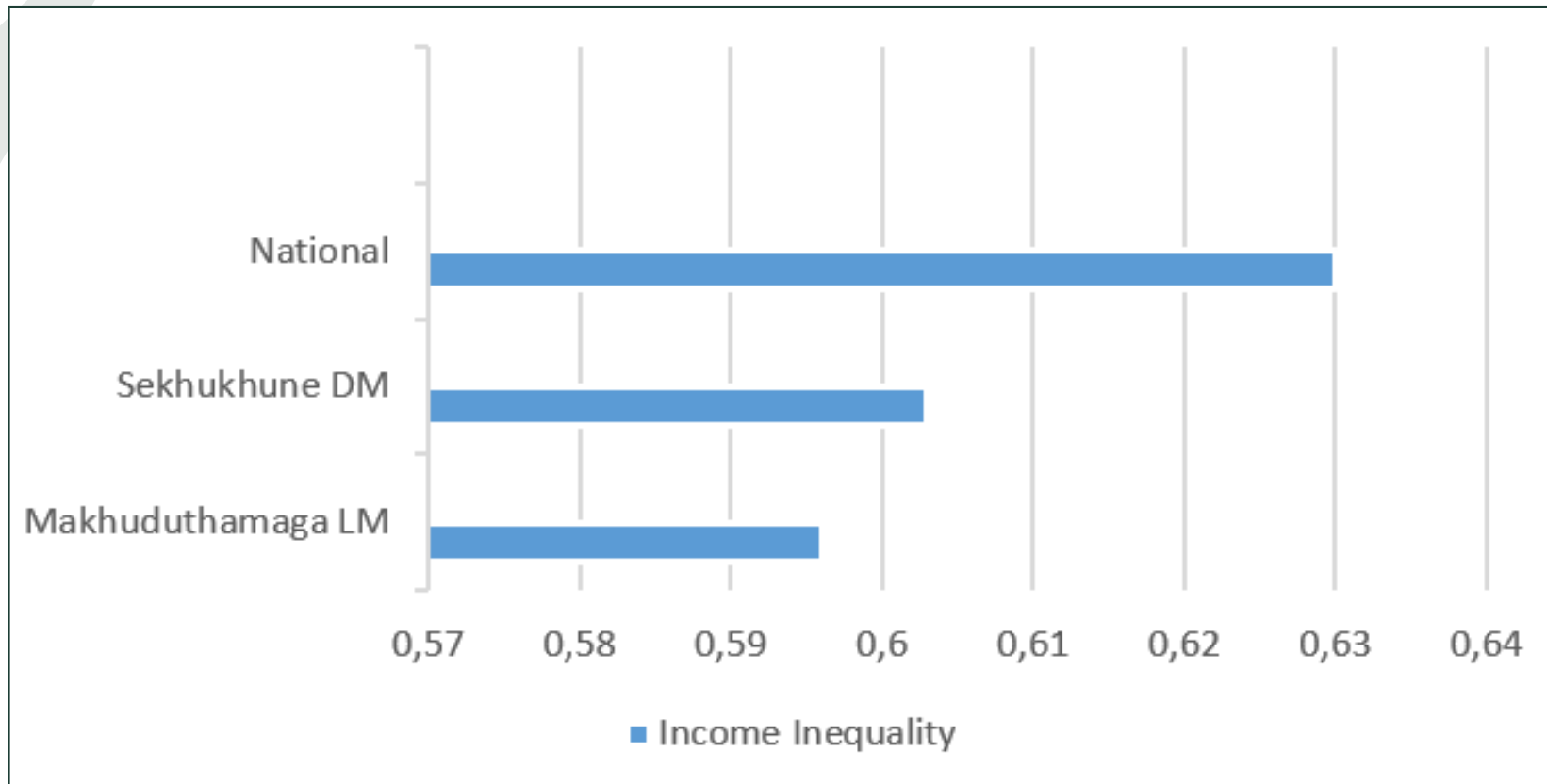


Figure 6: Inequality levels for MLM in relation to SDM and National average (Source: Municipal Demarcation Board, 2018 Capacity Assessments)

The interpretation from the above figures on dependency and inequality correlate with the high level of unemployment for the area. The high dependency rate of the Municipality is a clear indication of the high poverty levels in the area and low levels of development.

4.4 Housing Trends

Makhuduthamaga Municipality, in all its wards, comprises of housing typologies that reflect detached monotype housing in individual erven. Most of the houses, save for new developments in Jane Furse, are single storey houses which are mainly used for the accommodation of single family units.

The Municipality does not have cluster housing or social housing

for the gap market. The areas which show a lot of massive housing developments are in the nodes of Jane Furse and Apel Cross).

On the basis of demands for rental stock in Jane Furse new forms of cluster housing is being developed by private property investors for the purposes of providing rental units to the labour force within the municipal area. This has brought a radical shift from the trends wherein only backyard units were provided for dwellers who did not have a place to stay on.



Photo set 1: Modern housing typologies in Makhuduthamaga-a a case study of Phokoane

The provision of housing by government as well as self-constructed housing units by individual property owners in Makhuduthamaga did not do much to address the SPLUMA principles of Spatial Justice and Spatial Efficiency. There is also a challenge on the underutilised and abandoned government houses which could have been renovated and availed to needy families as is the case with the ones at Nebo as reflected in figure below.



Photo set 2: *Missed opportunity-abandoned government residential houses at Nebo*

On the principle of spatial efficiency, the housing patterns and trends have not addressed the challenge of sprawl. Most of the units built are in detached erven and have not considered the provision of high density mixed use development which could have addressed the challenge of high costs in the provision of infrastructure to such units. This SDF should assist the municipality to address the aspect of urban sprawl and move for compaction especially in nodes such as Jane Furse and Apel Cross.

On the principle of Spatial justice, is that most settlements' residential developments do not ensure security of tenure (formalization, tenure upgrading of R293 townships, new townships).

In the rest of rural settlements, R188 settlements, residents only have Permission To Occupy (PTO) letters from traditional authorities and this is also a limited form of ownership. PTOs do not guarantee participation of property owners in the economy like full title deeds. The conversion of PTOs to full title deeds will always meet with resistance from traditional authorities who are of the notion that such will undermine their authority on the communities they lead.

While this SDF will move for the fulfilment of the principle of spatial justice to be realized in upgrading of tenure rights to all residents some form of political intervention at a higher level and proper social facilitation will need to be expedited.

According to the Draft Limpopo Multi-Year Human Settlement Development Plan 2017, “A major challenge for municipalities in the creation of sustainable human settlements is the lack of adequate, well-located and available land within the municipalities.

Many municipalities have urban nodes surrounded by traditional land areas that restrict their ability to expand or acquire land for human settlement development.” The Makhuduthamaga Municipality IDP 2016-2021 also highlights the challenge for the provision of housing units as the lack of strategically located land in nodal areas as well as land ownership uncertainty and disputes in the rest of the municipality.

The draft plan further stresses that each district municipality within

Limpopo Province has a set of housing targets, with the current focus being mainly on the delivery of houses, largely ignoring the integrated nature of sustainable settlement growth. In line with this statement, the housing trends in Makhuduthamaga Municipality reflect the following:

- Sprawling rural settlements;
- A new trend in the form of invasions of strategic land within the primary node of Jane Furse and along the R579 road.

Spatially there are a number of strategic areas that must be considered in terms of settlement planning, namely: mining areas and their associated towns; areas of high agricultural potential; conservation and/or protected areas; informal settlements; and traditional authority and ex-homeland areas.

One of the most important indicators of backlogs in service delivery is provided through examining the number of people living in informal settlements.

Stats SA defines an informal settlement as an unplanned settlement on land that has not been surveyed or proclaimed as residential, with housing that consists mainly of informal dwellings.

This is particularly the case in more urban municipalities and the figure below compares the numbers and area occupied by people living in formal and informal human settlements.

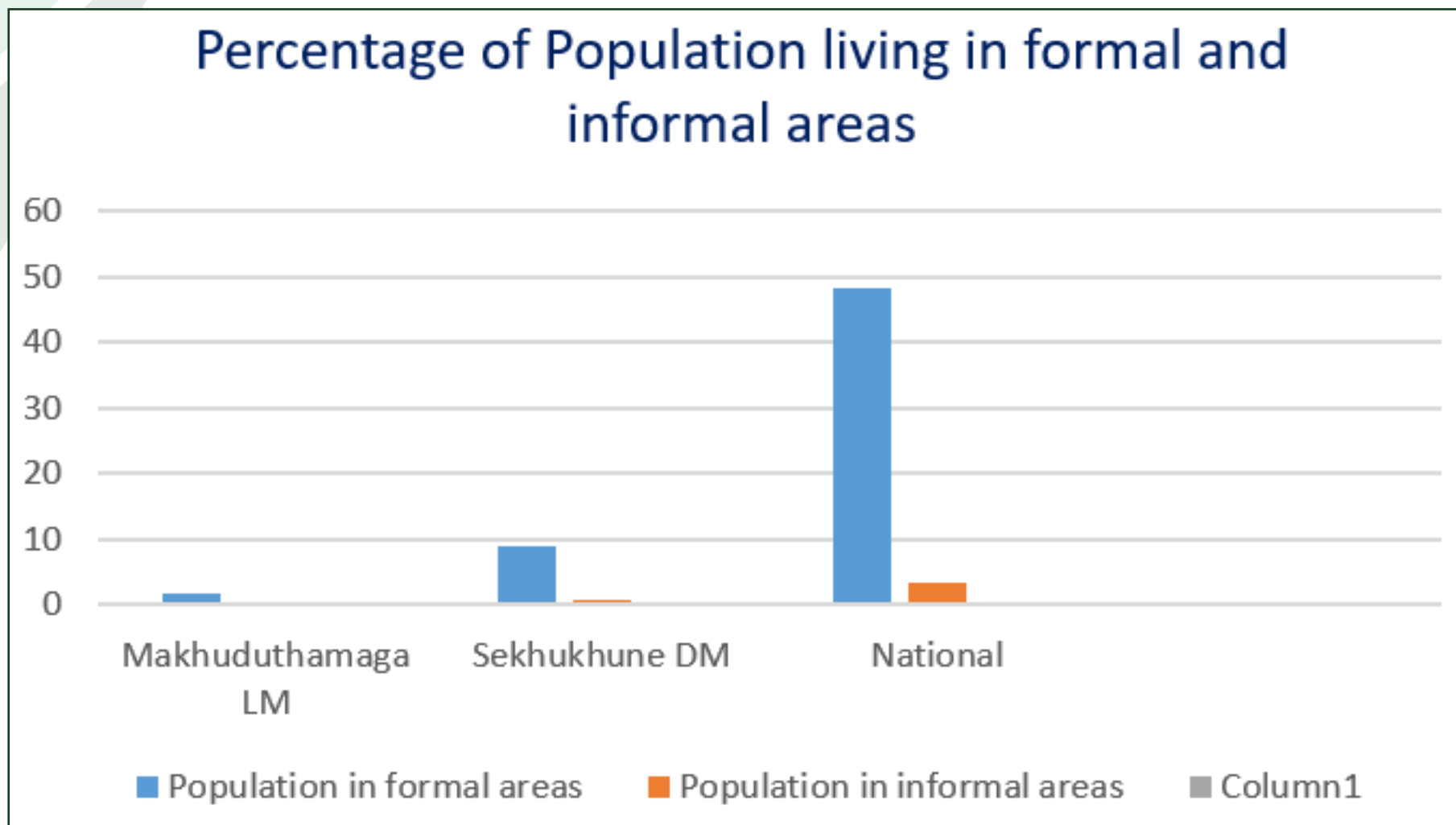


Figure 7: Reflects the percentage of Makhuduthamaga Municipality population living in informal settlements
(Source: Municipal Demarcation Board, 2018 Capacity Assessments)

4.5 Environmental Features

4.5.1 Topography and Hydrology

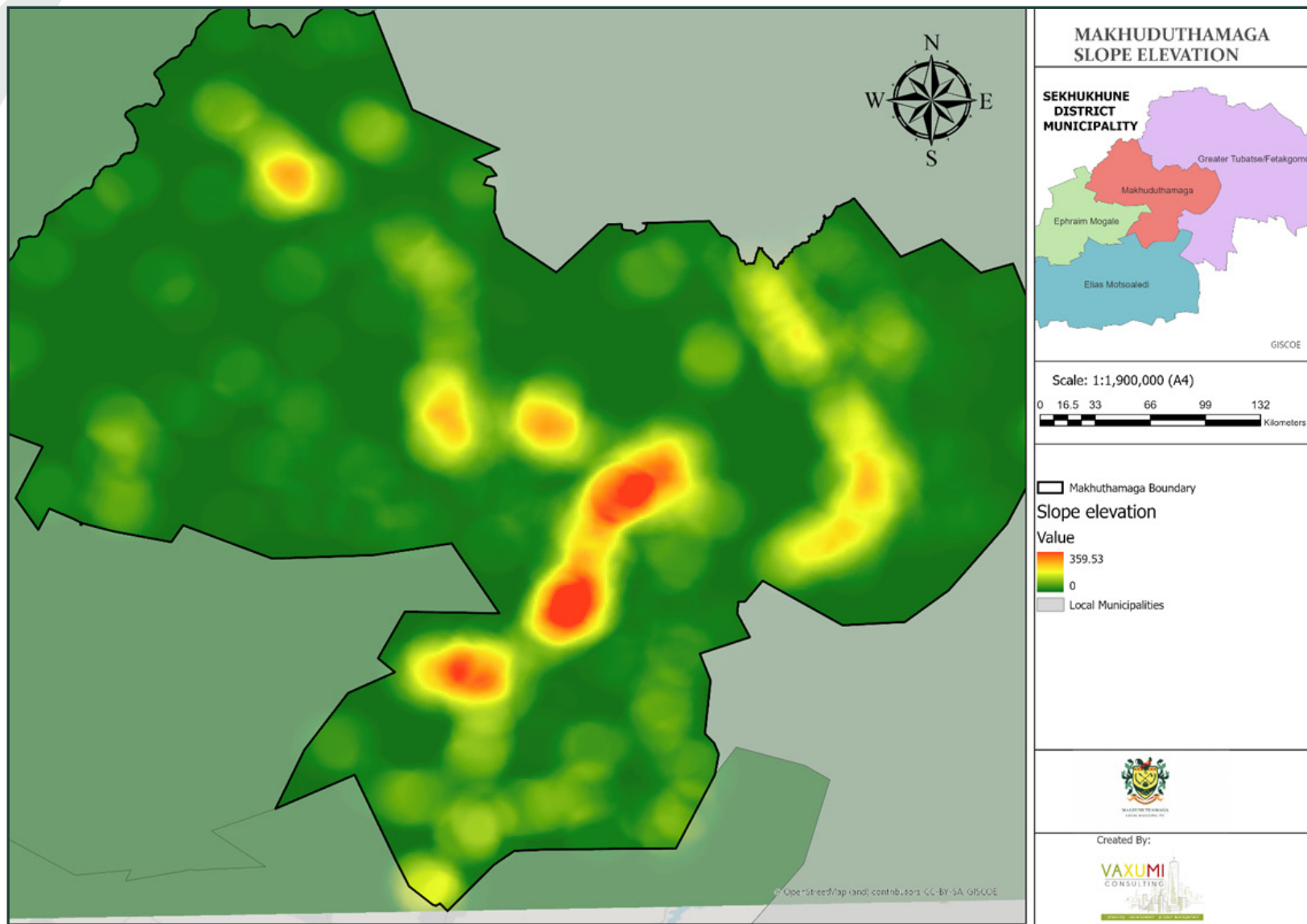
Makhuduthamaga Municipality is generally characterised by a mixture of slope and mountain-ous areas with patches of plain and flat topography. Various rock out crops and the mountain chains of Leolo Mountains provide the municipality with a unique topography that has both advantages and disadvantages landscape interrupted by the Makhuduthamaga Mountains and Makgabeng Plateau with scattered hills and rock outcrops.

Makhuduthamaga Municipality consists of undulating topography, generally flattest in the south, north and west. Slopes are generally gentle, less than 5% in most cases, but steeper terrain occurs in the hilly areas, up to >25% in places on the eastern part of the municipality towards the border of Fetakgomo Tubatse Local Municipality.

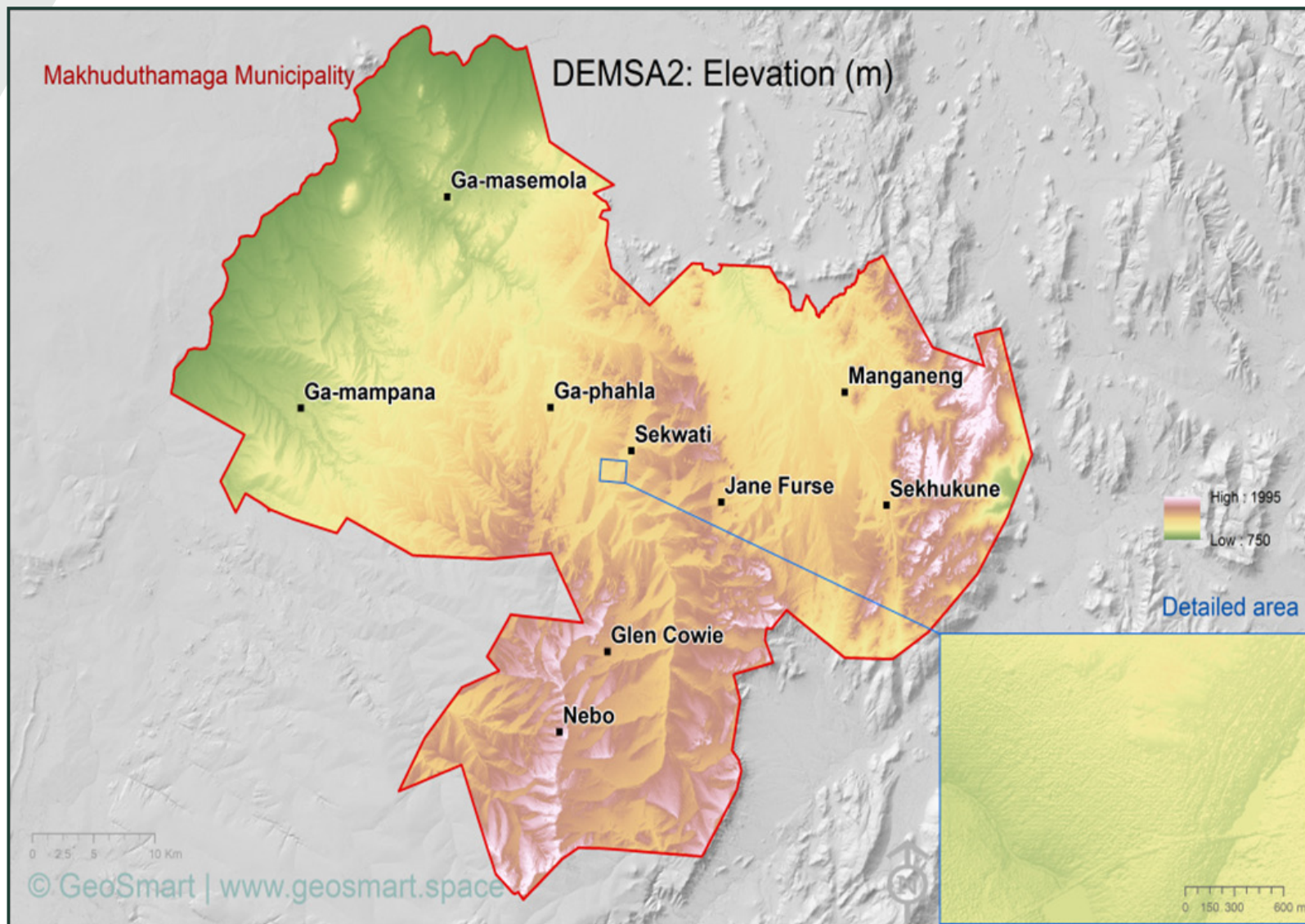
The rugged terrain of some parts of the municipality acts as a physical barrier and hence ren-ders accessibility to villages located towards the north-western parts of the Municipality



Photo set 3: Above show the topography of Makhuduthamaga Municipality and settlements nested along the foot of the koppies of the area along the R579 route



Map 7: Slope gradient of the Makhuduthamaga Municipality



Map 8: Topography and elevation of Makhuduthamaga Municipality

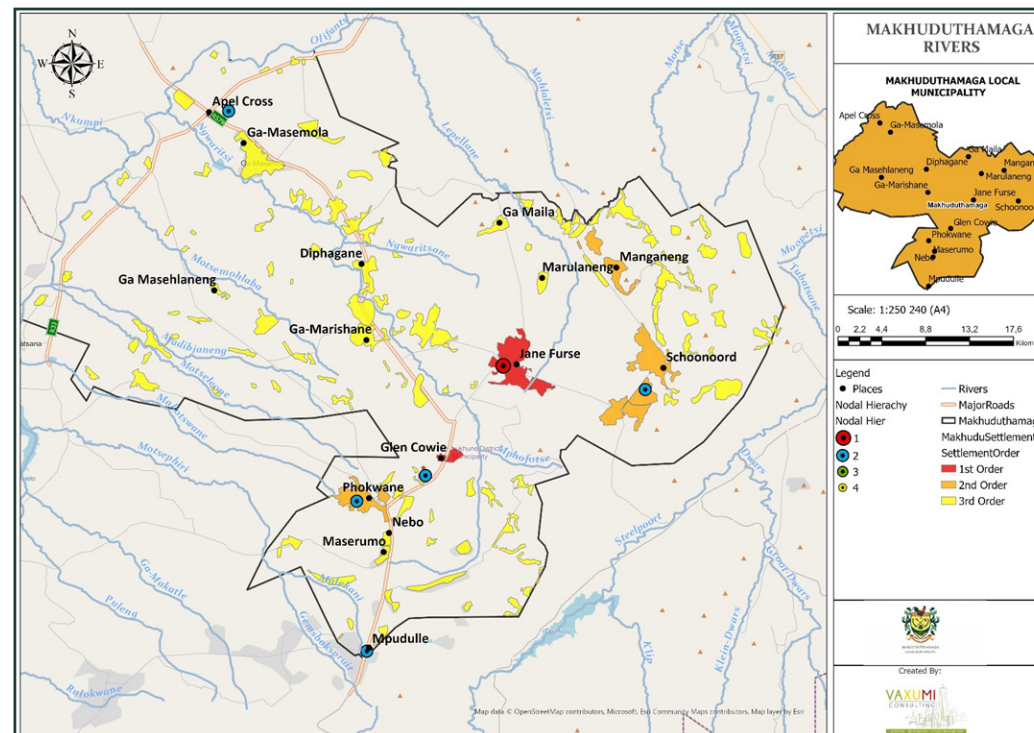
The area is drained by two major rivers, namely the Ngwaritsi River which flows in the interior of the municipality and the Ollifants River which serves as a border between Makhuduthamaga Municipality and Lepelle Nkumpi Local Municipality.

The Municipality does not have a dedicated hydrological dam where water is harvested and stored for domestic, agricultural and commercial use as depicted in map 10 below. It is through the use of surface water in the Sekhukhune District that water resources

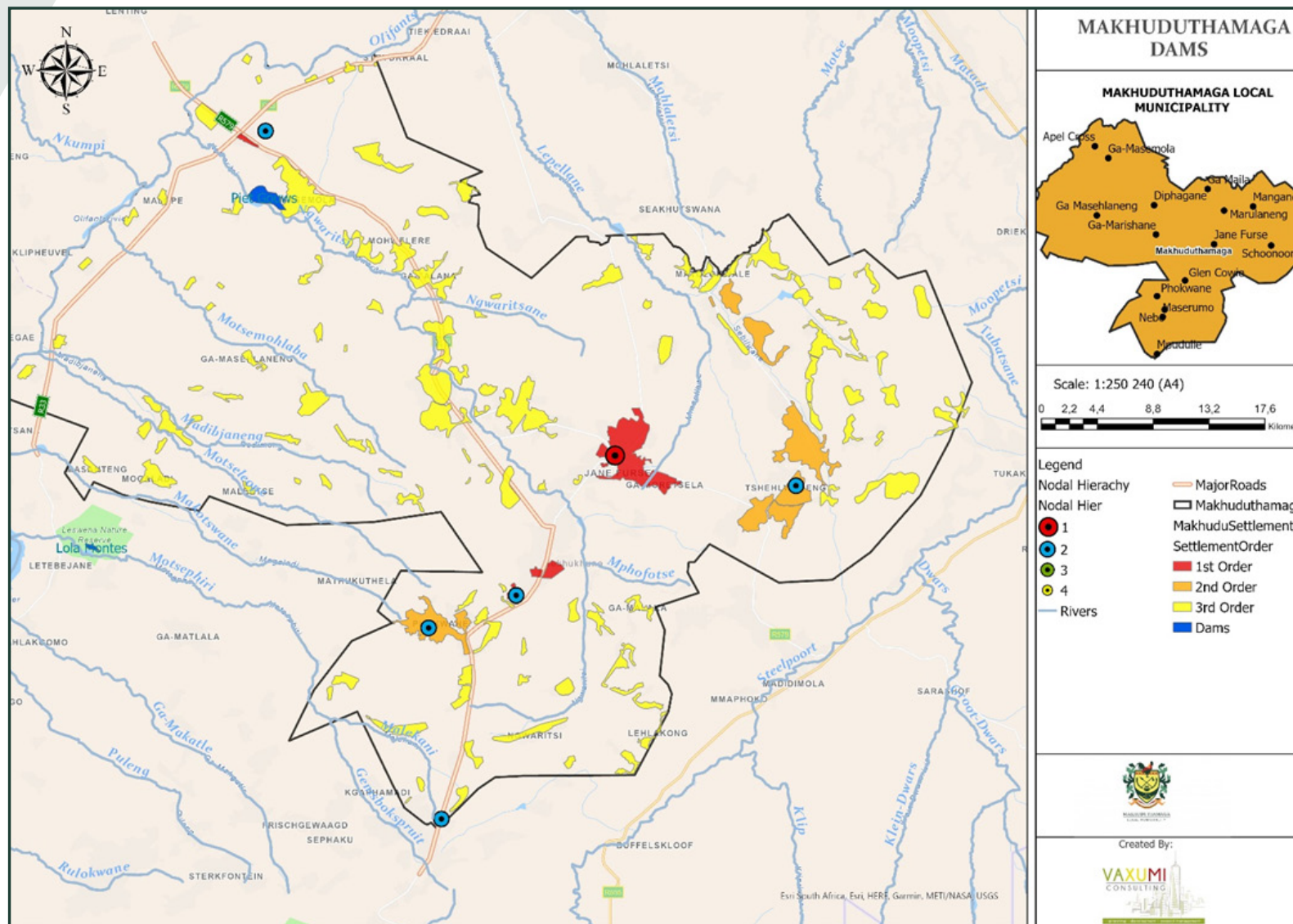
have to be adequately protected.

There is potential for the water requirements to increase due to:

- The establishment of the District Offices for the Sekhukhune community through their relocation from Lebogakomo to Jane Furse. This will serve as a pull factor for residential, business and related development in the area.
- Fast growing urban population due to uncontrolled growth of informal settlements.



Map 9: Location of rivers in Makhuduthamaga Municipality



Map 10: Shows hydrological dams of Limpopo Province

Challenges

- Settlement areas are encroaching on already stressed water resources. As a result, surface water resources are highly utilized in these areas for various purposes including domestic and sanitation use.
- Mining is generally non-existent in the Makhuduthamaga Municipality, but its development in the future can have significant impacts on surface water resources.
- Bulk water supply infrastructure is available but dysfunctional and over allocated. Water demands in the Makhuduthamaga Municipality are high. Several activities including agriculture, rural and urban domestic water usage can be identified as key sectors with high supply demands. As such, illegal connections and over allocations of water are affecting supplies and impacting on surface water resources.

4.5.2 Protected and Conservation Areas

Makhuduthamaga Municipality comprises of certain areas considered sensitive and on which development should either be limited or discouraged. Maps 11 and 12 spatially depicts environmental and conservation areas in the Makhuduthamaga Municipality:

- a) Water Bodies. This refers to resources such as drainage

channels, wetlands, rivers and floodplains. Such areas include areas Ngwaritsi River and other non-perennial channels such as Ngwaritsana River, wetlands within the municipality including the wetland traversing Jane Furse town.

- b) Steeply sloping and rocky areas (>20 degrees) include parts of small Mountains within the municipality and isolated rock outcrops around the municipality, as well as steep rocky and mountainous areas on the eastern part of the municipality on areas such as Schoonoord.
- c) Cultural or Historical Areas. Areas with rich cultural and historical potential are found in Mamone (Kgoshi Mampuru II heritage site), Ga-Phaahla/Ga-Marishane (Manche Heritage site) and Tisane Cultural sites.
- d) Thicket and Bushland & Natural Woodland. A large part of the municipality area especially towards the central, western and northern parts of the municipality comprises of bushes mixed with grassland which is suitable for grazing.

Challenges

- High potential arable soils are scarce in South Africa, with less than 4.5% of the country comprising such soils, while Limpopo Province has a higher figure, of 12.1% of the Province's soils which is also under constant threat of human invasion (Paterson, 2012). It is therefore important that such areas are utilized exclusively for

agriculture wherever possible.

The aforesaid and insufficient and unpredictable rainfall in many parts of the municipality, should make the conservation of the high potential soils in the higher rainfall areas the highest priority for the municipality.

Pressure for non-agricultural development on these areas needs to be identified and averted.

- Poor or lack of rain water and river water harvesting and storage initiatives through the use of hydrological dams.
- Lack of dedicated nature reserves for proper conservation in the municipality.
- Poor management and maintenance of cultural and areas of historical significance, as well as poor marketing thereof.

4.5.3 Biodiversity and Ecosystems

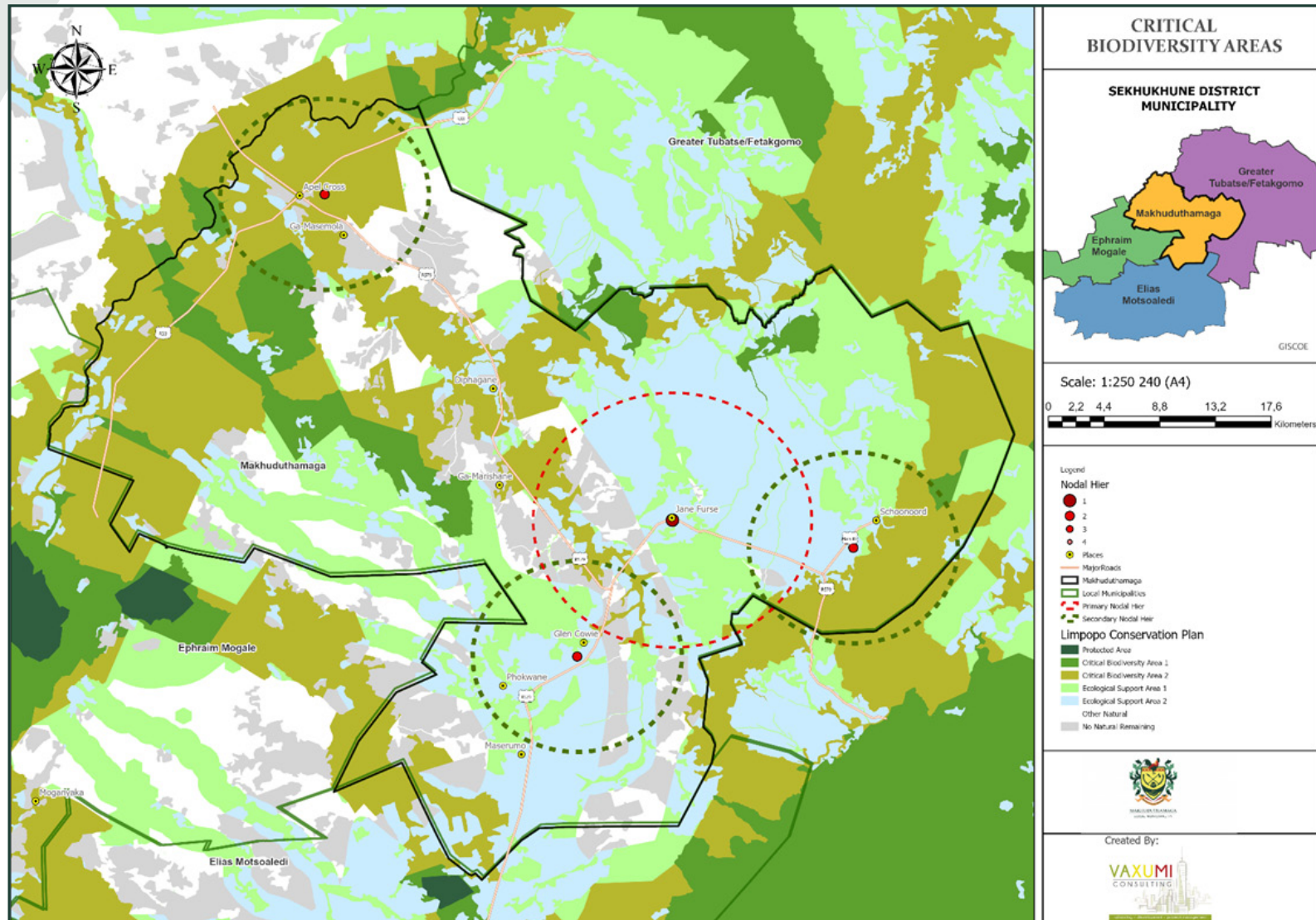
In 2017, The Limpopo Department of Economic Development, Environment and Tourism (LE-DET) initiated the development of the Sekhukhune District Bioregional Plan (SDBP). It is through the

SDBP that spatial biodiversity priorities are effectively incorporated into land-use and development planning, thereby bringing synergy between environmental sustainability and economic development in the area.

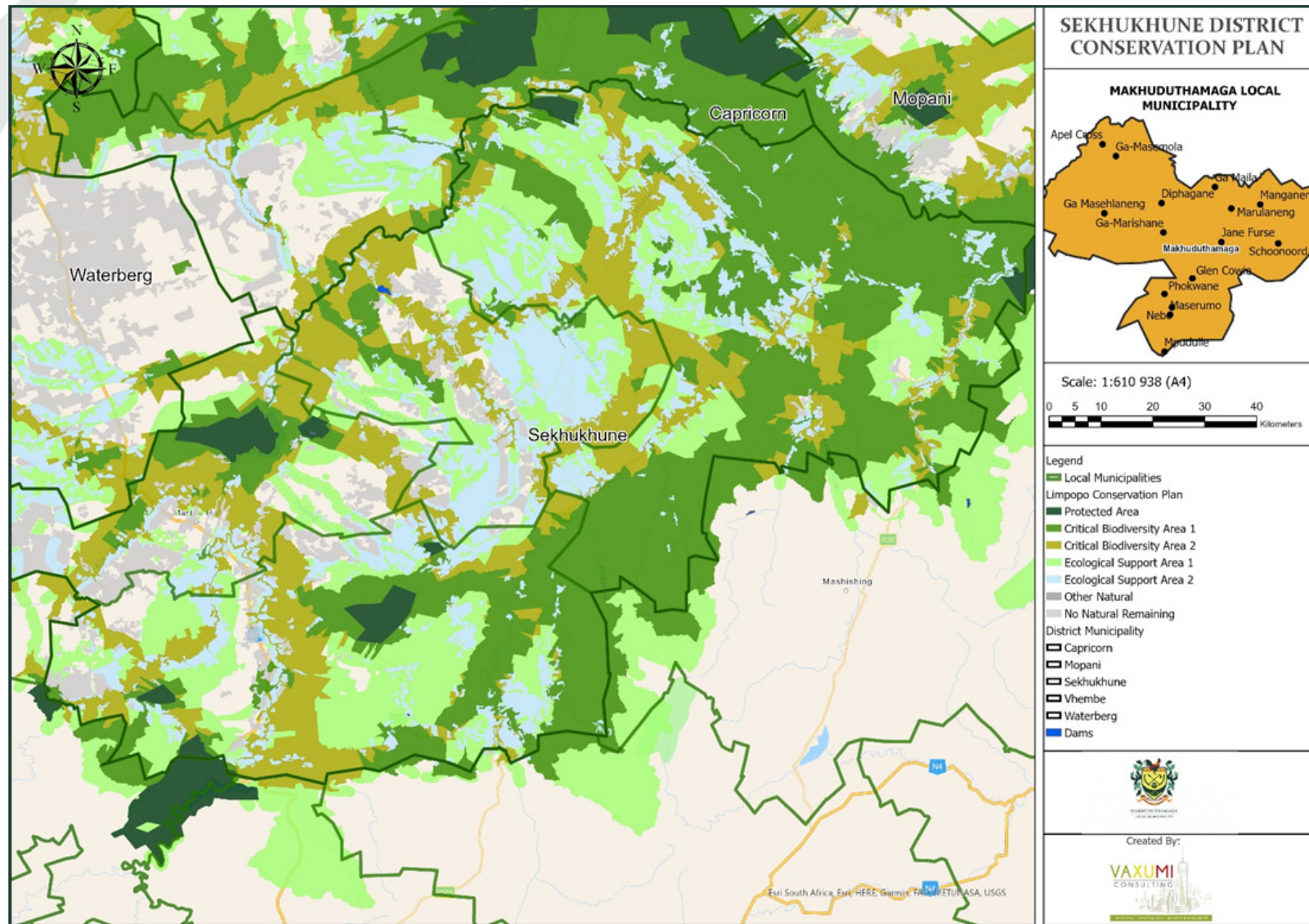
With regard to biodiversity, a number of pockets areas are considered to be of significant value. The following four biodiversity management areas were identified in the Limpopo Conservation Plan (refer to Tables 7 and 8):

- Protected Areas (nature reserves etc) which are categorized into Ecological Support Areas One (ESA 1 and Ecological Support Areas Two (ESA 2);
- Critical Biodiversity Areas (CBA) 1 areas which can be considered to be “irreplaceable”;
- Critical Biodiversity Areas (CBA) 2 areas where conservation is “optional” but highly desirable.

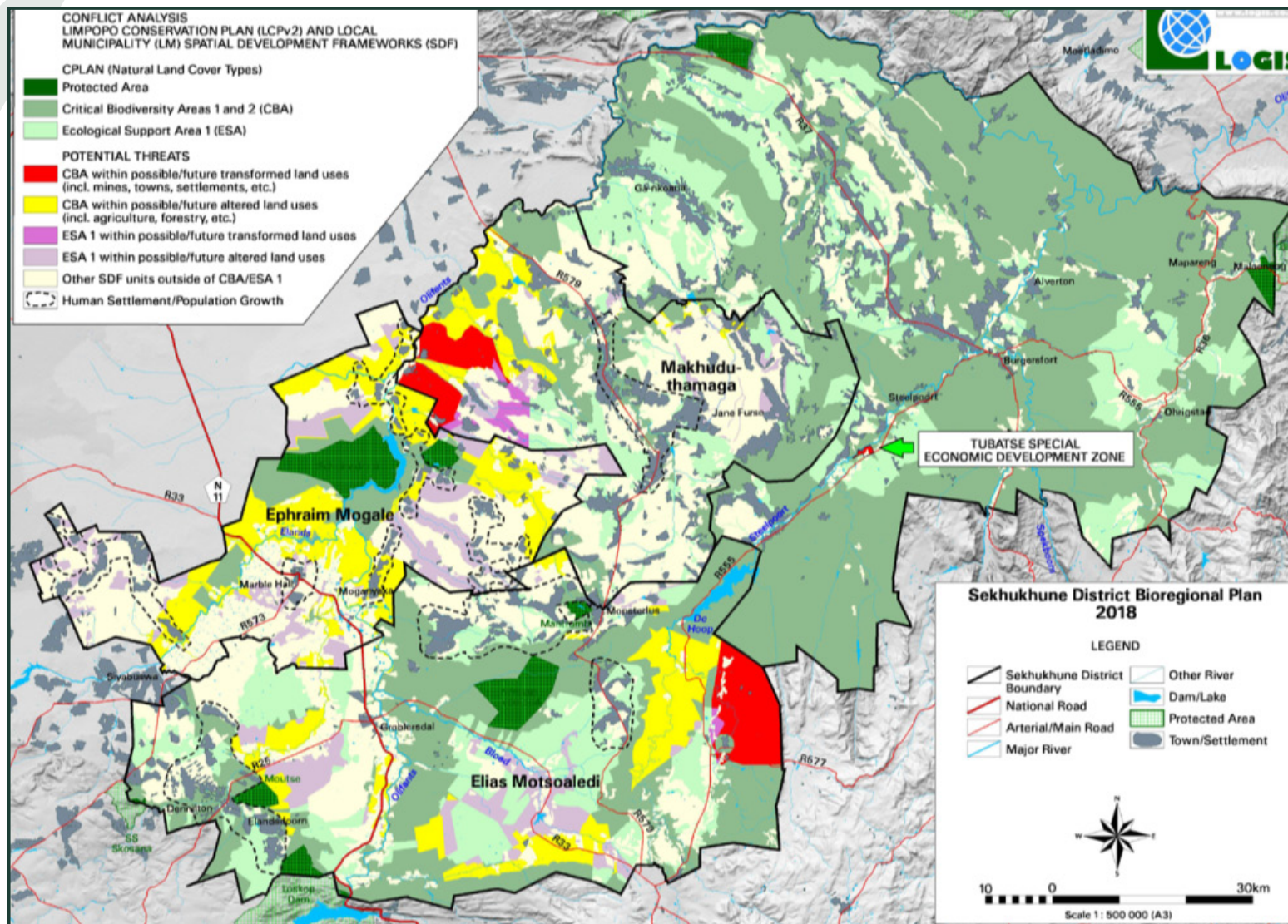
The current Systematic Biodiversity Plan for the province is the Limpopo Conservation Plan version 2, the purpose of which is to inform land-use planning and development on a provincial scale and to aid in natural resource management.



Map 11: Critical biodiversity areas



Map 12: Conservation Plan Sekhukhune District



Map 13: Shows the relationship between Limpopo Conservation Plan and SDFs of local municipality within Sekhukhune District Municipality

The overlay of local municipality SDFs with the CBA and ESA areas within the District was un-dertaken in terms of simplified SDF zones as follows:

- Transformed, including towns, settlements, strategic development areas, mining and brick works.
- Altered, including extensive agriculture, grazing, crop farming, cultivated land, subsistence agriculture and land with arable capability.
- Natural and near-natural, including Protected Areas, conservancies. Eco-tourism areas and wildlife areas.

No distinction has been made between existing and planned land uses. The intent of this over-lay is to illustrate potential non-alignments in the SDF zones used for land use planning purposes by the various local municipalities. The following is relevant with regards to this overlay:

- The areas shaded in red indicate non-alignments between CBA areas and transformed land uses. These transformed land uses represent a loss of CBAs, and a threat to the biodiversity targets set for the Province, in general, and the district, in particular.

CBA1 areas are incompatible with urban land uses, intensive farming arable agriculture, small-holdings and mining.

CBA2 areas are incompatible with urban land uses, intensification of current agricultural practices and mining.

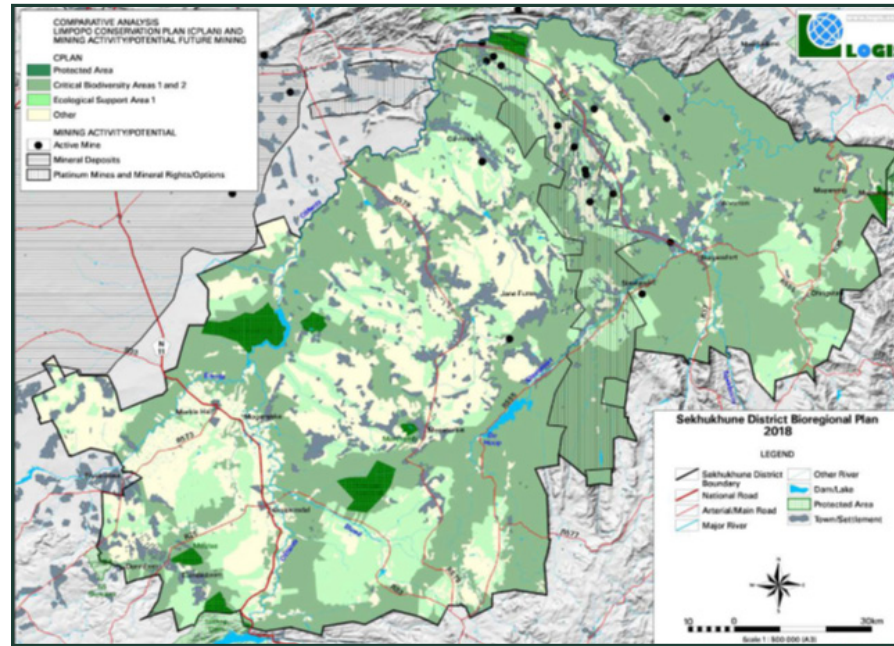
In this respect, non-alignments, the following areas were noted for Makhuduthamaga Municipality:

- Within Makhuduthamaga Municipality, mineral deposits are located in the south west, future development areas are located along the R579 in the centre of the municipality.

Of note, is that the non-alignment areas with Makhuduthamaga Municipality all lay within endemic ecosystems.

The Critical Biodiversity Area and Ecological Support Area map for the Sekhukhune District Municipality was reviewed in order to align with the Makhuduthamaga Municipality SDFs. The outcome thereof is as follows:

- The location of certain CBAs was changed in cases where the biodiversity target for the features concerned could be met in an alternative site where there was no conflict or potential conflict.
- CBA 1 were retained where it was critical for a feature (i.e., if the CBA was irreplaceable).
- Certain CBAs were be reclassified as ESA 2 where they were selected primarily for securing ecological processes and have subsequently been heavily impacted.



Map 14: Land cover and mining in Sekhukhune District Municipality

The impact of biodiversity management, land cover and mining in Makhuduthamaga Municipality

Currently Makhuduthamaga Municipality does not have active mines that are negatively impacting on the environment as depicted in Map 15 above. This does not mean that Makhuduthamaga Municipality may not have active mines in future. For proper land use planning and management, mining and prospecting applications in the Makhuduthamaga Municipal area must be critically interrogated in terms of risk to biodiversity targets, endemism, water security, ecological processes, ecosystem corridors and connectivity and development sustainability. Appropriate offsets must be recommended where necessary.

Of note is that, although the Department of Mineral Resources and Energy issues mining right, the municipality may refuse a land use application for the proposed mine.

Table 7 provides a summary of Biodiversity Management Guidelines for the Makhuduthamaga Municipality with regard to general management, infrastructure development and biodiversity development and biodiversity management:

Management Unit	Management Parameter	Management Principle
Biodiversity Areas	General Management Principles in the Limpopo Conservation Plan for CBAs 1 and 2	Keep in a natural state
Biodiversity Areas	General Management Principles in the Limpopo Conservation Plan for ESAs 1 and 2.	Keep in an ecologically functional state
Potential Urban Development	General Management Principles for areas falling outside the four management zones in the Limpopo Conservation Plan.	Develop these areas densely to prevent urban sprawl and reduce the physical, ecological and carbon footprint of development areas.
Tourism Corridor	<p>Develop areas outside LCP Biodiversity areas in accordance with development guidelines.</p> <p>Develop areas inside LCP Biodiversity areas in accordance with development guidelines.</p>	Concentrate eco-tourism developments outside LCP Biodiversity areas and develop only a fixed number of facilities inside the CBAs according to development guidelines.

Urban Areas	Give development with-in existing urban areas preference and densify existing villages and nodes according to the hierarchy of settle-ments identified in the Spatial Development Plan for Makhuduth-amaga Municipality.	<p>Improve Municipal Ser-vices in rural settle-ments close to major nodes within Ma-khuduthamaga Municipality;</p> <p>Improve Waste Management and Land Use Management;</p> <p>Implement the enforcement of NEMA EIA regulations for new developments.</p>
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Table 7: *Biodiversity management guidelines for Makhuduthamaga Municipality*

The Limpopo Bioregional Plan identified threats to biodiversity and also proposed solutions for each of the threats identified. The following table reflects threats that are relevant to the Ma-khuduthamaga Municipality

	Threat		Solution/ mitigation measure
<p>CBA1 compatible with: Conservation.</p> <p>Game farming (strict controls)</p> <p>Ecotourism (strict controls).</p> <p>Extensive live-stock (strict controls).</p> <p>Support infra-structure.</p> <p>Urban open space.</p>	<p>Potential loss of irreplaceable sites due to land uses that result in irreversible modification of natural habitat (towns, settlements, mining).</p>		<p>Verify the nature and extent of modification, if any.</p> <p>Verify the loss of biodiversity features, if any.</p> <p>Capacitate local, authorities, especial the planning and environmental units, to enforce the bioregional plan.</p>
	<p>Potential threat to irreplaceable sites due to altered land uses (degraded land, agriculture, forestry)</p>		<p>Enforce EIA requirements in all CBA1 areas.</p>

	Threat	Solution/ mitigation measure
		<p>Verify the nature and extent of land use alteration, if any.</p> <p>Verify the loss of biodiversity targets, if any.</p> <p>Amend the Vhembe District Bioregional Plan (and Limpopo Conservation Plan) to reflect required exclusions and to achieve provincial targets.</p> <p>Capacitate local, district and provincial authorities to enforce the bioregional plan.</p> <p>Enforce EIA requirements in all CBA1 areas. Institute penalties if required.</p> <p>Enforce WULA requirements in all CBA1 areas. Institute penalties if required.</p> <p>Enforce planning controls to stop the spread of incompatible land use.</p> <p>Monitor threat areas for further spread of incompatible land use.</p> <p>Monitor trends in other areas.</p>

	Threat	Solution/ mitigation measure
	Threat to irreplace-able sites due to incompatible SDF zonation	<p>Revise SDF land uses for proper alignment with CBA1 and the bioregional plan.</p> <p>Use the bioregional plan for land development applications to ensure alignment and compatibility.</p> <p>Where necessary as an interim measure, utilise the bioregional plan in parallel with the SDF to adjudicate compatibility of land use.</p> <p>Enforce EIA requirements in all CBA1 areas.</p> <p>Enforce planning controls to stop the development of incompatible land uses in CBA1 areas.</p>

	Threat	Solution/ mitigation measure
<p>ESA1 compatible with: All CBA2 activities.</p> <p>Low density rural residential (eco function).</p> <p>Smallholdings (eco function).</p> <p>Resorts (eco function).</p>	<p>Potential loss of ecological processes that support CBAs due to land uses that result in irreversible modification of natural habitat (towns, settlements, mining).</p> <p>Potential threat to ecological processes that support CBAs due to altered land uses (degraded land, agriculture, forestry).</p>	<p>Capacitate local, district and provincial authorities to enforce the bioregional plan.</p> <p>Enforce EIA requirements in all ESA1 areas. Institute penalties if required.</p> <p>Enforce WULA requirements in all ESA1 areas. Institute penalties if required.</p> <p>Enforce planning controls to stop the spread of incompatible land use.</p> <p>Monitor threat areas for further spread of incompatible land use.</p> <p>Monitor trends in other areas.</p>

	Threat	Solution/ mitigation measure
	Threat to ecological processes that support CBAs due to incompatible SDF zonation.	<p>Revise SDF land uses to align with ESA1 areas of the bioregional plan.</p> <p>Where necessary as an interim measure, utilise the bioregional plan in parallel with the SDF to adjudicate compatibility of land use.</p> <p>Enforce EIA requirements in all ESA1 areas.</p> <p>Enforce planning controls to stop the development of incompatible land uses in ESA1 areas.</p>

Table 8: Sekhukhune Bioregional Plan, Source: LEDET, 2018,

4.5.4 Synthesis

- A large part of the municipality comprises of soils of moderate potential which is moderately suitable for agricultural development;
- The municipality must take advantage of areas suitable for certain development initiatives particularly economic development in line with the recommendations of the Local Economic Development Study;
- The municipality must consult with the Department of Agriculture regarding intervention measures for agricultural development;
- The municipality has potential not yet developed its conservation areas and this has the potential to degrade land not yet protected;
- Large areas with grassland are suitable for animal grazing and must be protected against veld fires and deforestation;
- Sustainable utilization of areas with high potential is important for long-term agricultural production and food security must underpin all spatial planning and land use management. With its unpredictable rainfall patterns, Makhuduthamaga municipality should strive to conserve the high potential agricultural areas.

- Regarding the areas susceptible to water and especially wind erosion, where continued poor land use (such as over-grazing and incorrect cultivation of susceptible soils) will lead to an increase in areas affected by erosion and an increasingly degraded environment for the local population, the municipality must in partnership with the relevant stakeholders identify and develop mechanisms for management and protection of the environment from degradation.

4.6 Municipal Spatial Structure and Transportation Network Analysis

4.6.1 Spatial Structure

The municipality's spatial structure reflects a typical apartheid planning structure of fragment-ed and sparse rural settlements with very poor interconnectivity and services provision.

Overall, land use in the study area predominantly consists of rural villages which practice sub-sistence crop and cattle or goat farming. As mentioned earlier Makhuduthamaga Municipality constitutes one of the four local municipalities constituting Sekhukhune District Municipality alongside Elias Motsoaledi Local Municipality, Fetakgomo Tubatse Local Municipality and Ephraim Mogale Local Municipality. Areas of significant importance in the form of growth points are Jane Furse (district growth point), Apel Cross, Ga Masemola, Moratiwa, Schoonoord, Nebo and Phokwane.

The spatial structure of the Municipality is further disturbed by uncertainties and disputes in land use management. The Municipality's effort have been falling short in coordinating land use management in an integrated manner as traditional authorities continue to allocate land outside the Makhuduthamaga

Municipality policies and SPLUMA.

A case in point is the allocation of land that perpetuates fragmentation and sprawl across the municipality such as the Moretsele area outside Jane Furse as reflected in the picture below.



Picture set 4: Above depicts continued sprawl and fragmentation as a result of lack of integration in land allocation and management in Makhuduthamaga Municipality-Moretsele village case study

4.6.2 Transportation Network and Infrastructure

Two major roads serve as the main links between Makhuduthamaga municipality and the rest of its surrounding, namely (refer to Maps 16 and 17):

- R579 which is under the custodianship of SANRAL connects Makhuduthamaga Municipality to Polokwane via Lepelle Nkumpi Local Municipality in Lebowakgomo in

the north-western part of the Makhuduthamaga Municipality. The R579 also connects Makhuduthamaga Municipality with Elias Motsoaledi Local Municipality in the southern part en route to Mpumalanga Province;

- D2219 connects Makhuduthamaga Municipality with Fetakgomo Tubatse Local Municipality via Steelpoort;
- Other routes which are connector and distribution routes are reflected in table 9 below

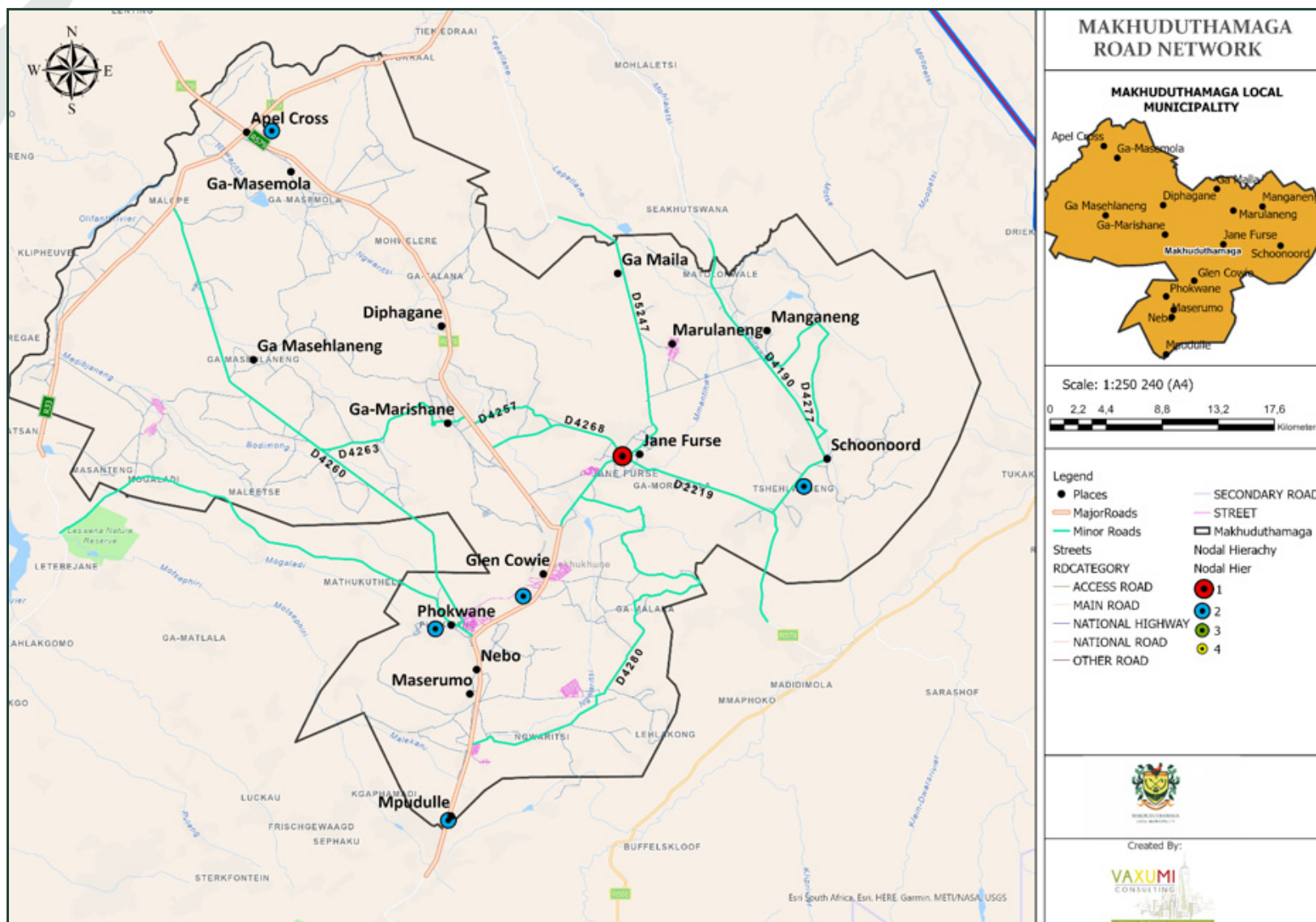


Picture set 5: *Generally road conditions are of a better standard to enable mobility in the region*

The provincial government and the Makhuduthamaga Municipality have shown a serious commitment towards the eradication and reduction of the backlog relating to unpaved roads within the jurisdiction of the municipality. This is evidenced by the full tarring of the major road R579 that serves as a strategic corridor for the municipality and beyond as well as its regular maintenance which makes it a better model in terms of its safety standards unlike some of the major roads in the province which are riddled with potholes. Through the Municipal Infrastructure Grant (MIG), the Makhuduthamaga Municipality has ensured that there is a continuous implementation of upgrades of internal streets and access roads that connects major settlements and areas of strategic importance. One such road is the Nebo by-pass that connects most settlements and provides better access to government services in the area.

[illegible]

Map 15: Location of roads in a district context



Map 16: Makhuduthamaga Municipality internal roads networks

The Makhuduthamaga Municipality has compiled a classification and hierarchy of roads taking into account the importance (regional and local) that each road plays. The table below pre-sents the hierarchy of roads for the municipality with the R579 being classified as a primary provincial road for the area.

Based on the assessment and review of literature, as well as filed surveys conducted on the identified roads, the project team proposes that the current roads hierarchy be maintained and that detailed traffic impact studies be conducted starting with primary arterial roads and the R579 as it passes through the growth points and nodes.

Strategic road net-work and hierarchy	Description of road class
Provincial road R579	Primary provincial arterial
Arterial routes Road: D4280,D4379,DD4250,D4200,D2219	<p>Primary arterial routes providing vehicular mobility with limited off-street access. These roads are generally the ring roads around districts providing external circulation but can also traverse the district itself.</p> <p>Facilitates regional mobility of traffic.</p> <p>Characterized by regional route continuity.</p> <p>Generally, the nature of these roads would not allow the construction of lay-bys or other public transport facilities. In rural areas like Makhuduthamaga Municipality these routes should also have a public transport role.</p> <p>However, a thoroughly assessed and traffic impact analysis should be undertaken where the need for a lay-by or public transport facility has been identified especially rural and peri-urban areas.</p>

Strategic road net-work and hierarchy	Description of road class
<p>Distributor and collector routes Roads:D4225,D4287,D4370,D4285,D4280,D4254,D4217,D4350,D4267</p>	<p>Minor arterial road /collector road serving as internal vehicular cir-culation road within the municipal area. Primary arterial routes providing vehicular mobility with limited off-street access.</p> <p>These roads serve a municipal /regional mobility function-connecting places of importance throughout the municipality and linking to the wider region.</p> <p>Generally, the nature of these roads would allow the construc-tion of lay-bys or other public transport facilities.</p> <p>Facilitates long distance traffic mobility.</p>
<p>Internal roads: Collector and streets</p>	<p>There is currently a weak internal road hierarchy. The informal na-ture of most of the villages makes it very difficult to development an appropriate hierarchy. The SDF will provide proposals and guidelines but detail transport and movement studies will have to be done. At local level there are no street names which further complicate the matter.</p> <p>Local collector roads serve as public transport routes and major pedestrians' routes. As a minimum, taxi pick up and drop off points need to be provided.</p>

Table 9: Road hierarchy for Makhuduthamaga Municipality (Source: Makhuduthamaga Munici-pality Reviewed SDF 2015)

Challenges:

- There is no rail line through Makhuduthamaga municipality, which would minimise the amount of heavily-loaded trucks on the roads, thus reducing the damage on the roads and the resultant need for heavy maintenance costs.
- Poor management of the road reserve , especially on busy intersections of the R579 route
- The public transport facilities are non-existent in some strategic areas and where they are available, they are in poor state and require upgrade.
- Untarred roads perpetuating the disconnect in dispersed villages
- Lack of coordination and alignment between municipality, province and SANRAL

4.6.3 Public and Air Transportation

The main mode of public transport within Makhuduthamaga Municipality as well as connecting the municipality to its surrounding is minibus taxi and bus.

Challenges related to public transport include:

- Lack of formal public transport facilities with all related amenities in some key nodal areas;
- The bad state of roads that increases the operation and maintenance costs for public transport operators.
- Lack of integration of the various transportation modes in nodal areas – especially the Jane Furse primary node

The main destinations for public transport services within the municipality are nodal points and areas of strategic importance. Main destinations include Jane Furse, Schoonoord, Phokwane, Moratiwa and Nebo. In areas such as Schoonoord and Nebo, the pull factor for public transport are government offices where services such as SASSA, Home Affairs, police and judi-cial services, health and education circuit offices are located.

Jane Furse offers a multiplicity of services including government services and to a larger extent retail facilities. Public transport destinations mainly used are for areas such as Polokwane and Lebowa kgomo, Steelpoort via R555 route, Stofberg in the Elias Motsoaledi Local Municipality via R579, and Gauteng Province. There is no air and rail transport in the study area.

4.6.4 Synthesis

Land availability: The Makhuduthamaga Municipality has a challenge of land availability in the sense that it does not own sufficient tracts of land for development. Most of the land parcels in the municipality are in the custody of traditional authorities. This results in development mov-ing at a slow pace due to the unavailability of prime land for development.

Illegal land invasion: Makhuduthamaga Municipality experiences the challenge of illegal land invasion and illegal land use especially in Jane Furse and along the R579 route. This creates a planning nightmare as precinct plans and township establishment projects become difficult to implement.

Rural sprawl: Another challenge is the legacy of poor planning for the existing settlements. Most of the rural villages have not been properly planned and in most cases, there is a challenge of settlement sprawl. This results in expensive government expenditure for the provision of infrastructure facilities.

Land Use Management: There is no formalised relationship between the Municipality and traditional authorities to bridge the gap on uncoordinated land allocation. This poses a serious hindrance on land use management.

The Municipality has however strived to put in place coordinated processes responsible for land use management. The Municipality currently has a Council approved land use scheme, SPLUMA compliant bylaw and are part of the joint district municipal planning tribunal.

While the State is the biggest landowner in the study area, the custodianship of such land parcels lies with the traditional authorities. There is also no certainty as to the boundaries and jurisdiction of each traditional authorities as there are conflicting land claims on same land parcels.

This results in the legitimate and legislated authority on spatial planning and land use management-Makhuduthamaga Municipality-playing a passive role on land development and allocation. This results in large percentage of land being allocated

by traditional authorities without following strategic plans such as the SDF and the Municipality's Land Use Management Scheme.

Resultant service costs: The cost per connection of basic services such as water, sewerage and electricity reticulation for most of the settlements is more than double the cost of providing such services in compact areas where densification is practiced.

Heritage Management: A Heritage Conservation Management Plan (HCMP) should be compiled for the identified sites and this should be implemented and monitored. Gathered information should be digitized as part of a Geographic Information System (GIS) based database.

4.7 Social Facilities

This section covers the spatial location of social amenities such as education, health, sports, communication, social development and related.

4.7.1 Education

Makhuduthamaga Municipality has a total of 252 schools of which 96 are secondary and 156 are primary schools. There are a further 2 combined schools and 2 private schools. See table 10 below. There is no tertiary institution in Makhuduthamaga Municipality.

Secondary schools	Primary schools	Combined schools	Private schools	Special schools	Tertiary institutions
96	156	2	2	3	0

Table 10: List of educational facilities in Makhuduthamaga Municipality
(Source: Department of Education 2019 and Makhuduthamaga IDP, 2016-2021).

To reflect the spatial location of educational facilities in the Makhuduthamaga Municipality, map 18 below can be used as a reference point of departure. The educational facilities, in the form of primary and secondary schools, are evenly distributed across the landscape of the Municipality. There are circuit offices of the Limpopo Department of Education in the strategic areas of Nebo, Schoonoord and Moratiwa

4.7.2 Health facilities

The Makhuduthamaga Municipality has a total of 23 health facilities comprising of 21 clinics, 2 fully-fledged hospital which are located in various wards as per map 19 below.

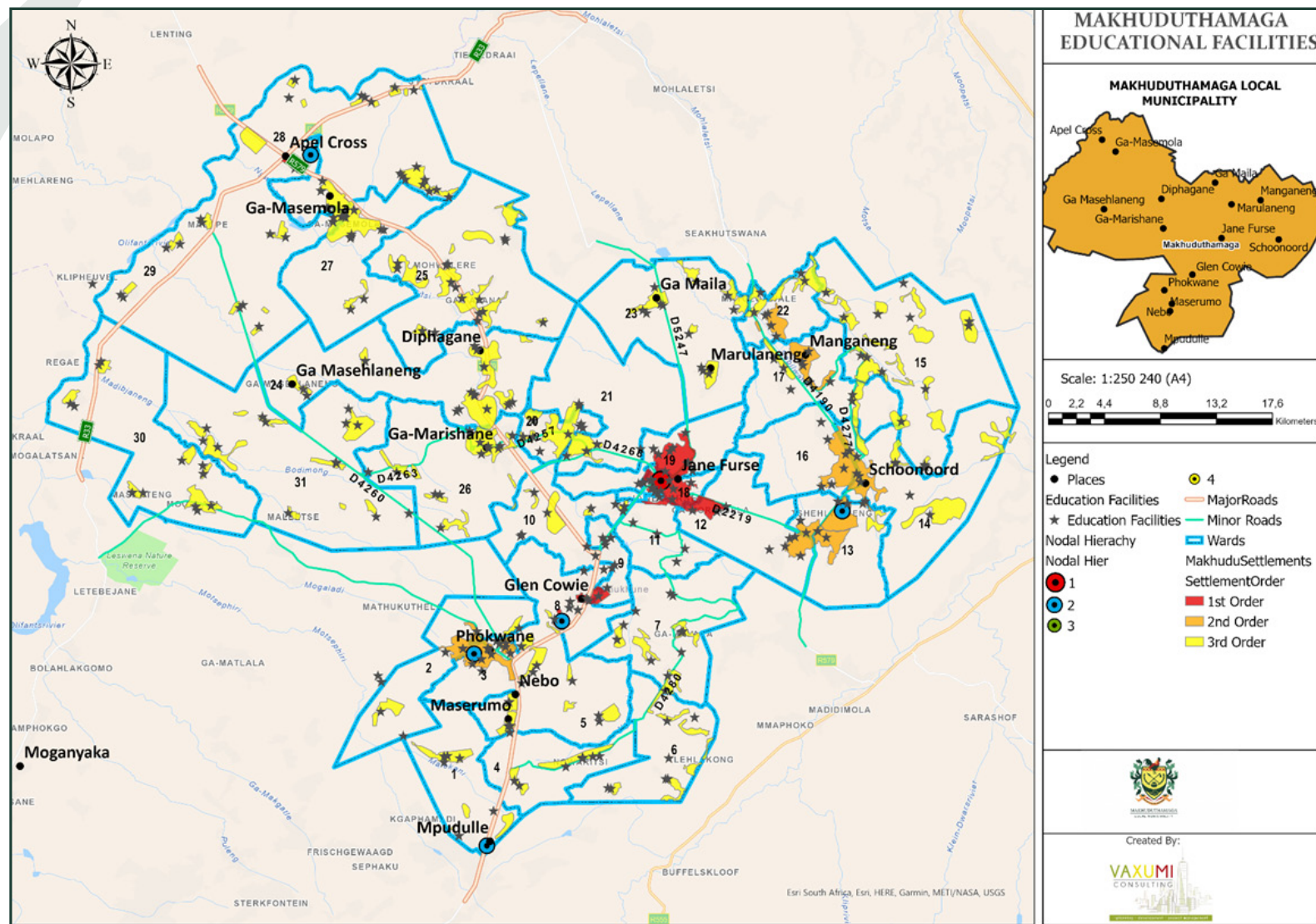
The hospitals are located in Glen Couwie (St Ritas) and Jane Furse, the former being an establishment of the missionaries while the latter is a modern hospital established under the democratic dispensation.

According to the Makhuduthamaga Municipality IDP 2016-2021, the health service is complemented by an additional 45 mobile clinic services see map 18

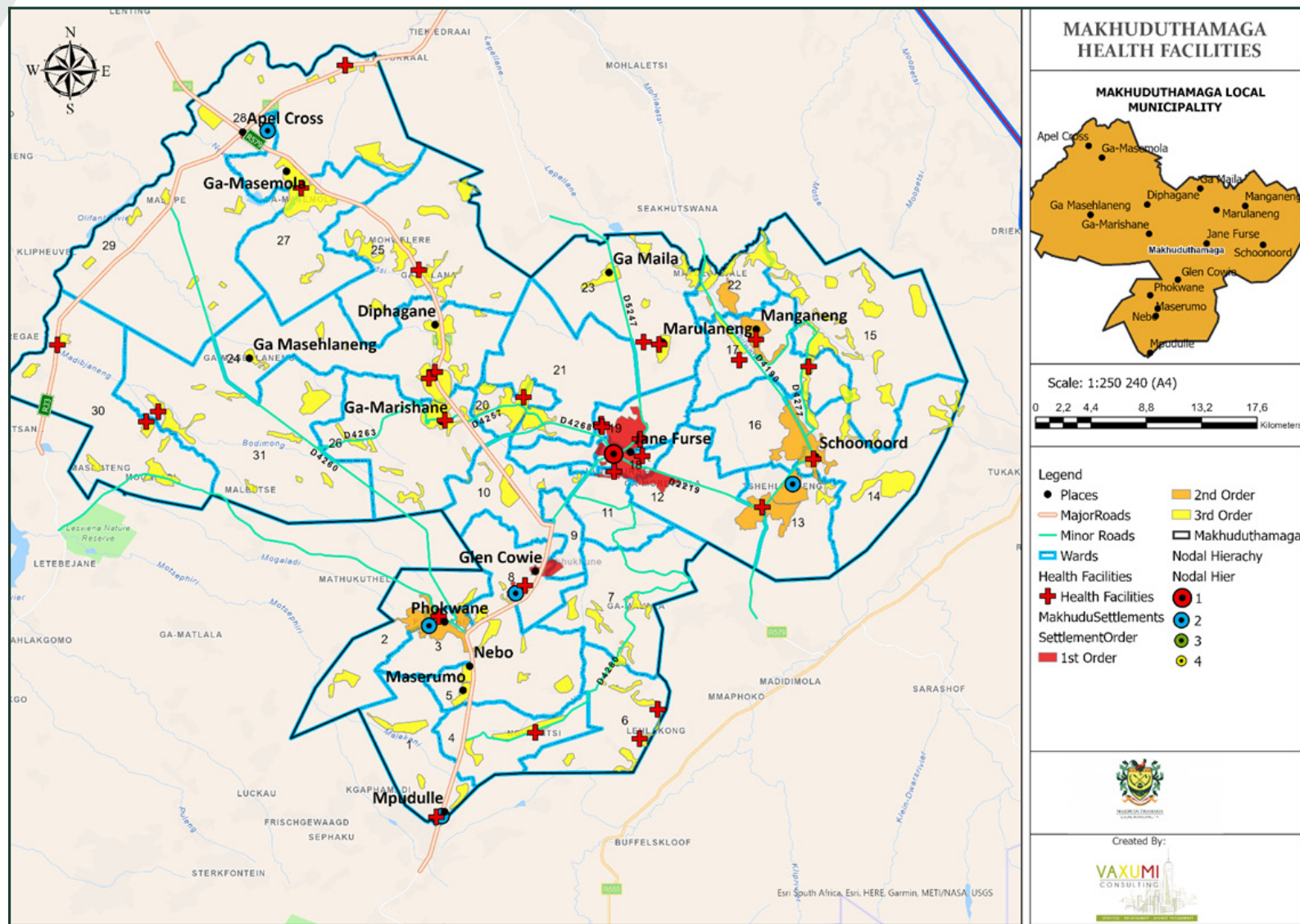
4.7.3 Safety and Security

According to Makhuduthamaga Municipality IDP 2016/21, as well as sites visits, the Makhuduthamaga Municipality has a total of five police stations located in Schoonoord, Nebo and Apel Cross (Ga Masemola), Jane Furse and Hlogotlou as reflected in map 20. It should be noted that police stations are not confined to municipal boundaries hence there are shared police services with neighbouring municipalities of Elias Motsoaledi Local Municipality through the Hlogotlou Police station and a shared service with Fetakgomo Tubatse Local Municipality through the Schoonoord (Sekhukhune) Police station.

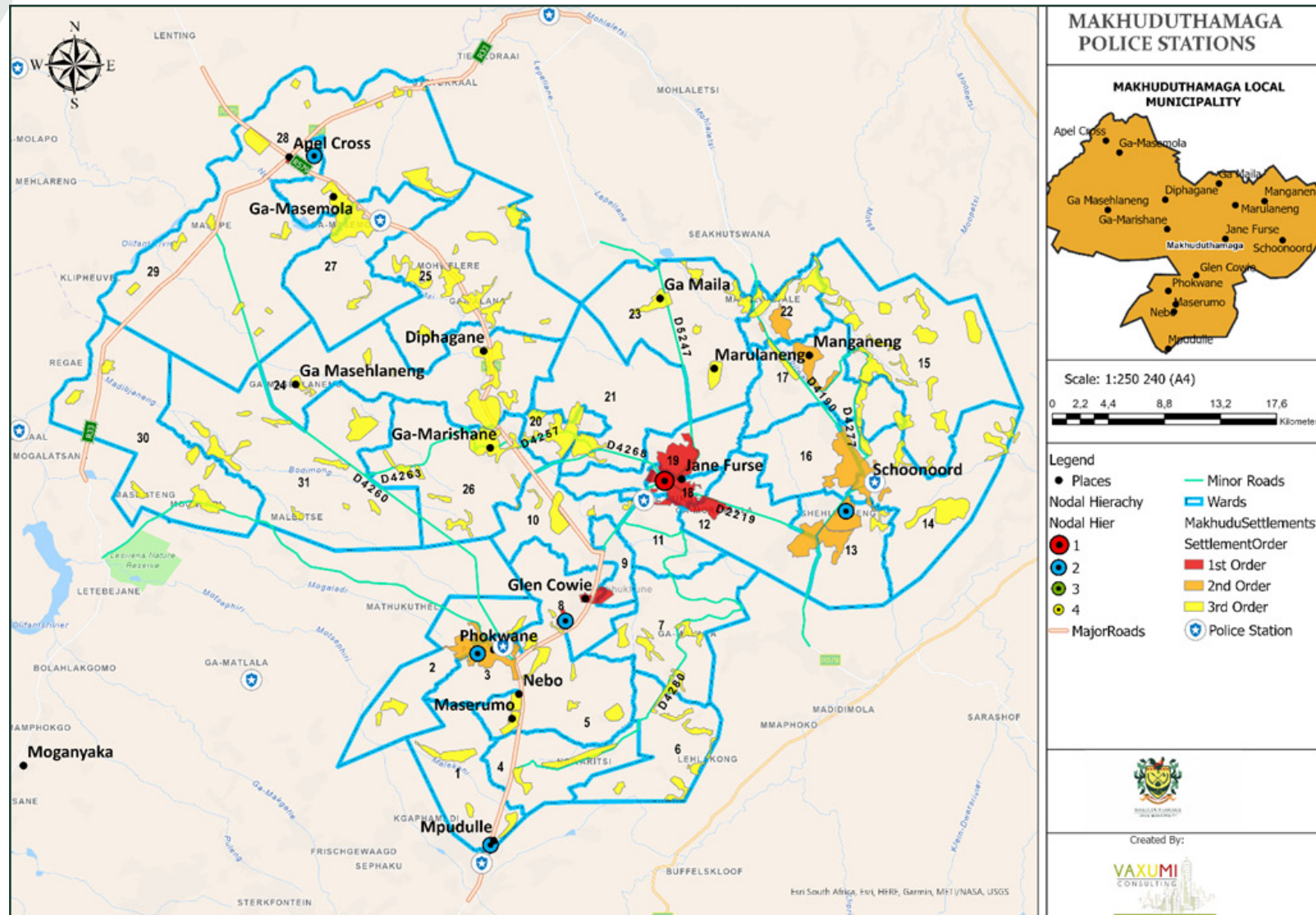
If norms and standards for the provision of police services are something to go by, Makhuduthamaga Municipality will require additional seven police stations due to the norm being one police station services 25 000 people map 19



Map 17: Spatial distribution of educational facilities in Makhuduthamaga Municipality



Map 18: Spatial distribution of health facilities



Map 19: Spatial location of police station

4.7.4 Telecommunication infrastructure

Importantly, is the degree to which a municipality's population is linked into ICT, with the importance reflecting the degree to which a municipality is able to respond to the opportunities of the fourth industrial revolution.

Figure 6 looks at access to telecommunications. This includes:

- The number of people in the country who have access to land line telephone communication.
- The number of people who have access to mobile phone communication;

This is different from landline connections in that mobile phones offer other features and modes of communicating, for example, texting. It also allows people to use the phone for access to the internet and provides users with access freely, i.e. without being bound by the location of the telecommunication facility.

- The level of internet penetration in the country per jurisdiction determines the levels of development for such areas.

The level of technology is also an important determinant of economic growth. Thus, it is the technological progress which keeps the economy moving. Inventions and innovations have been largely responsible for rapid economic growth in developed countries. Sekhukhune District, in general, and Makhuduthamaga municipality, in particular, are some of the South African communities that are disadvantaged by this ICT handicap thereby disabling their economic growth.

The project team is of the understanding that when social and economic development activities are able to benefit from ICT implementations, the ICT effects are better access to information and expertise, increased competitiveness and access to new markets including global markets, administrative efficiencies from low transaction.

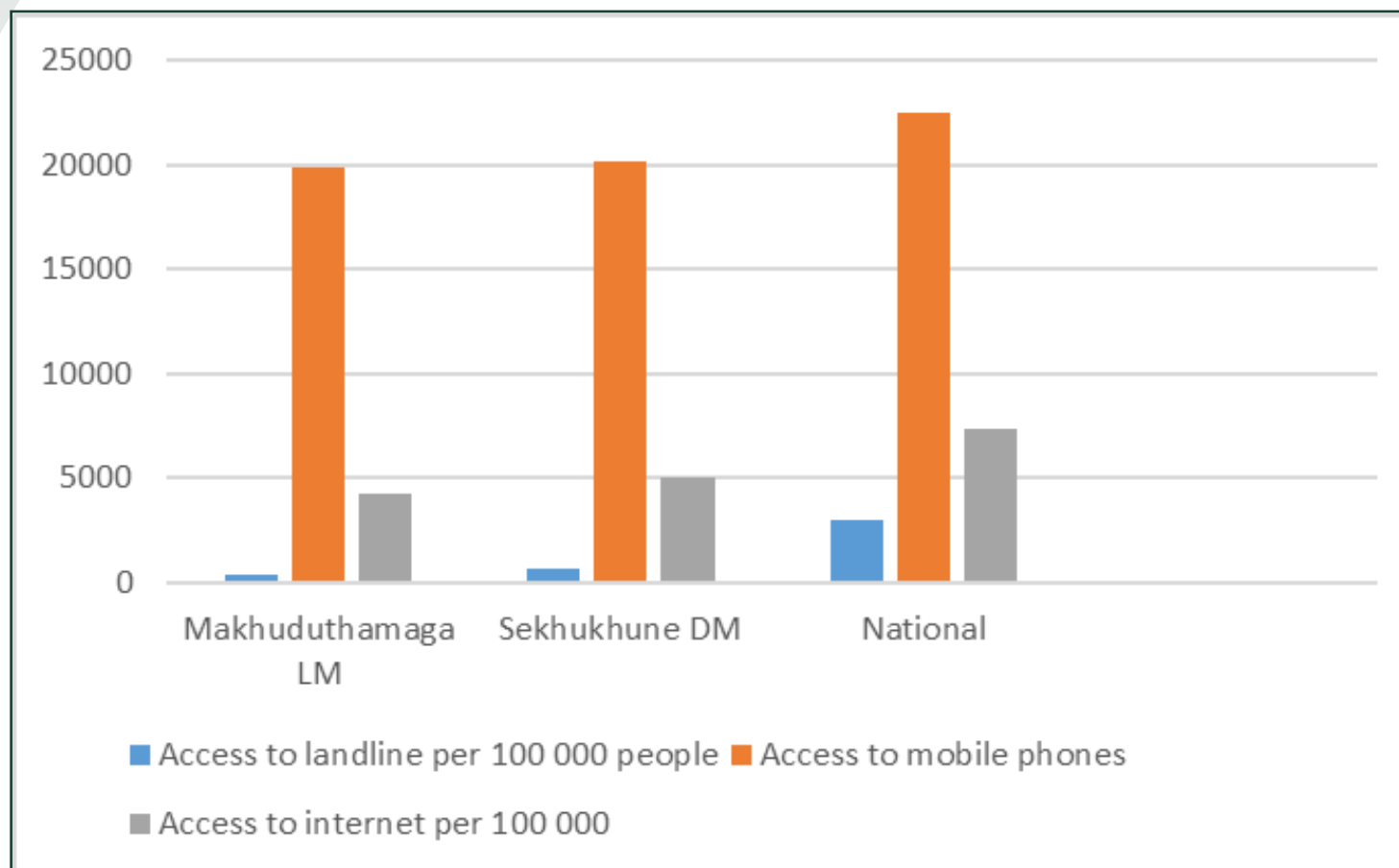


Figure 6: Depicts access to various forms of communication for Makhuduthamaga Municipality
(Source: Municipal Demarcation Board, 2018 Capacity Assessments)

Figure 6 above indicates that in terms of ICT, the Makhuduthamaga Municipality is not doing well as the bulk of its communities do not have access to reliable ICT, especially internet access.

4.7.5 Spatial Location of other Amenities

Postal services

There is the provision of eight (8) postal services at Phokoane, Nebo, Jane Furse, Masemola (Apel Cross), GaMarishane, Mamone, Glen Couwie and Schoonoord (Sekhukhune). However, the provision of postal services should be understood as a service in extinction due to the technological advances occasioned by improved communication from ICT.

Sports and recreation facilities

There is a standard indoor sports and recreation facility at Schoonoord. There are also semi standard sports facilities in the form of mini stadia at Apel Cross (Masemola), Phokwane and a legacy sports complex at Jane Furse which necessitates further upgrades to make them fit for multiple sporting codes.

Library services

Standard library services are in place at Phokoane, Ga-Phaahla, Patantswane and Jane Furse.

Traffic and licensing

There are two traffic and licensing centres in the municipality located at Nebo and Schoonoord (Sekhukhune) offering licensing services, vehicle registration services, and related administrative services.

4.7.6 Synthesis

The spatial location of social amenities reflects the attempt by government to strive to reach the majority of settlements in the study area.

There is a pattern of trying to cluster some social amenities in close proximity to each other as is the case in Schoonoord and Nebo where related social services are placed in close proximity to each other. It is in these clustered amenities where the concept of a Thusong Services Centre should have been enhanced.

However, fragmentation of settlements affects the effective and efficient provisioning of social services to reach most communities. If one considers that if most of the settlements were clustered together, instead of various settlements of say 70 to 100 even then the provision of one clinic, standard sports facility, and one police station would have made more impact than in the current form.

The spatial structure of the municipality through its fragmented settlements makes it difficult for social services to be rendered in an effective and efficient manner in line with the norms and standard for the required services.

Another observation is the underutilization of library services in the municipal area which might be caused by the relevance of study materials available or the lack of adequate ICT connectivity as is the case with the standard library services at Phokwane.

Another aspect that needs serious attention is the ICT Connectivity of settlements which can boost academic excellence for learners in the area as well as business development for entre-preneurs.

The focus of the status quo analysis on this aspect will focus on the provision of engineering services in the form of water and sanitation, energy provision and waste management.

4.8 Engineering Services

Household Services at a glance	2016	2011
Flush toilet connected to sewerage	2.9%	3.0%
Weekly refuse removal	1.3%	2.0%
Piped water inside dwelling	3.4%	6.0%
Electricity for lighting	93.2%	90.2%

Table 11: Reflects a summary of overall engineering services for Makhuduthamaga Municipality

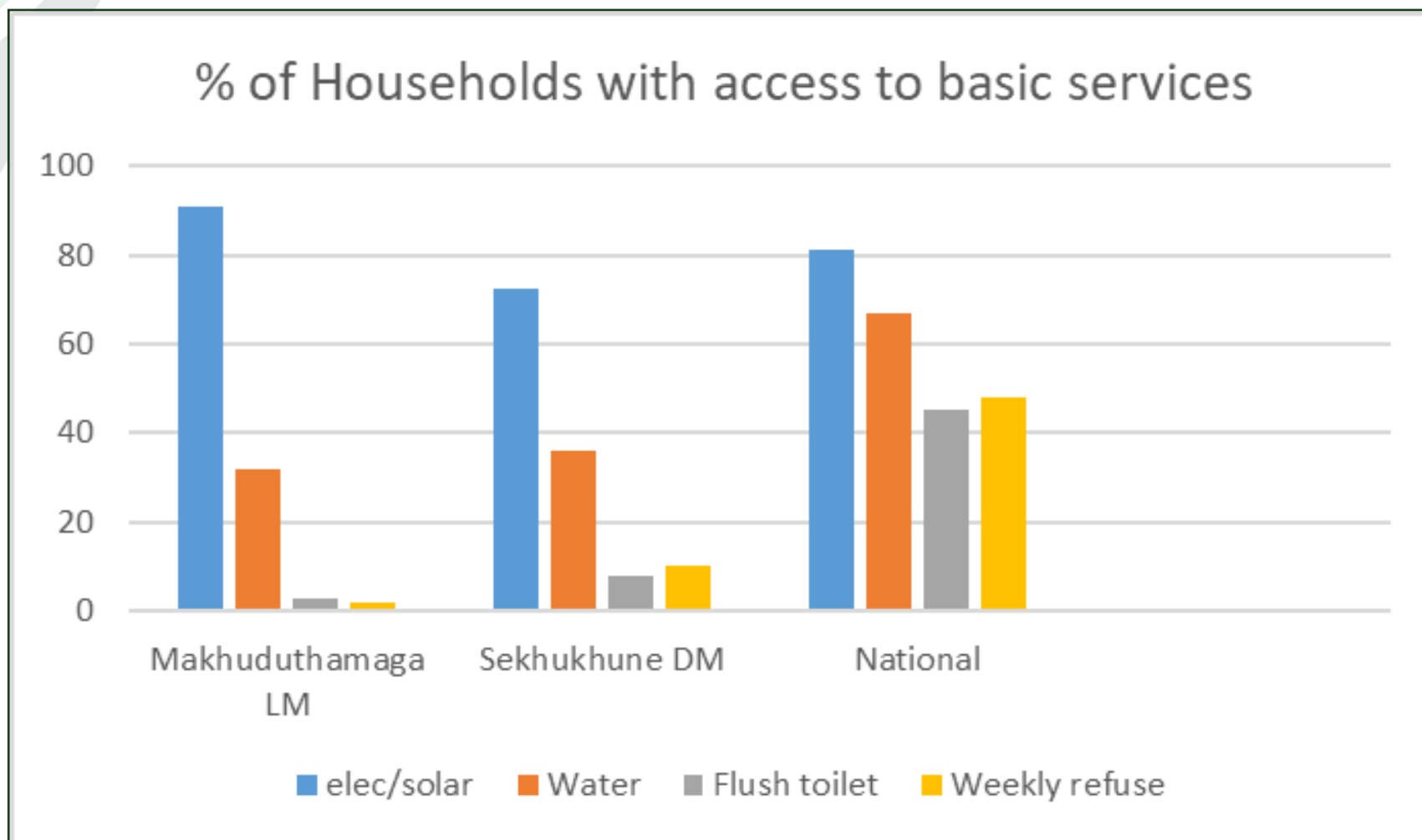


Figure 8: Percentage of households with access to basic services
(Source: Municipal Demarcation Board, 2018 Capacity Assessments)

4.8.1 Water and Sanitation

The provision of water and sanitation for the municipality lies within the powers and functions of the Sekhukhune District Municipality. The District Municipality is both the water services authority and also the water services provider which basically means that the Sekhukhune District Municipality is responsible for bulk water supply and reticulation, as well as the operation, maintenance and management of the infrastructure.

4.8.1.1 Water and sanitation

The provision of sustainable and safe Water and sanitation remains a challenge to the large sections of the municipality's communities. While there is infrastructure for water provision in the majority of settlements of the municipality, there is still chronic water shortages in terms of access to households within their yards. Water shortages extend even to areas of strategic importance such as Phokoane, Schoonoord, Glen Couwie and Moratiwa.

On the provision of adequate sanitation, the municipality through COGHSTA and District Municipality has provided a number of VIP latrines to settlements coupled with the provision of low-cost housing to communities.

The non-availability of reliable and sustainable water borne sewerage system is a serious cause for concern, especially in

stimulating the economic development of the area from rapid urbanisation of its growth points and nodes.

4.8.2 Waste Management

This service falls within the powers and functions of the municipality. The provision of waste management services is still at low level in the municipality. Less than two percent of the population has access to waste management services, and it is mainly the town of Jane Furse that has access to waste management services with one licenced land fill site in the area. The rest of the municipality's communities dispose refuse and waste in unsecured areas thereby endangering the environment and the lives of flora and fauna in the area, including people. The municipality should develop and implement an Integrated Waste Management Plan to ensure compliance with the National Environmental Management: Waste Act 59 of 2008 (NEMWA).

4.8.3 Electricity

The provision of electricity is the responsibility of ESKOM in the municipality which is the licence holder for such function and services. From the literature revisited, site visits and information from Stats SA, the provision of this service has reached a large percentage of households, with over 93,2 % of households provided with the service as at 2016. As this is a moving target, small pockets of households remain unconnected as a result of them

being new extensions which may need post connection services from ESKOM.

The availability of this service to a large number of households and non-residential users is an enabler for economic development in the area and should be sustained as such.

There are no known alternative sources of energy in the form of renewable energy which should remove the municipality's dependence on grid energy supply. Alternative energy sources should be explored for future demand management and sustainability while also protecting the environment.

4.8.4 Synthesis

The provision of reliable engineering infrastructure and services is a non-negotiable constitutional mandate that the local sphere of government should fulfill without fail in line with section 154 of the Constitution.

The current provision of water, sanitation and waste management services does not auger well with the vision of this SDF as all ambitious plans and targets set in this SDF will require a reliable infrastructure.

The economic development of the Municipality as fast-tracked by rapid urbanization in nodes such as Schoonoord, Moratiwa, Phokoane, Apel Cross and Jane Furse will be triggered by enabling engineering infrastructure.

It is for this reason that the Makhuduthamaga Municipality, working together with development partners, has to ensure that credible infrastructure master plans are in place and implemented.

However, fragmentation of settlements affects the effective and efficient provisioning of engineering services to reach most communities. This spatial structure and pattern of fragmentation and sprawl will need a decisive action from all role players led by the Municipality.

It is important for both the Sekhukhune District Municipality and Makhuduthamaga Municipality to prioritize maintenance of infrastructure to ensure its sustainability.

4.9 Local Economic Development

4.9.1 Economic Growth

4.9.2 Key Drivers of the Makhuduthamaga Economy

Makhuduthamaga Municipality does not have a strong economic base in the sense that its economy does not mirror that of the country and the Limpopo Province where mining, commercial agriculture and tourism provide some of the key drivers of the economy. The municipality's agricultural practice is highly subsistence and the mining sector is not developed.

Evidence on the ground and information from literature revisited

reflect that the following are drivers for the Municipality's economy

- Retail and SMME Development;
- Tourism (still in its infancy).

The next sub-section provides a detail report on the status quo of sectoral activities:

4.9.2.1 Mining

Makhuduthamaga Municipality does not have an active mining

operation within its area of jurisdiction as Figure 8 below indicates. However, the same figure indicates that 11, 5% of mu-nicipal land has the potential for mining development as either prospecting or mining licences have been issued out by the Department of Mineral Resources and Energy. This will entail that the municipality should proactively plan for availing land for development to supplement the new mining area. Furthermore, the municipality, together with the District Municipality, should proactively plan for infrastructure support in the form of augmented infrastructure engineering services to such area.

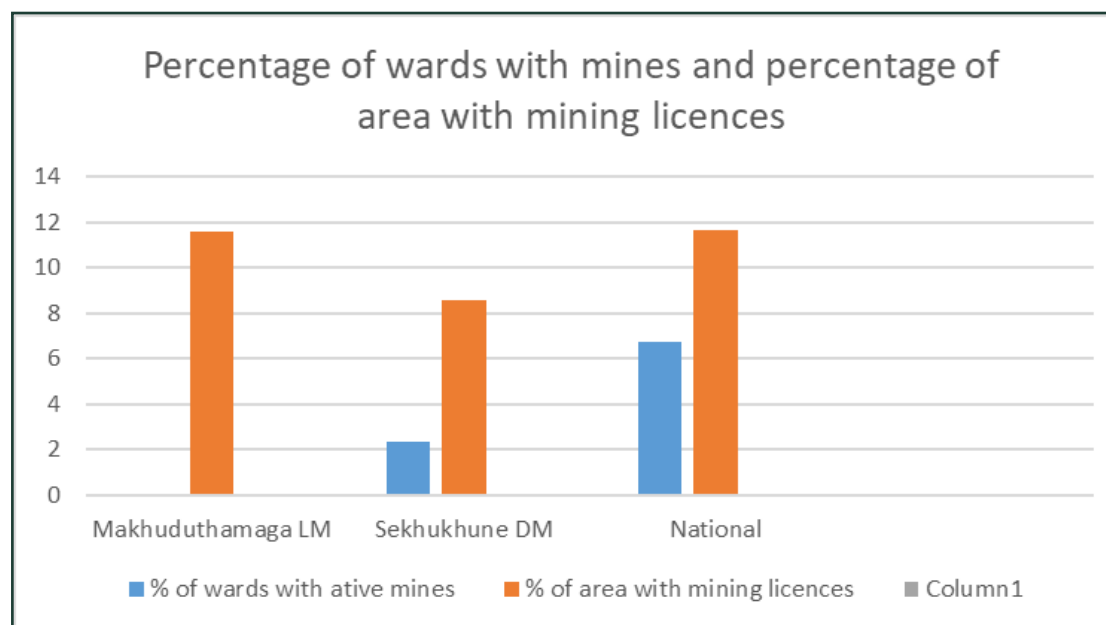


Figure 9: Active mines and mining licences (Source: Municipal Demarcation Board, 2018 Capacity Assessments)

4.9.3 Retail and SMME Development

Concentration of retail development in the municipality is also not proportional to population numbers as well as the strategic location of settlements. While there is the presence of small businesses in every locality providing convenient goods and supplies to such local settlements, medium to major impact retail development follows identified nodal points and population concentration points in need of high volume customer base. The primary node of Jane Furse enjoys a larger share of medium to high impact retail development anchored by the presence of national retailers.

a) Jane Furse Retail and SMME Development Sector

Jane Furse is one of the fastest growing small towns in the Limpopo Province. The town is also a district growth point according to the Sekhukhune District Municipality IDP and SDF. This growth point hosts a range of retail and SMME development facilities with at least two modern retail outlets located along the R579 road.

The two modern retail outlets are Jane Furse Crossing (a development by Moolman Group and a local entrepreneur Harry Phala which was opened in 2013 and Moolman Group estimates that some 313 permanent direct jobs were created in Jane Furse Crossing by the various retailers, and that at least a further ten jobs were created in the management of the centre itself. Such jobs include security, cleaning, centre management and similar (source, interviews with management of Jane Furse crossing). Another modern retail outlet is the Jane Furse Plaza by McCormick

Property Development which also hosts national brands such as Shoprite as the anchor tenant and full banking services.

The node has seen the upgrade of old shops into modern better retail mini sized outlets. Linked to the development of retail facilities, is the mushrooming of the informal trade which has also created better livelihoods for most of the participants in the sector.

The Municipality has also provided better trading facilities for the informal traders, however, the numbers of traders is on the forever increasing trajectory resulting in the encroachment of such facilities in the road reserves.

This creates a safety hazard for motorist and pedestrians alike. Another challenge associated with the proliferation of uncoordinated informal traders is its tampering with the aesthetic nature of the town, something authorities, working together with role players in the sector, will have to address decisively.

Jane Furse retail and SMME development is enabled by the strategic location of the town and a number of socio-economic services offered in the area. The town is home to a modern state of the art hospital (New Jane Furse Hospital), the head office of the Makhuduthamaga Municipality, offices of other government departments such as Agriculture, Rural Development and Land Reform, Home Affairs and the like. Furthermore, surrounding villages such as Moretsele, Madibong, Moretsele, Glen Cowie provide a good market for the retail services in the node.

Furthermore, the planned relocation of the Sekhukhune district municipality offices to Jane Furse will accelerate massive retail and SMME development in the growth point and this will necessitate proactive planning to avoid planning stamped in the area where haphazard de-velopment takes place of not attended to in time.

b) Moratiwa Retail and SMME Development Sector

Moratiwa is located on the southern tip of the Makhuduthamaga Municipality en route to Stofberg and Elias Motsoaledi Local Municipality on the busy intersection of R579 and R574.



Picture set 6: Modern retail outlets at Moratiwa on the R579 route

This node offers a modern retail establishment anchored by national brands such as Spar, Cashbuild and national banking services. The retail centre also boasts the presence of a modern taxi rank facility. There is also the presence of the informal economy in the area where informal traders have lined up their stalls along the R579 route in front of the new modern retail outlet, Moratiwa shopping complex. The presence of the informal traders along the R579 route also creates safety challenges in the sense that most of them have built their makeshift structures on the road reserve.

Prospects for expanding on the retail and SMME development for the area can be supported by the availability of vacant land in the area as reflected by picture set 7 below.



Picture set 7: Available vacant land for development opposite Moratiwa retail node junction provides an opportunity for expansion of the node through mixed use development

c) Phokoane Retail and SMME Development Sector

Phokoane offers a huge concentration of business opportunities and outlets that are spread in a linear format on the D4050 route towards the intersection with the R579 on the south-eastern part of the municipality. The huge pull factor is the connection corridor in Phokoane which serves as a funnel of movement that channels commuters and pedestrians from all walks of life to either Jane Furse or surroundings to other areas such as Moratiwa and Stofberg on the southern tip of the municipality. Another pull factor for the Phokoane node is the existence of social services such as SAPS, clinic, agriculture extension services, library and circuit offices of the Department of Education. The bulk of retail services contain grocery stores, hardware stores and some clothing outlets.

However, the concentration of retail activities in the area takes place in an unmanaged and uncoordinated manner. There is no proper land use management for the development in the corridor and there is a serious encroachment on the road reserve which may also lead to serious road safety challenges.

d) Magnets Heights Retail and SMME Development Sector

The strategic location of Magnets Heights on the junction en route to Schoonoord and Steel-poort via the D2219 road provides a good opportunity and accessibility for the location of retail and SMMEs in the area. There is a modern and mini retail outlet with supporting businesses such as hardware stores in the vicinity of the

area. Some pockets of retail development stretch from the existing Magnets Height shopping outlets in the direction of Jane Furse via settlements such as Moretsele. Business development in the area has provided the much needed employment opportunities, while also providing goods and services within short distances to surrounding communities.

e) Schoonoord Retail and SMME Development Sector

The local service point of Schoonoord enjoys a fair share of retail and SMME development that results from the influx of people to the area in search of government services such as police services, circuit offices of the Department of Education, courts and judicial services at the Sekhukhune Magistrate Offices, Agricultural extension services, the municipal Driver and Learners Testing Centre as well as postal services. Based on the distance between Schoonoord and Magnet Heights, one can conclude that the two are mutually beneficial to each other.

f) R579 corridor retail and SMME development

Over and above the concentration of retail and SMME activities in the five areas identified above, there is also the proliferation of businesses and SMME footprint along the R579 spine from Apel Cross up to Moratiwa on the edge of the municipal boundary to Elias Motsoaledi Local Municipality.

The concentration is also bolstered by modern filling stations with

associated convenient and mini retail stores, especially between Jane Furse and Moratiwa nodes.

4.9.4 Agricultural Development

a) Crop/Vegetable Farming

Makhuduthamaga Municipality is an area with limited commercial agricultural development compared to the rest of other municipalities in the Sekhukhune District Municipality. Except for the Apel Cross commercial agricultural node en route to Lepelle Nkumpi, the rest of the municipality practices subsistence farming on land generally allocated by traditional authorities. Most of the crops cultivated are maize, millet, sorghum and hey. Subsistence crop and goat farming are also practiced reinforcing the fact that the municipality also forms part of the Limpopo beef cluster.

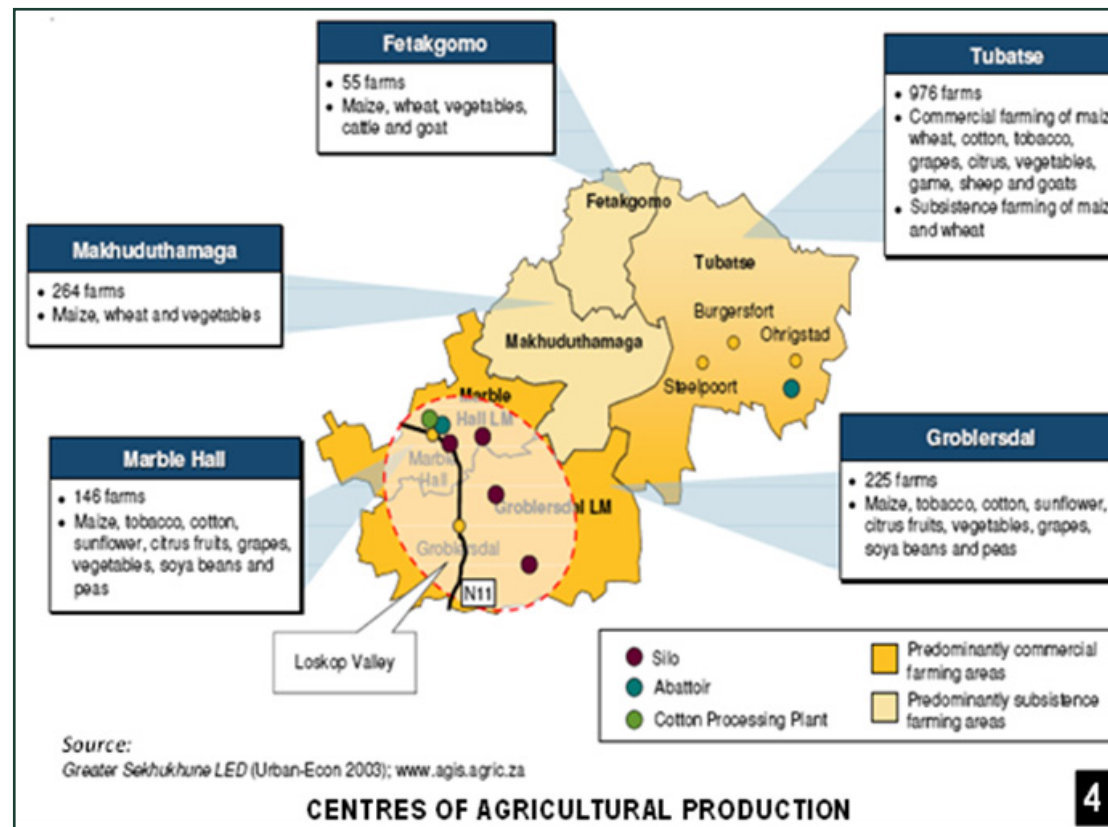
This area experiences rainfall during the warmer months of October to March and the mean annual rainfall is 536 mm. The fields

have an average elevation of 1333 m above mean sea level. The temperatures can drop to 7 °C in winter but can be as high as 35 °C in summer according to the records from the automatic weather stations of the Agricultural Research Council.

The reason no serious commercial crop and vegetable farming is practised in the municipality is due to uncertainty on the ownership and security of tenure on land as investors may not want to invest millions on infrastructure on land that is not adequately secured.

Another challenge is the erratic rainfall patterns as reflected above.

Map 20 below reflects the predominance of subsistence farming in the municipality as compared to commercial farming in neighbouring municipalities within the Sekhukhune District Municipality.



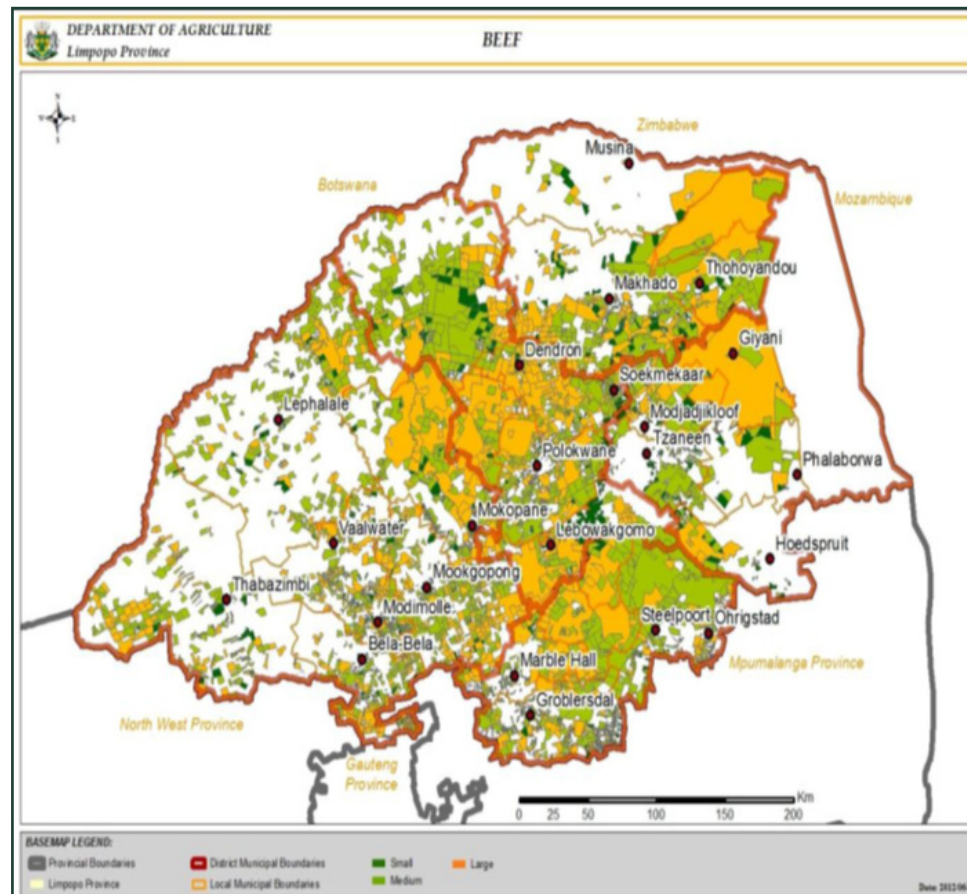
Map 20: Centres of agricultural production in Sekhukhune District Municipality with Makhuduth-amaga Municipality featuring only in subsistence farming (source: Urban Econ, 2003)

b) Livestock and Game Farming

Makhuduthamaga Municipality has comparative and competitive advantages about the production of red meat in the form of beef and goat's production.

There is no significant game farming in the area.

Map 31 below confirms that Makhuduthamaga Municipality is one of the major producers of red meat with a rating of medium to large production in the sector in the Limpopo Province.



Map 21: Location of Beef production in the Limpopo Province with Makhuduthamaga Municipality occupying medium to large rating in the sector (source: Limpopo Department of Agriculture)

Some challenges encountered in the sector relate to poor skills, group approaches to the sector which resulted in cooperatives running down established operations.

Tourism Development

Makhuduthamaga Municipality has a rich heritage and cultural history which, if adequately marketed, can go a long way in unlocking the local economic potential of the area and create much needed jobs and sustainable livelihoods.

Manche Masemola Gravesite

The site is located at Phaahla village and it is a place of significance which attracts lots of Christian tourists especially of the Anglican religion as the person whose name the site is named after is a Christian martyr who died for her belief against those of society and her family.

Kgoshi Mampuru II Heritage Site

The site is at Mamone and is named after Kgoshi Mampuru II who fought gallantly against Apartheid oppressive laws and was executed at Pretoria prison that was later renamed Kgoshi Mampuru II prison. This is a place of significance that, if adequately branded and marketed nationally and internationally, can bring influx of tourists in the area and result in massive economic boom for the municipality.

Tisane Cultural village

The cultural village is located at Tisane and can be accessed via the R579 route. It preserves the cultural history of the Pedi people

and if adequately branded and marketed it can trigger the local economy through the influx of tourists to the site.

The significance and impact of cultural heritage sites and the beautiful scenery and landscape of the municipality should not be seen in isolation from the rest of related facilities in the Sekhukhune District Municipality.

It is advisable that through the LED division of the Sekhukhune District Municipality, there should be proper packaging of all tourist attraction points so that District Municipality, in general, and Makhuduthamaga Municipality, in particular, can be destinations of choice for many tourists from all walks of life.

Manufacturing

According to the Makhuduthamaga Municipality IDP, very little manufacturing activities take place in the study area.

This is supported by evidence on the ground. Where manufacturing takes place, it is in the form of backyard and rudimentary manufacturing practices such as brick making, fence making, and related building and construction materials manufacturing as reflected in picture set 8 below. Such manufacturing practices, if given the necessary support, can go a long way in contributing to job creation for local residents thereby contributing to the economic development of the MLM.



Picture set 8: *Small scale manufacturing in MLM*

However, opportunities for manufacturing exist for the other economic pillars listed supra. Lack of agro-processing facilities in the agricultural sector creates a business opportunity for the establishment of such facilities, same goes for manufacturing of input resources for the existing and potential mines in the neighbouring municipality of Fetakgomo-Tubatse. Examples of manufactured inputs for the mines may include protective clothing, stationary, ventilation pipes etc. A detailed study on the manufacturing sector strategy may be needed in future.

Furthermore, manufacturing opportunities will be created by the designation of Makhuduth-amaga town of Jane Furse as the administrative hub of the Sekhukhune District Municipality.

4.9.5 Synthesis

The economic profiling of the Makhuduthamaga Municipality reflects a municipality with a single strong economic anchor of retail and SMME development while there are weaknesses in demonstrating and activating other sectors of the economy in the form of agriculture, tourism development, mining and manufacturing.

While this revised SDF is not a detailed economic study, it is important that the municipality commission the development of an economic growth and development strategy as part of the LED strategy review to unearth the full economic potential of the area.

There is a link between land ownership, management and economic growth and development. Land ownership and tenure certainty are prerequisite for a strong agricultural sector. Unless land ownership and competing land claims are resolved, the economy will suffer as potential investors in the agricultural sector needs legal certainty.

5 PROPOSED SPATIAL DEVELOPMENT CONCEPT AND DEVELOPMENT STRATEGIES

The spatial development concept proposed in this chapter, as well as development principles that guide the Makhuduthamaga Municipal Spatial Development Framework, should resonate with and give effect to the MLM SDF Vision which is repeated here to reiterate its flow with the contents of this chapter.

5.1 Development Vision

The following vision for the Makhuduthamaga Municipality was formulated and is in line with the vision of the Municipality which reads as follows:

“Makhuduthamaga, a place that promotes integrated growth for sustainable service delivery for all”

This vision covers the following elements, which also bear consistency with the IDP vision:

- sustainable development and service delivery (development and service delivery must be undertaken in cognisance of all the elements of sustainability),
- integrated growth (spatial development must be undertaken with a view to stimulate growth and development), and
- transformation of the current fragmented spatial arrangements (requires a radical shift from the planning interventions which maintains the status quo).

It is important to note that the above vision will be a long-term goal of the Municipality to which the implementation of the SDF must work towards realizing through a set of objections, actions and programmes.

In addition to working towards the achievement of the above vision, the Makhuduthamaga Spatial Development Framework will also work towards achieving the following overall objective:

- to prepare a Spatial Development Framework for the Makhuduthamaga Local Municipality in line with SPLUMA requirements and “Department of Rural Development and Reform: Guidelines for Development of Spatial Development Frameworks”.

Specifically the Makhuduthamaga SDF seeks to achieve the objectives as per the Guidelines for Preparation of Spatial Development Frameworks of a municipality which should at least achieve the objectives as summarised hereunder:

- to give effect to the development principles and applicable norms and standards set out in as contained in Chapter 2 of the Spatial Planning and Land Use Management Act, SPLUMA (Act 13 of 2013);
- identify current and future significant structuring and restructuring elements of the spatial form of the municipality, including development corridors, activity spines and economic nodes where public and private investment will be prioritised and facilitated;
- include population growth estimates for the next five years;
- include estimates of the demand for housing units across different socio-economic categories and the planned location and density of future housing developments;
- include estimates of economic activity and employment trends and locations in the municipal area for the next five years;
- identify, quantify and provide location requirements of engineering infrastructure and services provision

for existing and future development needs for the next five years;

- identify the designated areas where a national or provincial inclusionary housing policy may be applicable;
- include a strategic assessment of the environmental pressures and opportunities within the municipal area, including the spatial location of environmental sensitivities, high potential agricultural land and coastal access strips, where applicable;
- identify the designation of areas in the municipality where incremental upgrading approaches to development and regulation will be applicable;
- identify the designation of areas in which:-
 - o more detailed local plans must be developed; and
 - o shortened land use Development Procedures may be applicable and land use schemes may be so amended;
- provide the spatial expression of the coordination, alignment and integration of Sectoral Policies of all municipal departments;
- Determine a Capital Expenditure Framework for the Municipality's development programmes, depicted spatially,

The realization of the above vision and the challenges call for pro-active planning based on a long term Vision for the future city which is based on a number of development principles which will guide the future sustainable development of the broader Makhuduthamaga Local Municipality area. These principles are briefly listed hereunder and will be discussed in detail in the ensuing section

5.2 Makhuduthamaga SDF Approaches & Components as Per SPLUMA Guidelines

The development of this SDF for the Makhuduthamaga Municipality is approached with the aim in mind of improving planning innovations and initiatives while at the same time utmost care is practised to ensure sustainable development. SPLUMA guidelines direct that when drafting the SDF three key approaches should be applied to the current spatial analysis whereby the SDF should PROTECT (maintain the status quo on certain features of the spatial reality), CHANGE (what is not desirable, unsustainable and inefficient), while introducing NEW aspects that will produce a desired SDF that enables the municipality to attain the spatial principles and strategies required for a compliant SDF.

Table 12 below proposes the following broad approaches to the review of Makhuduthamaga SDF.

Protect	Critical and Biodiversity Areas including green infrastructure and agricultural areas. This includes wetlands such as the one in Jane Furse node, mountains and koppies such as Leolo Mountains, water bodies such as rivers like the per-ennial Ngwaritsi River and culturally sensitive areas.
Maintain (our own emphasis)	<ul style="list-style-type: none"> • Maintain Jane Furse as a primary growth point • Maintain Schoonoord, Phokoane and Glen Couwie as secondary nodal points
Change	<ul style="list-style-type: none"> • Hierarchy of settlements in as far as growth points and nodes are concerned, especially the addition of Nebo as an area of strategic importance • Current pattern of mono-functional land use, dispersed settlements and sprawl
New	<ul style="list-style-type: none"> • Moratiwa as a node • Local Service point at Nebo • Identification of D2219 road from Jane Furse to Steelpoort via Mo-retsele and Magnets Heights as a activity spine second to the R579 route • Put in place effective land use management processes in place. These should be inclusive of key stakeholders such as traditional au-thoritties • Priority of connectivity routes to link nodes and strategic develop-ment areas • Urban edges for all nodes • Mixed land use development characterized by intensification and densification of settlements in identified nodes • Integration of dispersed settlements • Alternative energy innovation/Green energy • ICT connectivity and innovation • Ensure increased basic service and social amenity provision in re-mote villages

Table 12: Broad approach to the review of the MLM SDF

5.3 Development Principles

Based on the Status Quo Analysis outlined above, including the development opportunities and issues it is proposed that the Makhuduthamaga SDF should primarily aim to restructure the unsustainable settlement structure.

This MSDF maintain the the 2015 SDF settlements classification as follows:

Settlement Type	Settlements	Description	Development Guidelines
First order settlements	Ga-Marishane, Ga-Masemola, Ga-Moloi Ga-Phahla, Garantobeng Glen Cowie, Jane Furse Kopjeng, Malaita, Maletse Maserumo, Matlakatle Mohlarekoma, Mohwelere Mokwete, Nebo, Ngwaritsi Phatametsane, Phokwane Sekwati, Takataka,	This is the cluster of settlements located around the main node of Jane Furse and other secondary nodes. These are some of the most accessible areas in the MLM due to close location to the R 579 and districts routes, and has the largest concentration of services and facilities. These areas are also some of the main population concentrations.	<p>Growth: The settlements in proximity to the nodal areas will come under increased pressure for development with growth direction probably along the D 2219, D 4828 and D 4190. These areas need to be formalised to ensure sustainable growth. Intensification, infill and densification should occur within the Jane Furse nodal boundary. The growth abutting the R 579 ought to be managed in terms of the planning for the R579 corridor and the Moratiwa, Apel Cross and Glen Cowie nodes.</p> <p>Accessibility: Provide public transport facilities along the D 2219, D 4828 and D 4190 routes. This include pedestrian amenities at stops e.g. shade or shelters, lighting, sidewalks etc.</p>

Settlement Type	Settlements	Description	Development Guidelines
			<p>Economic activities: The main economic activities needs to be focused in the Jane Furse node with settlements' services e.g. convenience stores, hair dressers etc. to be provided in the settlements surrounding the node. Economic activities should preferably be clustered as per the strategic local development framework.</p> <p>Social and community facilities: High level regional type facilities to be provided in the first order settlements with community and mobile service provided in the surrounding settlements preferably at or close to transport facilities.</p>
Second Order Settlements	Ga-Masegwane, Ga-Mogashoa, Manga-neng Sekhukhune, Tsatane	These areas are clustered around the D2219, D 4226 and D 4241 routes. It is served by the Magneet hoogte and Schoonoord services nodes.	<p>Growth: The economic base are very narrow and the sprawl of settlements need to be prohibited in order to support infill and densification as means of creating economies of scale for the two service nodes. The escarpment areas to the east should be protected against further intrusion of residential development.</p>

Settlement Type	Settlements	Description	Development Guidelines
			<p>Accessibility: Provide public transport facilities in the nodes and along the D 2219, D 4226 and D 4241 routes. This include pedestrian amenities at stops e.g. shade or shelters, lighting, sidewalks etc. Local collector streets need to be tarred.</p> <p>Economic activities: The main economic activities need to be focused in the two nodes and including settlements' services e.g. convenience stores, hair dressers etc. There are government services that can support the development of administrative type businesses.</p> <p>Social and community facilities: Existing facilities ought to be maintained. Existing school sites can also be used to cluster community facilities. This clustering will also assist with the accommodation of markets or sales points (e.g. pension day markets) at accessible points.</p>

Settlement Type	Settlements	Description	Development Guidelines
Third Order Settlements	These are all other areas that fall outside of the proximity of the primary and sec-ondary nodes.	Relatively more isolated / inaccessible in local context than other settlement types. No strong local nodes at present. These settlements are scattered with fragmented configurations that do not support viable service provision.	<p>Growth: Growth of these settlements will be limited with no economic activity to drive in migration. The economic base are very narrow and the sprawl of settlements need to be prohibited in order to create limited economy of scale of small scale and convenience type of businesses. Accessibility: Provide public transport facilities in the nodes and along the D 4310, D 4150, D 4100 and D 4480 routes. This include pedestrian ameni-ties at stops e.g. shade or shelters. Local collector streets need to be tarred.</p> <p>Economic activities: The main economic activities need to be focused at intersec-tions with the D 4310, D 4150, D 4100 and D 4480 routes e.g. conven-ience stores, hair dressers etc.</p> <p>Social and community facilities: Existing facilities ought to be maintained. Existing school sites can also be used to cluster community facilities. This clustering will also assist with theaccommodation of mar-kets or sales points (e.g. pension day markets) at accessible points.</p>

The spatial restructuring must culminate in sustainable human settlements which also meet social, physical and economic needs of municipal communities in an effective and efficient manner to achieve the long-term vision of the Municipality. Map 33 shows the broader spatial proposals for the Makhuduthamaga Municipality which focus on the following:

- The proposed road network that will help unlock development and connect communities and serve as the main public transport route;
- The natural environmental landscape showing sensitive areas, nature reserves, tourism areas and natural vegetation areas. Broadly speaking, the SDF discourages any development in these areas depending on their environmental sensitivity.
- Areas used for agriculture such as crop, goat and cattle farming;
- Potential tourism routes linking existing and potential tourism attraction facilities'
- A hierarchy of nodal areas comprising District Growth Point, Municipal nodes, and Local Service Points. These are areas with varying levels of development potential which can be optimised through some external intervention such as provision of infrastructure, channeling

of investment and funding in these areas.

- Thusong Service Centres are important centres through which a variety of services can be dispensed off to community facilities and hence nodal areas are ideal areas for their location.
- Strategic Development Areas mainly for housing development.

In order to address the challenges faced by the Municipality, the following Strategies will have to be used:

Strategy 1: Address institutional arrangements for land management with all key stakeholders and role players in the MLM to achieve a common vision with regard to spatial planning and land use management for the entire area. (Strategy no 1 is a condition sine qua non for the successful realization of subsequent strategies)

Strategy 2: Implement a formalized land and growth management process (retained from the MSDF 2015)

Strategy 3: improvement of access by functionally linking all nodes and settlements to one another by ensuring that the main road network linking those settlements is tarred and up-graded.

Strategy 4: Ensure equitable access to community services by

establishing mixed use government precincts in nodes and local service centres in rural areas outside nodes.

Strategy 5: Support the commercialization of small scale and/or subsistence farming activities throughout the municipality.

Strategy 6: Consolidate a variety of business activities, formal and informal, within identified activity nodes and corridors to optimise their development potential;

Strategy 7: Direct critical engineering infrastructure investment towards the Nodal Points and local service points as a stimulus for economic activity and resultant human settlement development.

Strategy 8: Provide minimum services such as water, sanitation waste management and electricity to all communities outside nodes and local service points in line with the National Development Plan and Comprehensive Rural Community Development Plan.

Strategy 9: improve Information Communication Technology rollout for the entire MLM, starting with nodes and local service points as launching pads.

The Development Framework covers the following areas:

- The natural environmental landscape comprising areas not suitable for human habitation, sensitive areas, nature reserves, tourism areas and natural vegetation areas. Broadly speaking, the SDF discourages any development in these areas depending on their environmental sensitivity.
- A hierarchy of nodal areas comprising District Growth Point, Municipal Growth Point, Population Concentration Point and Local Service Points. These are areas with varying levels of development potential which can be optimised through some external intervention such as provision of infrastructure, channelling of investment and funding in these areas.
- Land intensification (densification and infilling) in nodal areas to limit settlement sprawl of the built environment onto environmental sensitive areas and agricultural to ensure sustainable development through residential expansion.
- Creation of strategic road network to unlock economic development, increase accessibility and mobility between major destinations which need to be surfaced.
- Tourism development through provision of critical infrastructure such as prioritising upgrading of critical roads and infrastructure.
- Stimulation and focussing of development in identified nodal areas.

- Embracing and implementing Information and Communication Technology innovation to increase the development and competitiveness of the MLM.
- Sustainable Service delivery innovation through the use of green energy initiatives and the reduction of the carbon footprint.
- A clearly defined corridor development plan along major movement spines.

4.5 Proposed Spatial Development Interventions and strategies

In line with the above principles, the detailed development interventions to bring about sustainable development in the Makhuduthamaga Municipality are proposed below:

Strategy 1: Address institutional arrangements for land management with all key stakeholders and role players in the MLM to achieve a common vision with regard to spatial planning and land use management for the entire area

The status quo report of this MSDF has identified serious challenges relating to ownership, land tenure, competing land claims and uncoordinated administration of land and land development patterns in the MLM. This is as a result of the MLM not being the registered owners of any strategically located land across the Municipality. Previous and current strategic

documents such as the IDP, LED Strategy, MSDF 2015, precinct plans, Land Audit have all identified this problem and provided recommendations to resolve it. To date the challenge of alignment in terms of spatial planning and land use management amongst role players in the space in the form of traditional authorities, MLM, the Limpopo Provincial government led by Office of the Premier and COGHSTA, Rural Development and Land Reform has not been attained. It is against this background that, after twenty years in the democratic dispensation, the apartheid spatial planning patterns still prevail in the MLM.

Continued fragmentation and dispersal of settlements, settlement sprawl and resultant costly provision of engineering services, rampant allocation of land even on environmentally sensitive areas and road reserves are still the order of the day. While legislations in the form of SPLUMA and the MLM SPLUMA By-Law and Policy have been promulgated and gazetted, very little effort is being done to give effect to the provisions of such noble legislations and this relegates the MLM which is the custodian of the implementation of these policy and legislative instruments as passive by-standers.

This reviewed MSDF proposes the following:

- The MLM, through the office of the Mayor, convene a consultative process with all traditional authorities to seek common grounds on spatial planning and land use management for the entire municipality.
- In that consultative forum all fears and challenges should be

identified and joint solutions be proposed within the confines of all applicable legislations.

- MLM to fund independent legal practitioners to provide specialized legal services to traditional leaders so that their perceived fears are allayed.
- MLM and traditional authorities to jointly rope in CONTRALESA, OTP, COGHSTA and DRDLR for drafting of MOU and MOA for planning and implementation of all land administration policies, programmes and interventions
- MOU and MOA to strive for uniformity and certainty.
- Continuous capacity building of all role players
- Regular monitoring and Quarterly review of the implementation of the MOU/MOA
- MLM should strive to include traditional authorities in Municipal Planning Tribunals to consider land development. This should be achieved through the permissible legislative framework as guided by SPLUMA and its Regulations.

This strategy is the *conditio sine qua non* for the successful implementation of other strategies in this MSDF and without it, the project team does not see any meaningful success and visible turn around in the realisation of this MSDF.

Strategy 2: Implement a formalized land and growth management process (retained from the MSDF 2015)

The purpose of this strategy is to attain three objectives, viz, Protect the natural environmental, conservation resources, agricultural land and historical sites from human development interventions.

Identification of strategic development areas to prioritize for development and create sufficient impact in terms of economic gains and massive infrastructure investments.

Provide for restructuring of the current spatial pattern from fragmentation and sprawl.

- Protection the natural environmental, conservation resources, agricultural land and historical sites from human development interventions

This entails the restriction of developments and any human footprint impact on natural environments such as water bodies in the form of the Olifants/ Ngwaritsi rivers, degraded areas and areas of agricultural potential such as the agricultural precinct at Apel Cross. Any form of development as per the CBA map and Apel Cross precinct should be restricted to promote environmental sustainability and food security.

Current trends of developments encroaching on slopes along the R579 road between Jane Furse and Moratiwa should be restricted as they endanger the lives of the inhabitants while also contributing to the degrading of such slopes and valleys.

Other areas near the built up areas where development must be restricted include the mountainous area on the eastern side of Schoonoord node.

- Identification of strategic development areas to prioritize for development and create sufficient impact in terms of economic gains and massive infrastructure investments. This MSDF retains strategic development areas from the MSDF 2015 while also adding a new node and a rural local service point as reflected below:

Classification	Function
Jane Furse primary node (also a district growth point)	<ul style="list-style-type: none"> • Provides a mix of activities • The main centre of business and services for the immediate district • Promote pedestrian friendly environment • Accommodate public transport facilities and adequate parking
Apel Cross and Glen Cowie secondary nodes	<ul style="list-style-type: none"> • Centre of business and services for the immediate district • Promote pedestrian friendly environment • Accommodate public transport facilities and adequate parking • Address illegal access points and put in place an appropriate road network • Location for community related services

Classification	Function
Local service nodes: Vierfontein/Takataka	<ul style="list-style-type: none"> • Centre of local business and services for the immediate community • Accommodate public transport facilities and adequate parking • Address illegal access points and put in place an appropriate road network • Location for temporary or mobile community related services if permanent services are not available
Apel Cross agri-node	<ul style="list-style-type: none"> • The focus is on agriculture production and processing • Existing agri-node has to be strengthened and infrastructure revitalised • Provide good transport facilities and promote regional transport services
R579 Development Corridor	<ul style="list-style-type: none"> • Primary movement corridor • Linkages to key strategic areas & nodes • Major corridor for intermodal public transport movement

Detailed development proposals for each of the identified strategic development areas above are provided for in the subsequent chapter.

Strategy 3: improvement of access by functionally linking all nodes and settlements to one another by ensuring that the main road network linking those settlements is tarred and up-graded.

Map... proposed strategic road network for the Makhuduthamaga Municipality in terms of the SDM Roads Master Plan. The following road network is proposed:

- Tarring and upgrading in terms of size of the following roads:
 - o R579 road
- This is the most important activity spine in MLM. Activity spines are more focused on promoting intense concentration of mixed uses along a major transportation route. Upgrading of this road should cover the creation of a dual carriage way to deal with the challenge of traffic congestion and allows for the free flow of traffic. Where necessary, the relocation of households that are in close to the road reserve be prioritized. The expropriation route may also be ex-

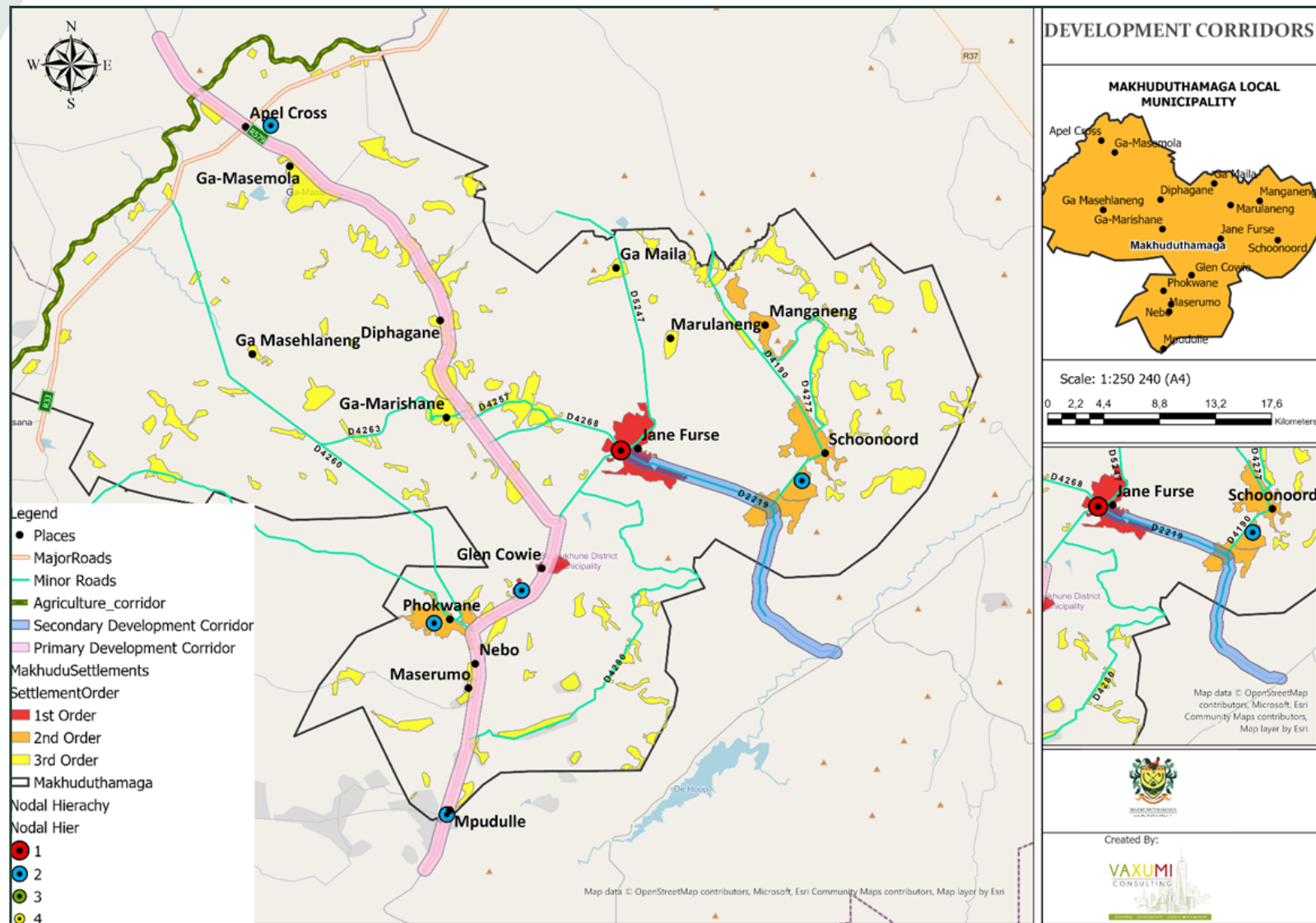
plored where necessary.

The first phase of upgrading the R579 road is from Jane Furse to Moratiwa. The second phase should be from Jane Furse to Magnets Heights, while the third phase should be from Jane Furse to Apel Cross via Marishane.

- o Explore feasibility of introducing a MLM bus rapid transport from Jane Furse to Moratiwa and from Jane Furse to Schoonoord via Magnets Height on the R579 road. This will improve public transport mobility and promote economic development on the activity spine of R579

In order to unlock economic development and improve tourism, this strategic road network must be given priority in terms of upgrading these roads to tar road. The following guidelines apply to road network in nodal points:

- Paving of internal streets;
- Paving of main pedestrian routes to define main pedestrian movement and connect activity nodes;
- Regular maintenance of all roads to enhance their life-span (pavement management system required).



Map 22: Activity spine on R579 and D2219 from Jane Furse to Schoonord via Magnets Height

Principle 2: To improve accessibility within settlements by tarring main transport networks in nodal development areas.

In order to improve accessibility within settlements main public transport routes need to be upgraded. Construction and surfacing of proposed routes in nodes will also serve as public transport road network. As with the proposed Strategic Road Network, the internal road network will improve traffic movement within these settlements and form an important public transport network.

The upgrading of connector routes amongst nodal points and other points of significant importance outside the municipal boundaries remains a priority infrastructure intervention required to unlock the economic potential of the municipality and improve mobility. However, there is still a dire need to tar main transport networks that connect settlements to nodes and also connect settlements with a high population concentration to maximize the impact of such infrastructure. This will enhance the economic and social viability of such nodes.

Strategy 4: To ensure equitable access to community services by establishing mixed use government precincts in nodes and local service centres in rural areas outside nodes.

This MSDF has, on numerous occasions, displayed spatial challenges for MLM as evidenced by a disadvantageous settlement structure characterized by fragmentation, dispersed pattern and poor connectivity in terms of roads infrastructure as well as IT connectivity thereby making it difficult for communities, mainly in

the far-flung rural areas to access social and commercial services. This pattern is also aggravated by the topography of the MLM that leads to settlement being separated by geographical elements such as mountains and koppies thereby disabling the clustering of communities and settlements in close proximity to each other.

Most of the community/ government services that the majority of communities required are sourced outside the norms and standards prescribed for minimum access. Examples include health facilities, SASSA offices, Home Affairs services and local government/municipal services.

This SDF, however, appreciates the proactive role that there is some elements of clustering of community and government services in nodes such as Schoonoord, Moratiwa, Jane Furse, Apel Cross and to some extent in Phokoane.

It is against this background that this MSDF proposes the establishment of government precincts in the form of one stop service centres where a large number of government, social and community development services can be accessed by a huge number of community members under one roof.

The mooted relocation of the District offices for Sekhukhune from Lebowakgomo to Jane Furse can be a starting Greenfield development for the achievement of this principle. In areas such as Moratiwa, Phokoane, Apel Cross and Schoonoord, planning should strive towards consolidation of existing services and facilities while new centres should multi-use buildings to ensure greater impact.

It is vital that the provision of government one-stop service centres be implemented fully in line with the Thusong Service Centre approach coordinated by the office of the Presidency through Government Communication Information System (GCIS). When this Thusong Service Centre programme was introduced in 1999 the plan was to ensure that an area is identified where an integrated service delivery mechanism will be employed by various service

delivery agencies through a one stop service centre also called Multi-Purpose Community Centres (MPCCs). The aim of such centres is to service rural communities who have to travel long distances to access social and public services that were often located far from one another. The MPCC model places a number of service agency close to each other, preferably under one roof for ease of access by rural communities.



Picture 9: Makhuduthamaga Municipality's approach to new and upgraded one stop service centres should emulate the modern MPCC in Kwazulu Natal, (Thembalethu). Source (GCIS).

What this MSDF proposes is that all the existing centres in nodal points should be utilized optimally by roping in other government players and other social agents of change to provide their services in such centres. Furthermore, new MPCCs should be made available in the identified population concentration points as a start. For the five year period of this SDF while in the out-er years extra centres are built to new areas that are outside the 5 kilometre radius of existing centres.

The notion of Thusong Service Centre complies with the vision of the National Integrated Sustainable Rural Development Strategy (ISRDS) and Comprehensive Rural Development Programme (CRDP) both of which support nodal development as a strategy for restructuring rural economies.

A Thusong Service is a one-stop service centre providing information and services to communities. The Government Communication and Information System (GCIS) is the driving force behind the rolling-out of Thusong Service Centres as centres aimed at providing hub of activities and variety of services such as the following:

1. Government Social and Administrative Services
 - a. Grants
 - b. Personal documents
 - c. Housing Applications
2. Office Services

- a. Phone, fax, scan, copy. Print. Etc
 - b. Desktop publishing
 - c. Postal Services
3. Educational and Skills Development Services
 - a. Adult Basic Education and Training
 - b. Further Education and Training
 - c. Specialised training
4. Local Economic Development (LED) Services
 - a. Small Business Advise and Development Services
5. Business Services and Community Opportunities
 - a. Small, Medium and Micro Enterprises (SMME) Development Services
 - b. Other private-sector services such as retail and ATMs
6. Information and Communication Activities
 - a. Government information and on-site guidance regarding services
 - b. Community information and awareness.

The creation of rural service centres in the form of Thusong Centres in rural areas holds the following advantages:

- Provides a platform and opportunities for local economic development;
- Provides an integrated service delivery in line with

requirements of the Municipal System Act;

- Provides access to education and skills development, ABET and government pro-programmes;
- Provides access to information and services closer to where people live;
- Provides access to technology such as telecentres which provide access to Batho Pele Gateway and computer training;
- Platform for partnerships which empower communities through, for example, sustain-able projects that encourage ownership and self- employment, as well as employment of others;
- Creates a one-stop centre for a variety of services and facilities and hence reduces the costs of travelling;
- Reduces the levels of inequality in living standards and access to basic services between rural and urban areas;
- Basic services are provided by government in a financially sustainable manner;
- Provides government with a platform from which to develop tele-centres in rural areas, as well as rural energy centres;

- Provides a platform for entrepreneurship and small business development (LED);
- Provides guidance for the development and provision of engineering services;
- Indicates where to provide tarred road infrastructure and multi-modal transport facilities; and
- Helps to determine public transport service points and routes.

The local service centres should serve the basic needs of the surrounding local rural communities whereas the two nodal points of Jane Furse and Apel Cross will provide higher order functions to the broader community. These higher order functions could include institutions like tertiary education and training facilities, regional hospitals, regional emergency centres, regional sport stadiums, etc; The expansion of the sports facilities at Apel Cross and Jane Furse 2010 legacy sports complex may go a long way in the realisation of this noble goal.

The development of Thusong Centres should be an incremental approach which develops over time through concerted effort and investment by various stakeholders. The first step in this process is to identify nodal points which can be ideal for the location of Thusong Centres which must first meet a certain criteria such as accessibility, access to basic services, number of

existing community facilities, development potential and relatively high population number. The current nodes of Makhuduthamaga Municipality fit clearly in the criteria referred to above in this way:

Jane Furse-it is accessible, has access to basic services (though limited in terms of sustainable sewer reticulation), has existing community facilities such as municipal head offices, government departments such as Rural Development and Land Reform offices, SAPS, Hospital, educational facilities and modern retail facilities.

Moratiwa-It is strategically located on the junction of the R579 and R574 roads, has a modern retail facility, community facilities such as circuit offices for the department of education, clinic, special school for the blind and deaf (Bosele) and a private college (Living Waters College)

Schoonoord-Magnet Heights node-This node is also strategically located on the R555 road from Jane Furse to Steelpoort. The node has community services such as police station, magistrates' offices, offices of the department of agriculture, circuit offices of the department of Education, modern sports complex (indoor). As a result, the node attracts a large number of people required for a dedicated government precinct.

Thusong Centre can also be established in an Agri-Village where the village can be provided with basic community facilities providing services to surrounding farming communities such as pension pay-points, home affairs, SMME development and support institutions,

post office, primary health care, etc. The development of an agricultural node at Apel Cross lends credibility to this assertion of integrating a Thusong Service Centre with an Agri-village. Phokoane and Glen Couwie which are located along the R579 routes have community services such as health centres, department of Agriculture offices, library, educational services, taxi ranks and viable retail outlets.

Strategy 5: To support the commercialization of small scale and/or subsistence farming activities throughout the municipality.

This SDF aims to use spatial tools to help attain the NDP goals of halving poverty, stimulating the local economy and the creation of an enabling environment for job creation. In the analysis phase of this SDF it was stated that the economy of the Makhuduthamaga Municipality is characterized by an underperforming subsistence small scale agriculture. The same is also conceded in the Makhuduthamaga Local Economic Development Strategy and the revised Integrated Development Plan 2016-2021.

Taking advantage of the land reform programmes and policies, the municipality working with the Department of Agriculture, organisations of farmers' unions across all races within and outside MLM, should facilitate mentorship programmes to integrate small scale and subsistence farmers into the mainstream commercial farming economy. This can work well if one integrates the activities of Makhuduthamaga farmers with those of their counterparts in Elias Motsoaledi, Ephraim Mogale and the rest of the Sekhukhune

District municipalities.

High potential agricultural land is a scarce resource, and it has inherent potential to provide job opportunities and food security for local communities. It is thus proposed that high potential agricultural land across the Municipality be utilised for small-scale crop farming activities where possible. The remaining land surrounding the study area could also be utilised for agri-cultural activities, though at a lower intensity and should be protected from urban development by limiting the expansion of settlement footprints, and their encroachment onto potential agricultural land. There is fallow land on the eastern part of the R579 between Glen Cowie and the Moratiwa junction that has been used for subsistence farming for a long time and that now lie fallow. This land parcel provides a better opportunity for small scale subsistence farming which can be upgraded to commercial farming and the resultant food security and job creation for locals.

The second leg of this strategic objective is to significantly boost local agricultural activity, -involvement and -produce – not only at a subsistence level, but also at an entry-level commercial farming level. This may be achieved by, amongst others, the following means:

- Educational workshops and programmes to educate rural communities in best-practices for small-scale crop farming and community farming
- Providing information regarding institutions where individuals might access loans and basic funding

- Providing basic infrastructure to accommodate fresh produce markets at strategic areas
- Encouraging beneficiation ventures (i.e. agro-processing)
- Promoting export initiatives
- Assisting with logistical issues such as land ownership and networking opportunities

The relevant implementing agents have to take into account that agricultural projects should be initiated in close liaison with tribal authorities, as a large percentage of land in MLM is communal land, in order to mitigate potential conflicts.

The Makhuduthamaga Municipality, in conjunction with The Limpopo Department of Agriculture and Agricultural Research Council (ARC), should conduct feasibility studies on the resuscitation of the silo and maize processing facility at Glen Cowie neighbouring the St Ritas Hospital.

The Municipality should further explore the possibility of addressing the land tenure challenges to attract investment in the agriculture sector. This SDF advocates for engagements with traditional authorities and the relevant government departments to pursue land tenure upgrading.

Strategy 6: Consolidate a variety of business activities, formal and informal, within identified activity nodes and corridors to optimise their development potential;

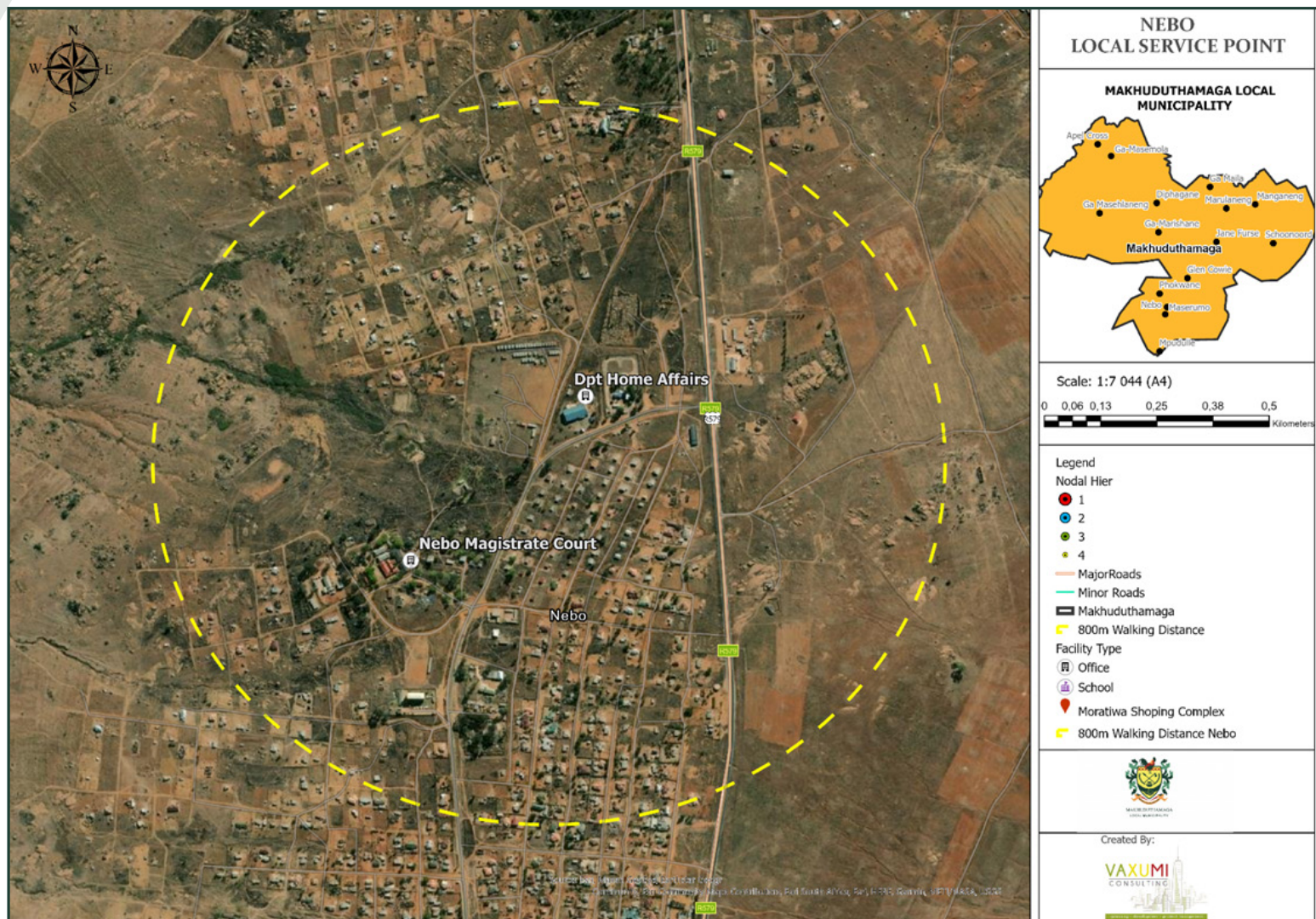
Due to the concentration of retail activities along the major

transport routes in Apel Cross (Masemola), Marishane, Jane Furse, Glen Cowie, Moratiwa (Road R579) and Phokoane (junction of R579 and D4190), Jane Furse-Magnets Heights-Steelpoort (D2219) the Makhuduth-amaga Municipal Spatial Development Framework(2021) proposes intensification of retail development within these nodes. When more people frequent a particular activity node, the viability of the node increases and a greater variety of goods and services could be offered. Conversely, when the goods

and services on offer increase, more people are likely to visit the activity node on a regular basis. This phenomenon is known as the creation of critical mass.

The Framework Plan thus proposes that the majority of formal and informal business activities in the study area be consolidated within the Nodal Points and the local service point of Nebo as shown on the map below.





Map 23: Nebo local service point

The focus should be on optimising available land and on providing a wide variety of goods and services, thereby intensifying the respective activity nodes. The consolidation and intensification of business activities will not only make the nodes themselves more viable, but also assist in protecting the character of surrounding residential areas.

It is proposed that the following general guidelines/ spatial logic be applied to the future development of the identified activity nodes:

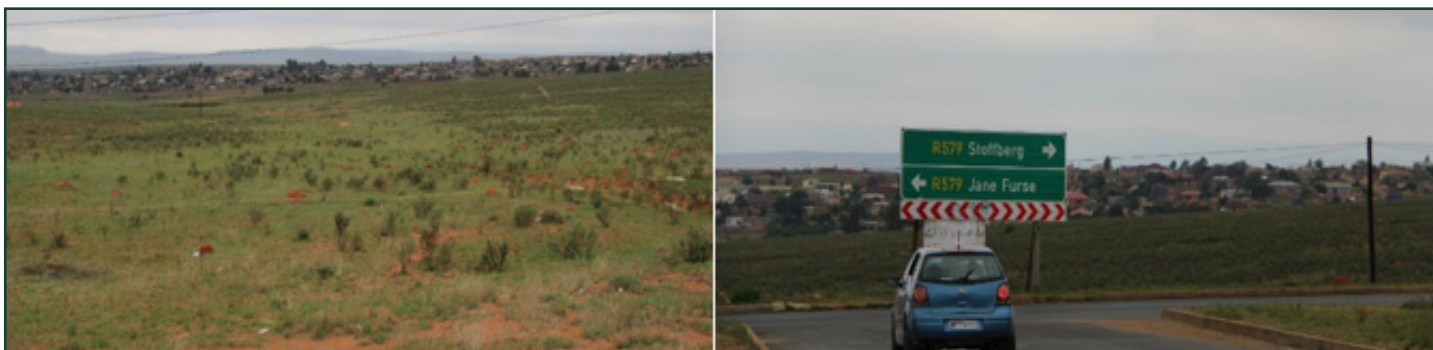
- That the erven that offer maximum accessibility and visual exposure from the main road be reserved for business use (retail, commercial, light industrial);
- That community facilities be consolidated with business activities to create one-stop centres;
- Community facilities are by nature less dependent on visual exposure, and can thus be located behind business activities;
- That an interface be created between the business area and

the residential areas by means of a school or public open space.

This Development Objective also encourages localised business and community services-related land uses to be established within the residential fabric – eg primary schools, spaza shops, car wash, etc, as well as mobile clinics and other localised services.

It should be mentioned, however, that – even at the local scale – such decentralised activities would still benefit from a certain amount of concentration/ consolidation. The most pertinent areas for such local business concentrations are namely at road intersections along more prominent movement lines and Service Delivery Points.

The intersection of the R579 and road D4190 at the Phokwane junction provides a better opportunity for that initiative as evidenced by a strategic vacant land parcel depicted in the picture below.



Picture set 10: vacant land parcel at the Phokwane junction along the R579 route ...
a good opportunity for mixed land use development anchored by commercial land use.

This SDF discourages the phenomenon of linear developments along the main movement routes. Key strategic intervention areas should be identified along corridors for intensification of mixed-use development. Access to these strategic intervention locations should be improved for the benefit of the outlying villages. This approach is also in pursuance of one of the objectives of this SDF which strives to improve connectivity between nodes and surrounding villages.

Lastly, it is proposed that active measures be taken to support entrepreneurs in the study area, especially within the informal economy, as they comprise an integral part of the study area's economy. It is proposed that public investment in this regard be focused on infrastructure provision. The Framework Plan proposes that:

- Informal traders be consolidated at strategic locations within activity nodes, for example adjacent to existing taxi ranks, in order to mitigate conflict with pedestrian movement along road reserves and sidewalks;
- A variety of permanent informal trade structures be constructed at these locations, to accommodate the respective needs of traders.

Strategy 7: Direct critical engineering infrastructure investment towards the Nodal Points and local service points as a stimulus for economic activity and resultant human settlement development. It is proposed that the existing formal water and sanitation network

in strategic nodal areas be gradually expanded and augmented to serve surrounding rural residential settlements. In planning the upgrading of water and sanitation infrastructure it would be advised to align the sequencing of projects with the proposed settlement formalisation programme.

The development potential of the identified activity nodes will be greatly dependant on the availability of bulk engineering infrastructure. Large-scale developments such as the proposed office relocation of District offices to Jane Furse depends on the Municipality's capacity to provide bulk services. Thus, the Municipality should actively engage the authorities to unlock the provision of bulk water supply and sanitation infrastructure in strategic nodes such as Jane Furse.

This Framework Plan thus proposes that the activity nodes be prioritised for engineering infrastructure maintenance and upgrades to inspire investor confidence which will translate into private sector investment within the nodes.

The SDF emphasizes that for the first three years of adoption the Makhuduthamaga Municipality in conjunction with other implementing agents develop and adopt infrastructure master plans for the nodal points of Jane Furse, Apel Cross, Phokoane, Moratiwa, Magnets Heights-Schoonoord (Sekhukhune), Moratiwa nodes and the Nebo local service point. Such master plans should prioritize services such as water and sanitation development plans, energy master plans and integrated waste master plans.

The infrastructure master plans that need to be developed will provide for current and future needs of the identified nodes as well as the expansion to surrounding settlements within their sphere of influence. Furthermore, the plan with these infrastructure master plans should be aligned with precinct plans that have been developed for all the identified nodes as well as future precinct plans so that there is integration between planning and implementation of associated infrastructure. The plan is to transform the nodes from their current rural status to fully-fledged urban centres (towns).

Strategy 8: Provide minimum basic services such as water, sanitation waste management and electricity to all communities outside nodes and local service points in line with the National Development Plan and Comprehensive Rural Community Development Plan.

This strategy is in line with the National Spatial Development Perspective, the National Development Plan and the Comprehensive Rural community Development Programme.

It is proposed that the existing formal water, sanitation, waste management and electricity network in the study area be upgraded to meet the current and future needs of communities in the Makhuduthamaga Municipality.

Although the Makhuduthamaga SDF proposes the strengthening and consolidation of settlement structure by focusing investment, infrastructure development and housing development in nodal areas (growth points), the municipality is still responsible for ensuring that all communities have access to minimum (RDP level) es-

sential services in terms of the Constitution. Hence, to ensure that the Municipality still lives up to its Constitutional obligation whilst striving to consolidate the dispersed settlement structure, the SDF proposes provision of services such as water, sanitation electricity and community facilities based on services needs of communities.

In planning the upgrading of water, sanitation, waste management and electricity infrastructure it would be advisable to align the sequencing of projects to be in line with the development proposals of this plan.

If all other settlements outside the nodal points and population concentration points are provided with a minimum level of services in accordance with the prescribed norms and standards then the influx of people to such nodes such as Jane Furse, Apel Cross, Schoonoord-Magnets Heights, Phokoane, Glen Cowie and Moratiwa and population concentration points will be reduced thereby easing the pressure on the already strained engineering services and the scarce land parcels in such areas. The provision of these basic levels of services is in line with the National Spatial Development Perspective, the National Development Plan as well as the Comprehensive Rural Development Programme.

The MLM, through its stakeholders' management and engagement platforms, should take the opportunity to conduct awareness campaigns on the relationship between settlement patterns and structures and the cost of providing much needed engineering services to such settlements. The provision of minimum level of

services to outlying communities should be implemented with awareness programmes in place whereby community members, the project steering committees and all key stakeholders including traditional authorities are made aware of the costs of providing such services and the impact of the currently fragmented, sparsely and low density settlement patterns on such costing. This will serve as a tool that the municipality can use to educate communities about the importance of high density mixed use development as a way of fostering spatial justice, good administration and spatial efficiency. This will result in current settlement sprawl in areas such as Moretsele, Glen Cowie, GaMarishane, Tisane and the rest of other MLM settlements can be curbed and smaller erven and infill be prioritized.

Strategy 9: Protect the natural environmental, conservation resources and historical sites to promote tourism development throughout the municipality.

It is vital to recognize that natural features in the study area such as ridges, rocky outcrops, river tributaries and nature reserves do not exist in isolation but form part of a regional eco-system. When one element is affected by development the broader natural system is also affected and may suffer as a result. The adverse effects of urban development should not only be noted, but prevented and mitigated as best possible.



Picture set 11: Some of the wonders of nature that need to be protected...the Leolo Mountains. Source file picture.



Picture set 12: *Protect natural water bodies such as the Ngwaritsi River in the MLM*

As provided for in the status quo report, a good tool that this SDF makes use of in the protection of the natural environment and conservation resources is found in the Critical Biodiversity Map that was produced by the Limpopo government as part of the provincial Conservation Plan (2013). The CBA table 13 below is worth reiterating in this chapter to provide a proper flow of strategies required to protect the MLM natural environment. The Critical Biodiversity Map does not oppose any land use development initiatives but helps in harmonizing development with environmental sustainability by guiding decision makers about the pros and cons of each development initiative.

Table 13: CBA Tool Kit for Evaluation of Land Use Development Initiatives

CBA Map Category	Description	Land Management Objectives	Land Management Recommendations	Compatible Land-Use	Incompatible Land-Use
	Formal Protected Areas And Protected Areas pending declaration under NEMPA.	Maintain in a natural state with limited or no biodiversity loss. Rehabilitate degraded areas to a natural or near natural state, and manage for no further degradation. Development subject to Protected Area objectives and zoning in a NEMPA compliant and approved management plan.	Maintain or obtain formal conservation protection.	Conservation and associated activities (e.g. eco-tourism operations), and required support infrastructure.	All other land-uses.

CBA Map Category	Description	Land Management Objectives	Land Management Recommendations	Compatible Land-Use	Incompatible Land-Use
Critical Biodiversity Areas (CBA1)	Irreplaceable Sites. Areas required to meet biodiversity pattern and/or eco-logical processes targets.No alternative sites are available to meet targets.	Maintain in a natural state with limited or no biodiversity loss. Rehabilitate degraded areas to a natural or near natural state, and manage for no further degradation.	Obtain formal conservation protection where possible. Implement appropriate zoning to avoid net loss of intact habi-tat or intensification of land use.	Conservation and associated activities. Extensive game farm-ing and ecotourism operations with strict control on environ-mental impacts and carrying capacities, where the overall there is a net biodiversity gain. Extensive Livestock Production with strict control on environ-mental impacts and carrying ca-pacities. Required support infrastructure for the above activities. Urban Open Space Systems	Urban land uses including Residential (including golf estates, rural residential, resorts), Business, Mining and Industrial; Infrastructure (roads, power lines, pipelines). Intensive Animal Production (all types including dairy farming associated with confinement, imported foodstuffs, and improved/ irrigated pastures). Arable Agriculture (forestry, dry land and irrigated cropping). Small holdings

CBA Map Category	Description	Land Management Objectives	Land Management Recommendations	Compatible Land-Use	Incompatible Land-Use
Critical Biodiversity Area (CBA2)	Best Design Selected Sites. Areas selected to meet biodiversity pattern and/or ecological process targets. Alternative sites may be available to meet targets.	Maintain in a natural state with limited or no biodiversity loss. Maintain current agricultural activities. Ensure that land use is not intensified and that activities are managed to minimize impact on threatened species.	Avoid conversion of agricultural land to more intensive land uses, which may have a negative impact on threatened species or ecological processes.	Current agricultural practices including arable agriculture, in-tensive and extensive animal production, as well as game and ecotourism operations, so long as these are managed in a way to ensure populations of maintained and the ecological processes which support them are not im-pacted. Any activities compatible with CBA1.	Urban land-uses including Residential (including golf estates, rural residential, resorts), Business, Mining and Industrial; Infrastructure (roads, power lines, pipelines). More intensive agricultural production than currently undertaken on site.

CBA Map Category	Description	Land Management Objectives	Land Management Recommendations	Compatible Land-Use	Incompatible Land-Use
					<p>Note: Certain elements of these activities could be allowed subject to detailed impact assessment to ensure that developments were designed to CBA2. Alternative areas may need to be identified to ensure the CBA network still meets the required targets.</p>

CBA Map Category	Description	Land Management Objectives	Land Management Recommendations	Compatible Land-Use	Incompatible Land-Use
Ecological Support Areas (ESA2)	Natural, near natural and degraded areas Supporting CBAs by maintaining ecological processes.	Maintain ecosystem functionality and connectivity allowing for limited loss of biodiversity pattern.	Implement appropriate zoning and land management guide-lines to avoid impacting ecological processes. Avoid intensification of land use. Avoid fragmentation of natural landscape.	Conservation and associated activities. Extensive game farming and ecotourism operations. Extensive Livestock Production. Urban Open Space Systems. Low density rural residential, smallholdings or resorts where development design and overall development densities allow maintenance of ecological functioning.	Urban land-uses including Residential (including golf estates), Business, Mining and Industrial; Infrastructure (roads, power lines, pipelines). Intensive Animal Production (all types including dairy farming associated with confinement, imported foodstuffs, and improved/ irrigated pastures). Arable Agriculture (forestry, dry land & irrigated cropping).

CBA Map Category	Description	Land Management Objectives	Land Management Recommendations	Compatible Land-Use	Incompatible Land-Use
Ecological Support Areas (ESA2)	Areas with no natural habitat that is important for supporting Ecological processes. .	Avoid additional/new impacts on ecological processes.	Maintain current land- use. Avoid intensification of land use, which may result in additional impact on ecological processes.	Existing activities (e.g. arable agriculture) should be maintained, but where possible a transition to less intensive land uses or ecological restoration should be favoured.	Any land use or activity that results in additional impacts on ecological functioning mostly associated with the intensification of land use in these areas (e.g. Change of floodplain from arable agriculture to an urban land use or from recreational fields and parks to urban).

CBA Map Category	Description	Land Management Objectives
Other Natural Areas	Natural and intact but not required to meet targets, or identified as CBA or ESA.	No management objectives, land management recommendations or land-use guidelines are prescribed. These areas are nevertheless subject to all applicable town and regional planning guidelines and policy. Where possible existing Not Natural areas should be favoured for development before “Other natural areas” as before “Other natural areas” may later be required either due to the identification of previously unknown important biodiversity features on these sites, or alternatively where the loss of CBA has resulted in the need to identify alternative sites.
No Natural Habitat Remaining	Areas with no significant direct biodiversity value.	
CBA Map Category	Description	
	Not Natural or degraded natural areas that are not required as ESA, including intensive agriculture, urban, industry; and human infrastructure.	

Table 13: CBA TABLE: Source: Limpopo Conservation Plan V.2 2013.

From the above CBA map one can clearly deduct that the map is a stop nonsense fence to in-compatible land use developments that is not in harmony with environmental sustainability. The CBA map does allow certain developments in some areas while putting conditions of establishment which the authorities can put on each proposed development while also blocking incompatible land uses in certain areas.

Keeping in mind that conservation does not necessarily refer to leaving land undeveloped. Open spaces should be utilised optimally and serves as multi-functional spaces of social interaction. It is proposed that the delineated open space system be integrated into the built environment fabric in, amongst others, the following ways:

- That public open space (including river buffers, wetlands and parks) be utilized for low intensity (minimal infrastructure) purposes – such as recreation – to add value to the urban landscape; while the Makhuduthamaga Municipality has taken initiatives to protect its wetland at Jane Furse within the CBD and prepared it as a public open space suitable for recreational purposes, much still need to be done in its preservation and maintenance. The wetland needs to be prioritized for zero waste tolerance. It is against this background that the Makhuduthamaga Municipality, in collaboration with Limpopo Economic Development, Environment and Tourism as well

as an organization called Working for Wetlands should develop and implement programmes on community awareness and mobilization so that such assets are protected. Furthermore there should be a buffer area around such assets beyond which no development should take place.

- That residential and business development, where possible, front onto the open space system rather than away from it, utilising it as a ‘front door’;
- That the open space system be utilized as part of the movement network where feasible, introducing ‘scenic’ pedestrian shortcuts as is the case with the Jane Furse Wetland within the CBD of the town;
- Finally, it is proposed that mountain and koppies areas in the study area be more effectively utilized. They have potential to be developed as tourism assets to the Makhuduth-amaga Municipality, while adding value to the surrounding communities. Possible interventions include the following:
 - o development of a series of hiking trails;
 - o a drive to mark indigenous trees with plaques;
 - o developing picnic spots, braai areas and playgrounds at suitable locations, etc

All of these interventions will lift the tourism profile of the area as a whole. This may be done without mitigating conservation efforts,

provided good management is exercised. The Makhuduthamaga Municipality should develop a tourism composite guide which will serve to market the tourism potential of the area and thereby strengthen the community's awareness and support of environmental conservation initiatives.

SPATIAL FRAMEWORKS PROPOSALS

INTRODUCTION

The purpose of this chapter is to provide detailed spatial development proposals for identified nodes and areas of strategic importance as reflected in this SDF. This chapter reinforces and aim to put in practice the principle and tool of spatial targeting as a tool to promote sustainable human settlements.

The attainment of this principle is in line with the National Development Plan's target on sustainable human settlements. According to the National Development Plan scenario "in 2030, the terrible spatial legacy of apartheid has finally been broken. South Africans have humane and environmentally sustainable living and working conditions. Their homes have all the basic services they need and are closer to their workplaces, to which they travel in safe public transport."

A local implementation of the National Development Plan on the Makhuduthamaga Local Sphere of government will by 2030 attain the following:

- Makhuduthamaga Municipality has a strong and efficient spatial planning system, well integrated with those of other

spheres of government in the provincial and national government.

- All informal settlements have been upgraded and are positioned on suitable, well-located land.
- More people live closer to their places of work.
- Public transport is of good quality.
- There are more jobs in or close to dense, nodal points of the municipality.

For the Makhuduthamaga Municipality to attain the above and improve settlement sustainability, equitability and affordability in communities there must be a radical shift and approach to its spatial planning practices. The municipality must adopt an integrated approach which will maximise the impact of land, mixed land uses, a variety of housing options, sufficient services and infrastructure, open areas and recreational facilities, proper access to social and economic amenities.

Places for employment and recreational facilities should be integrated with housing. There must be maximum public participation to ensure the involvement of a variety of role players and resources mobilisation.

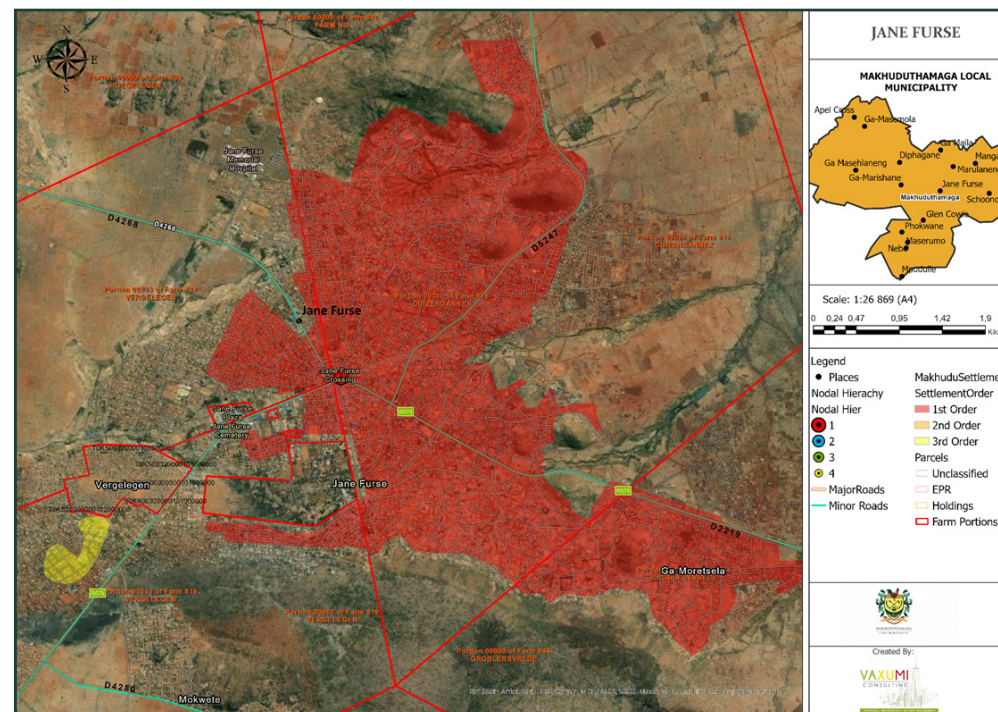
This radical shift cannot be attained properly with the current powers and functions in their current form. Currently all housing

funding and implementation is located at the provincial government within the Department of Cooperative Governance, Human Settlements and Traditional Affairs. The role of the municipality is only to identify areas where housing is implemented as well as beneficiaries of such housing units. The Makhuduthamaga Municipality should also apply to get accreditation for housing delivery to level 1 and level 2 and mobilize for post accreditation support. This is a target that the municipality should initiate now and ensure its attainment by 2023/24.

This principle has identified proposals targeted at nodal points as a way of promoting sustainable human settlements.

6.1 JANE FURSE NODAL POINT SPATIAL TARGETING PROPOSALS

It is noted that Precinct plans are in place for this node and thus there is no need for development of another one. What is more important is the implementation of programmes and projects identified in the precinct plan.



Map 24: Jane Furse locality map

a) Spatial Structure and Movement Network

Jane Furse is a district growth point located on the eastern part of the MLM. Jane Furse pre-cinct is made up of three (3) wards, Ward 11, Ward 18, and Ward 21. It is a modern rural town centred around rural townships such as Moretsele which are characterised by irregular layout plan, sprawl and fragmentation.

The R579 is the main road traversing through the Jane Furse node. This road connects Jane Furse to areas of strategic importance within Makhuduthamaga and to other regions such as Capricorn – Lebowakgomo and Polokwane, Groblersdal in Elias Motsoaledi and Steelpoort and Burgersfort in Fetakgomo Tubatse.

D2219 serves as the major street of the Jane Furse town and as a result constitutes the major corridor of activities in the node.

Based on the intensity of economic activities on that road, the following challenges are encountered:

- heavy traffic congestions which disrupt the free and smooth flow of traffic and thereby results in delays of movements and loss of economies of scale
- encroachments and illegal land allocation on the road reserves
- safety and health challenges

- Potential criminal activities on the corridor
- disruption of the aesthetic appeal of the area.
- hampering of pedestrianised movement.
- none-existent non-motorised transportation (NMT).

This SDF proposes the following transport interventions for Jane Furse node:

- Widening of D2219 to create a dual carriage way to improve traffic mobility within the Jane Furse CBD
- Provision of kerbs to curb illegal parking
- Provision of parking bays where appropriate
- Paving of all internal streets connecting to the CBD and also all internal streets within the node
- Provision of bus and taxi shelters for passengers at strategic points
- Provision of inter-modal transportation facilities in a strategic location
- Promotion of multimodal movement along major streets to accommodate both vehicles and non-motorised movement

Public Transport:

Jane Furse is served by public transport in the form of busses and taxis which connects to local settlements and regional settlements outside the MLM to areas such as Polokwane, Tubatse, Mpumalanga and Gauteng.

There are formal and informal taxi ranks in the node, however, the provision of taxi ranks is not sufficient to meet the demands of the sector.

The municipality, in conjunction with Roads Agency Limpopo, should make provision of a dual carriage way road leading to the CBD to address the challenge of traffic congestion targeting the D2219 in both directions that is between Jane Furse and Moratiwa south wards and between Jane Furse and Magnets Heights north-east wards.

Feasibilities for road by-pass should be explored for the town of Jane Furse to ease the CBD of the uncontrollable traffic congestion in the area. However, such feasibilities should factor the cost benefit analysis to ensure that existing businesses in the CBD do not suffer from loss of business because of the redirection of traffic and customers from the town centre.

This SDF proposes the undertaking of a detailed traffic impact study for the Jane Furse node. This study should explore various interventions that could be explored to unlock the movement

challenges faced by this primary node. The study should also make provision for improved pedestrian movement in the CBD.

Another proposal is the provision of sidewalks and pedestrian facilities with associated street furniture such as street benches to encourage side walking and cycling (refer to Map 34). This should be coupled with the provision of facilities for cycling.

b) Land ownership and Land tenure status

According to the Integrated Development Plan (2016-2021), Makhuduthamaga SDF (2015), Makhuduthamaga LED Strategy and Jane Furse Precinct Plan (2020), Jane Furse town is situated on land covering two farms, viz, Vergelegen 819 KS (portion 1-3) and Duizendannex 816, KS

In terms of the registered ownership of the land where the town is situated, the South African government is the registered owners. However, the town and its surrounding townships and villages fall under the custodianship of traditional authorities. Another challenge which has a huge bearing on the ownership and tenure status is the multiple and conflicting land claims on the same land parcels constituting Jane Furse town.

This ownership and tenure uncertainty does not bode well for the sustainable development of the area through direct and indirect investments in the area.

Farm name	Owner	Claimant
Vergelegen	Unregistered	Manganeng Tribe KRP 2542; Monyaka Seroma Trust KRP 1625
Duizendannex	RSA	Manganeng Tribe KRP 2542; Monyaka Seroma Trust KRP 1625

Table 14: Competing land claims affecting Jane Furse node (source Jane Furse Precinct Plan 2020)

c) Engineering services and Community facilities

In terms of engineering services for Jane Furse node the following is the current reality:

• Energy provision

Jane Furse has a fairly sufficient supply of electricity. ESKOM is the authority responsible for electricity in the area. What is lacking in the node, as is the case with the rest of Makhuduth-amaga settlements, is migration from reliance on grid energy to alternative energy provision in the form of green energy forms such as solar, wind and gas energy. Migration to alternative energy supply will achieve two objectives. First it will provide sustainable energy supply given capacity challenges encountered currently through regular load shedding from the power utility. Secondly, green energy will promote environmental sustainability as it will contribute to a reduction in the carbon footprint.

• Bulk water and sewer

According to the MLM IDP and the Precinct Plan for Jane Furse,

the provision of water and sanitation is the responsibility of the Sekhukhune District Municipality. There is better provision of bulk water for the inner town, however settlements surrounding this node do not enjoy sustainable provision of water.

On the provision of sewerage services for the node, the situation is not satisfactory. There is no sustainable provision of the service. There is a waste water treatment plant for the node but the service is not up to the standard befitting a settlement of Jane Furse's magnitude.

• Solid waste management

The MLM is responsible for refuse removal and waste management for the Jane Furse node. According to the MLM IDP (2016-2021) the refuse removal service for the node is collected weekly. There is also a dedicated licenced landfill site for the node. However, during field visits by the project team to the node there appeared to be challenges of uncontrolled littering and waste management in the area. Picture set 13 indicates challenges of cleanliness for the node.



Picture set 13: *Littering in Jane Furse node*

The chapter of this framework on the spatial analysis of the current reality reflects gaps that work against sustainable and efficient provision of full engineering services for the entire town in a seamless manner. This SDF proposes a full audit of the engineering services for the current use as well as future demand so that attracted investments will not be frustrated by unsustainable service provision.

For that to be attained, the municipal Economic Development and Planning, and the Infrastructure Development (Technical Services) Departments must develop full infrastructure Master Plans that will be able to provide for current and future developments for the Jane Furse node in a sustainable manner.

Those Master Plans must be coupled with the implementation of an effective GIS system so that future planning and implementation of projects can be done with readily available information.

The municipality should prioritize the provision of alternative sources of energy which include green energy where the town can be energized on solar, wind and other forms of energy other than

coal driven energy as is the practice in most towns where robots and other energy driven equipment have been removed from the grid.

- **Community Facilities**

Jane Furse node hosts a number of social and community facilities that provide a range of services to communities within and outside its sphere of influence. Such community facilities include the head offices of the MLM, a regional hospital, police station, educational institutions, sports and recreational facilities, transport handling facilities. These community facilities and government services have a mutually symbiotic relationship with the existing retail facilities in the node.

The relocation of the regional offices of the Sekhukhune District from Lebowakgomo in the Capricorn District to Jane Furse will change the entire landscape of the node as will be reflected in the composite precinct plan for the node in this report.

It is proposed that access to all these community facilities should be facilitated with ease by providing for various modes of transport including public transport facilities such as bus shelters and semi taxi stations.

d) Spatial constraints and opportunities

Spatial constraints

The project team has identified the following as high-level spatial constraints for Jane Furse node:



Figure 10: Spatial constraints for Jane Furse town

Spatial opportunities

The following have been identified as high level spatial opportunities for Jane Furse town:



Figure 11: Spatial opportunities for Jane Furse town

e) General proposals for Jane Furse node

The precinct plan for Jane Furse (Map 24) has made proposals for the development of new land uses mainly in the Greenfield site adjacent the new Jane Furse memorial hospital. Such land uses include the new civic precinct, commercial zone, light and heavy industrial zones west of the R579 (D2119) as depicted on the map below. A mixed use development is proposed along the activity corridor passing through the CBD of the node.

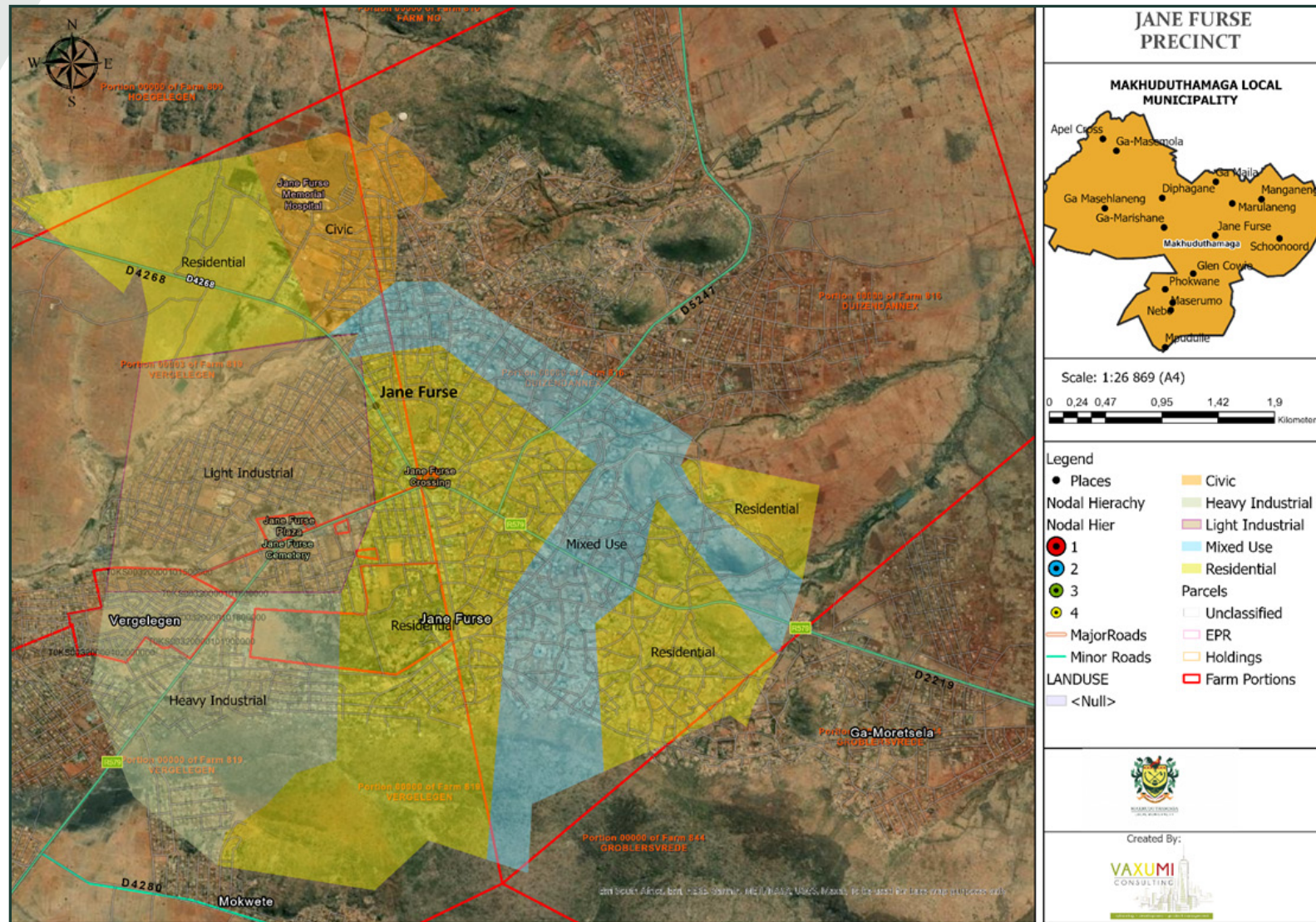
This revised SDF further proposes the following for Jane Furse node

- The definition of the development boundary for the Jane Furse node to curb urban sprawl.
- Promotion of infill developments in strategic locations within the node.
- Clearly defined development controls including permitted uses and densities in designated areas.
- Provision of place making and cultural identity such as legible gateway signs, street names and managed public places and street scape;

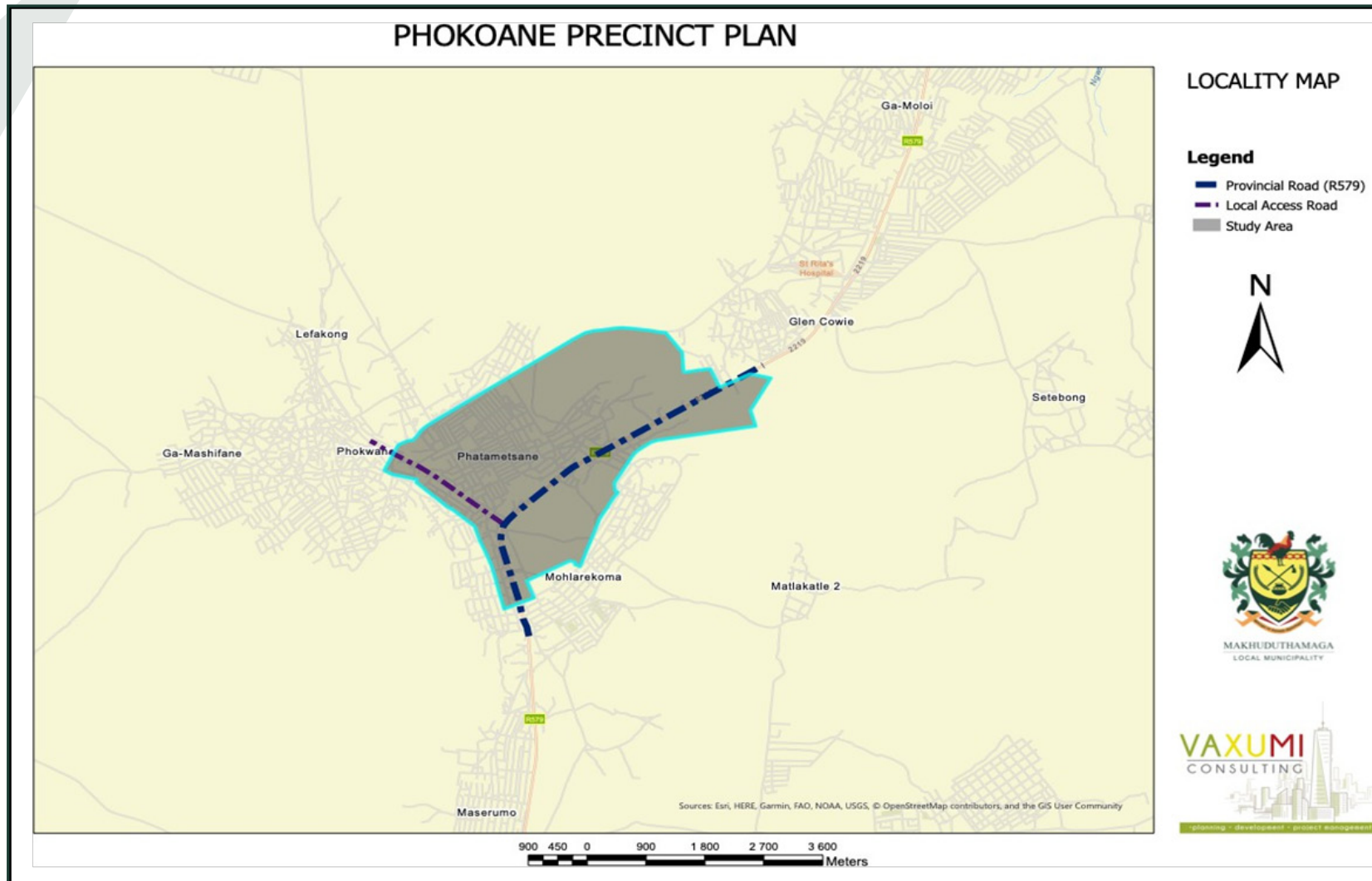
- Proper maintenance of public open spaces, road reserves and vacant land;
- Due to the accelerated demand for development in this node this SDF further proposes the application of shortened land use Development Procedures and flexibility in the amend-ment of land use schemes. This will support the spatial principle of efficiency and good administration.
- Establishment of Green Committees to deal with the aspects of environmental manage-ment and cleanliness. Such committee can also initiate competitions such as the clean est street or institution to promote cleanliness in the node.
- Promotion of backyard gardens and orchards

6.2 PHOKOANE NODAL POINT SPATIAL TARGETING PROPOSALS

It is noted that Precinct plans are in place for this node and thus there is no need for develop-ment of another one. What is more important is the implementation of programmes and pro-jects identified in the precinct plan



Map 25: Composite precinct plan for Jane Furse



Map 26: Phokoane locality map

a) Spatial Structure and Movement Networks

Phokwane node is located on the eastern part of the MLM at approximately 10 kilometres from Jane Furse town. Located in wards 2 and 3 of the MLM, Phokwane is predominantly an agricultural, made up of informal and formal settlements (source: Phokwane precinct plan).

Phokwane is located on the state owned farms Uitkyk 851, KS – Remaining Extent, Portion 2

- 3, 7 - 9, 12, 14 - 17 and 28 and Ontevreden 838, KS – Remaining Extent and Portion 1.

Dominant land uses for the node are residential, commercial (informal and formal), institution-al in the form of government services such as schools, health facilities, department of educa-tion administrative offices, library and religious centres (churches). The spatial structure indi-cates low density development characterised by fragmentation and sprawl.

The aesthetic nature of the node is compromised by serious decay in the study area as evidenced by picture set 14 below



Picture set. 14: Decay in the activity node of Phokwane

According to the Phokoane precinct plan, the main challenges affecting Phokwane are as follows:

The main challenges faced at Phokoane are as follows:

- Lack of environmental management;
- Sprawled development;
- Communal land use management;
- Lack of adequate water and sanitation to service settlements;
- Unresolved and competing land claims in the area threaten to destabilize future development;
- Illegal occupation of land;
- Low density and uncoordinated commercial developments (source: Phokwane precinct plan, 2020)

Movement networks

The R579 is the main road traversing through the Phokoane node. This road connects Phokoane to areas of strategic importance within Makhuduthamaga and to other regions such as Jane Furse on the eastern part, Groblersdal in Elias Motsoaledi and Steelpoort and Burgersfort in Fetakgomo Tubatse.

The intersection of the R579/D4370 (east to west) and D4295 (northbound) creates a junction of strategic importance to the node as will be reflected in the proposals below.

Based on the intensity of economic activities on the R579 road and the junction in particular, the following challenges are encountered:

- heavy traffic congestions which disrupt the free and smooth flow of traffic and thereby results in delays of movements and loss of economies of scale
- encroachments and illegal land allocation on the road

reserves

- safety and health challenges
- Potential criminal activities on the corridor
- disruption of the aesthetic appeal of the area.
- hampered pedestrian movement

This MSDP proposes the following transport interventions for the Phokoane node:

- Widening of the R579 to a dual carriage way to accommodate both vehicle and non-motorised movement and to improve overall mobility within the Phokoane CBD
- Provision of kerbs to curb illegal parking
- Provision of parking bays where appropriate
- Improving connectivity by paving of all internal streets linking surrounding areas to the CBD and also all internal streets within the node
- Promotion of non-motorised movement
- Provision of bus and taxi shelters for passengers at strategic points
- Pedestrian sidewalks and cycling routes

Public Transport:

Phokoane is served by public transport in the form of buses and taxis which connects to local settlements and regional settlements outside the MLM to areas such as Polokwane, Tubatse, Mpumalanga and Gauteng.

There are formal and informal taxi ranks in the node, however, the provision of taxi ranks is not sufficient to meet the demands of the sector.



Picture set 15: Formal taxi rank at Phokwane

The municipality, in conjunction with Roads Agency Limpopo, should make provision of a dual carriage way road leading to the CBD to address the challenge of traffic congestion targeting the R579 in both directions.

Another proposal is the provision of sidewalks and pedestrian facilities with associated street furniture such as street benches to encourage side walking and cycling. This should be coupled with the provision of facilities for cycling.

There is also a need to provide an intermodal public transport facility to cater for the node

b) Land ownership and Land tenure status

According to the Integrated Development Plan (2016-2021), Makhuduthamaga MSDP (2015), Makhuduthamaga LED Strategy and Phokoane Precinct Plan (2020), Phokoane town is situated on land covering two farms, viz, Uitkyk 851, KS (Portion 2- 3, 7 - 9, 12, 14 - 17 and 28) and Ontevreden 838, KS (Remaining Extent and Portion 1)

In terms of the registered ownership of the land where Phokoane is situated, the South African government is the registered owners. However, the Phokoane and its surrounding townships and villages fall under the custodianship of traditional authorities. Like other nodes and settlements in MLM, another challenge which has a huge bearing on the ownership and tenure status is the multiple and conflicting land claims on the same land parcels constituting Phokwane node as shown on table 15 below. This ownership and tenure uncertainty does not bode well for the sustainable development of the area through direct and indirect investments in the area.

c) Engineering services

In terms of engineering services for Phokoane node the following is the current reality:

- **Energy provision**

Phokwane has a fairly sufficient supply of electricity. ESKOM is the authority responsible for electricity in the area. What is lacking

in the node, as is the case with the rest of Makhuduthamaga settlements, is migration from reliance on grid energy to alternative energy provision in the form of green energy forms such as solar, wind and gas energy.

Migration to alternative energy supply will achieve two objectives. First it will provide sustainable energy supply given capacity challenges encountered currently through regular load shedding from the power utility. Secondly, green energy will promote environmental sustainability as it will contribute to a reduction in the carbon foot print.

- **Bulk water and sewer**

According to the MLM IDP and the Precinct Plan for Phokoane, the provision of water and sanitation is the responsibility of the Sekhukhune District Municipality. There are backlogs on the provision of water and sanitation in the node. The situation is worsened by capacity constraints of the existing network. There is no waterborne sewerage capacity in the node, hence pit latrines are the dominant kind of sanitation.

The huge influx of people in need of opportunities to the node creates challenges on the already strained infrastructure. The Municipality has to actively coordinate and prioritise the provision of bulk water for the node to function optimally.

- **Solid waste management**

The MLM is responsible for refuse removal and waste management for the Jane Furse node. According to the MLM IDP (2016-2021) the

refuse removal service for the node is collected weekly. There is no licenced landfill site for the node, but reliance is on the Jane Furse node which is about 10 kilometres from Phokwane.

The chapter of this framework on the spatial analysis of the current reality reflects gaps that work against sustainable and efficient provision of full engineering services for the entire town in a seamless manner.

This SDF proposes a full audit of the engineering services for the current use as well as future demand so that attracted investments will not be frustrated by unsustainable service provision. For that to be attained, the municipal Economic Development and Planning, and the Infrastructure Development (Technical Services) Departments must develop full infrastructure Master Plans that will be able to provide for current and future developments for the Phokwane node in a sustainable manner. Those Master Plans must be coupled with the implementation of an effective GIS system so

that future planning and implementation of projects can be done with readily available information.

The municipality should prioritize the provision of alternative sources of energy which include green energy where the Phokwane node can be energized on solar, wind and other forms of energy other than coal driven energy as is the practice in most towns where robots and other energy driven equipment have been removed from the grid

- **Community Facilities**

This node hosts community and social services in the form of educational facilities, health centre, library, rudimentary sports and recreation facilities, post office, station for Department of Agriculture, taxi rank, cemetery and religious institutions such as churches. Other facilities include places of entertainment such as clubs and taverns.

Farm name	Owner	Claimant
Remaining Extent of the Farm Uitkyk 851, KS;	National Govern-ment of South Africa	Phokoane Tribe KRP1895; Malaka Tribe KRP 10289; Bakone Ba Mmanakana KRP 11722
Portion 3 of the Farm 851, KS	Government of Lebowa	Phokoane Tribe KRP1895; Malaka Tribe KRP 10289; Bakone Ba Mmanakana KRP 11722
Portion 7 of the Farm 851, KS	Phokoane Tribe	No known registered claim (currently)
Portion 8 of the Farm 851, KS	Government of Lebowa	No known registered claim (currently)
Portion 9 of the Farm 851, KS	National Government of South Africa	No known registered claim (currently)
Portion 12 of the Farm 851, KS	Mabuza Moshidi	No known registered claim (currently)

Farm name	Owner	Claimant
Portion 14 and 15 of the Farm 851, KS	National Government of South Africa	No known registered claim (currently)
Portion 16, 17, 21 and 28 of the Farm 851, KS	Not Registered	Phokoane Tribe KRP1895; Malaka Tribe KRP 10289; Bakone Ba Mmanakana KRP 11722
Farm Ontevreden 838, KS.	Government of Lebowa	Phokoane Tribe KRP 1577/ Mamosadi Ngwanapofu KRP 11595 & other Individuals

Table 15: Competing land claims affecting Phokwane node (source Phokwane Precinct Plan 2020)

d) Spatial constraints and opportunities

The project team has identified the following as high level spatial constraints for Phokwane node:

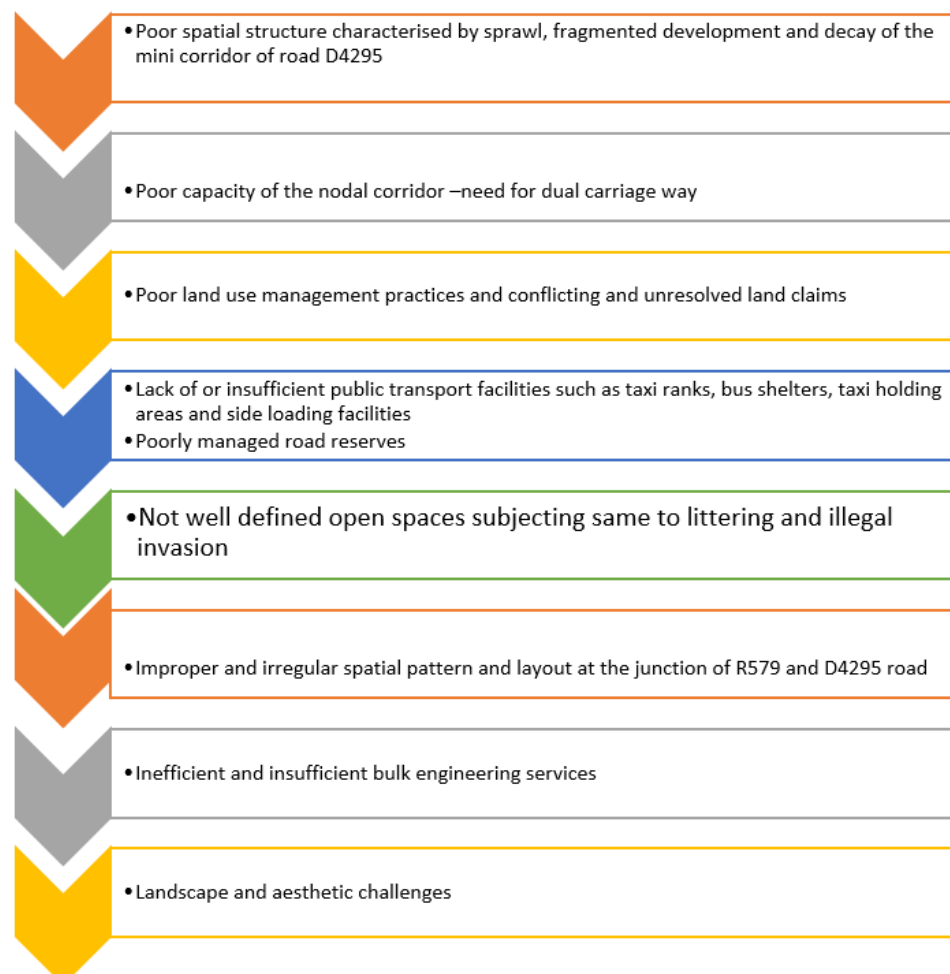


Figure 12: Spatial constraints for Phokoane node

Spatial opportunities

The following have been identified as high level spatial opportunities for Phokoane node:

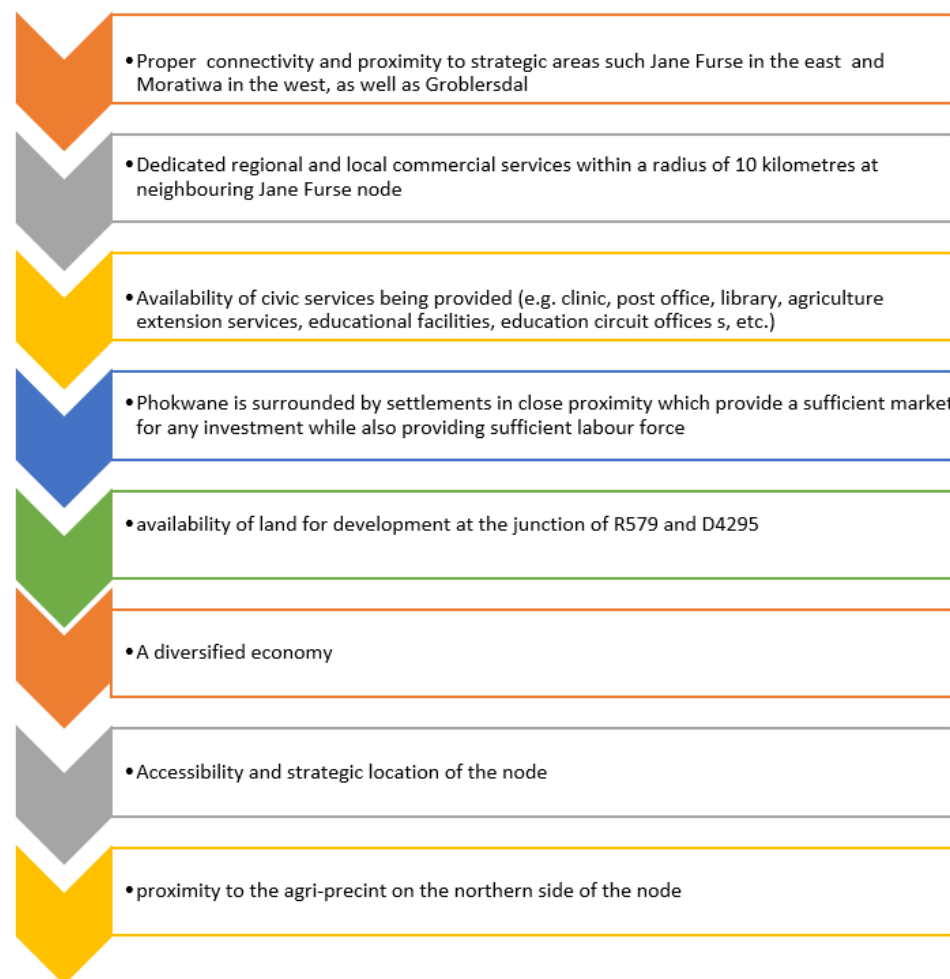


Figure 13: Spatial opportunities for Phokoane node

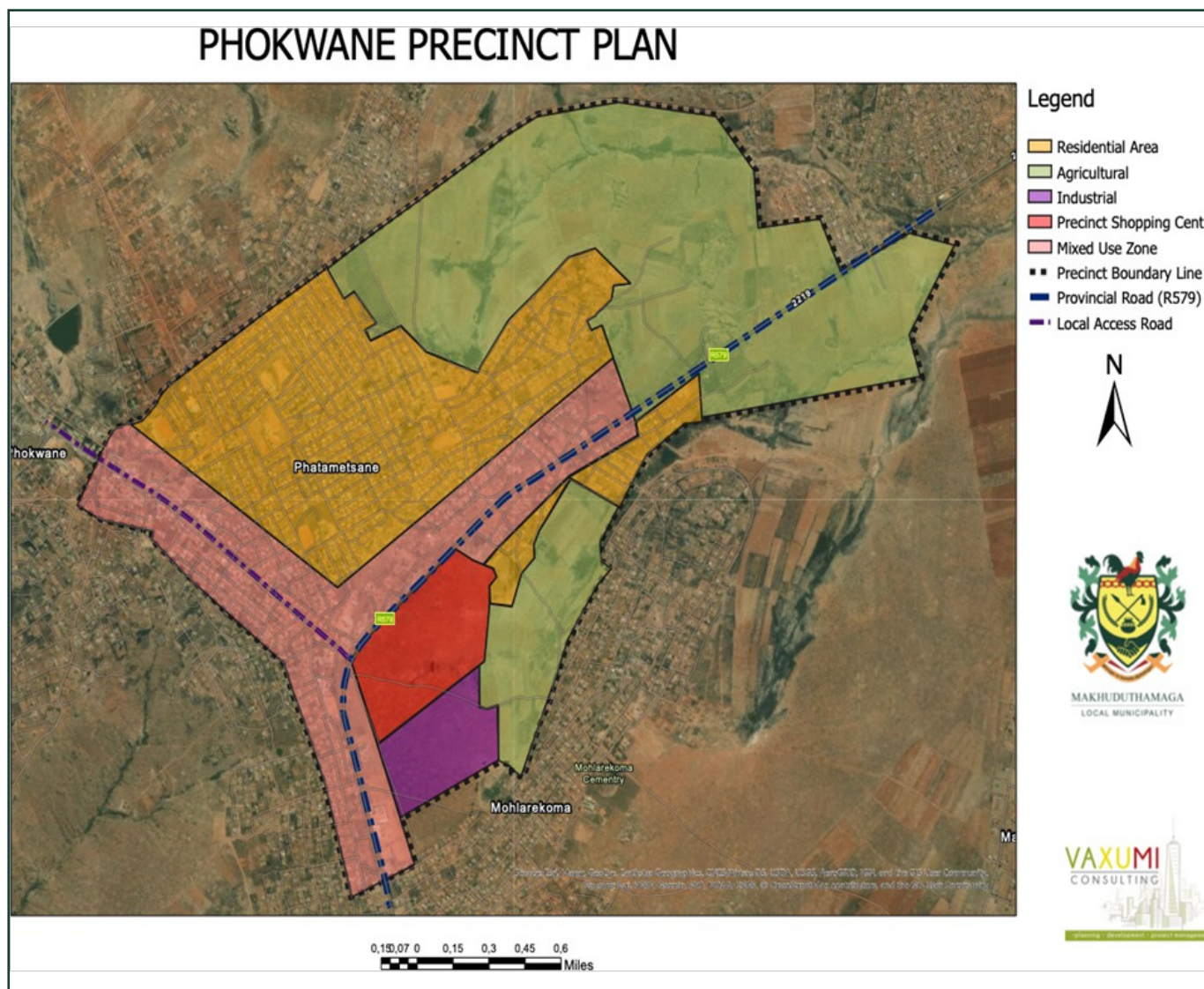
The precinct plan for Phokwane proposes developments of various uses as identified in the strategic thrusts of that plan. Key amongst those identified uses are the residential one as an enhancement of the already residential footprint of the node, mixed land use development along the R579 and D4295 route. What is proposed as a catalytic development that will trigger the urbanization of the area is the commercial and industrial use on the junction of R579 and D4295 adjacent to Mohlarekoma village east of Phokwane as reflected on the map 26 below.

This revised SDF proposes that the MLM, Department of Rural Development and Land Reform and traditional authorities in the area agree in principle on the reservation of the identified land parcels for the envisaged uses and development. It is on the commercial and industrial land parcels that trade-offs may be

entered with suitable investors on long term leases for the provision of critical and comprehensive engineering services for the Phokwane node.

The MLM can piggyback on availability of land on long term leases at reduced rental amounts as incentives for would be investors to develop engineering master plans and install full engineering services for the Phokwane node including areas outside where their investment footprints will be scaled.

Another critical proposal from the precinct plan is to enhance the underexploited agricultural land use for the area. That can go a long way in supporting food security while also creating much needed employment to the area. However, the delay in the resolution of land claims for the node may serve as a stumbling block to the realisation of this ambitious plan.



Map 27: Composite precinct plan for Phokwane

6.3 APEL CROSS NODAL POINT SPATIAL TARGETING PROPOSALS

It is noted that Precinct plans are in place for this node and thus there is no need for development of another one. What is more important is the implementation of programmes and projects identified in the precinct plan.

Apel Cross has been identified by the MLM MSDF 2015 as one of the most important secondary nodes of the Makhuduthamaga area. The node is located on the northern boundary of the Makhuduthamaga Municipality and enjoy proximity to the Capricorn District on the northern part while also connecting with the Fetakgomo-Tubatse Municipality within the Sekhukhune District on the eastern part. The locality map of the Apel Cross node is reflected below as map 27 of this report.

(a) Spatial Structure and Movement Network

Apel Cross is located at the northern tip of the MLM and is located at the intersection of R579 and D4250 route. The area comprises of low density and low intensity development within a farming precinct next to the border with Capricorn district (Lepelle Nkumpi Municipality) and it is also in close proximity to the perennial Ollifants River.

As per the land use map (map 29) below, Apel Cross's dominant land uses are residential and agriculture. Other land uses include institutional uses such as schools, clinic, SAPS station and

community facilities such as taxi ranks. Retail/commercial land uses also grace the spatial land scape of Apel Cross

Movement network proposals

Roads & Public Transport

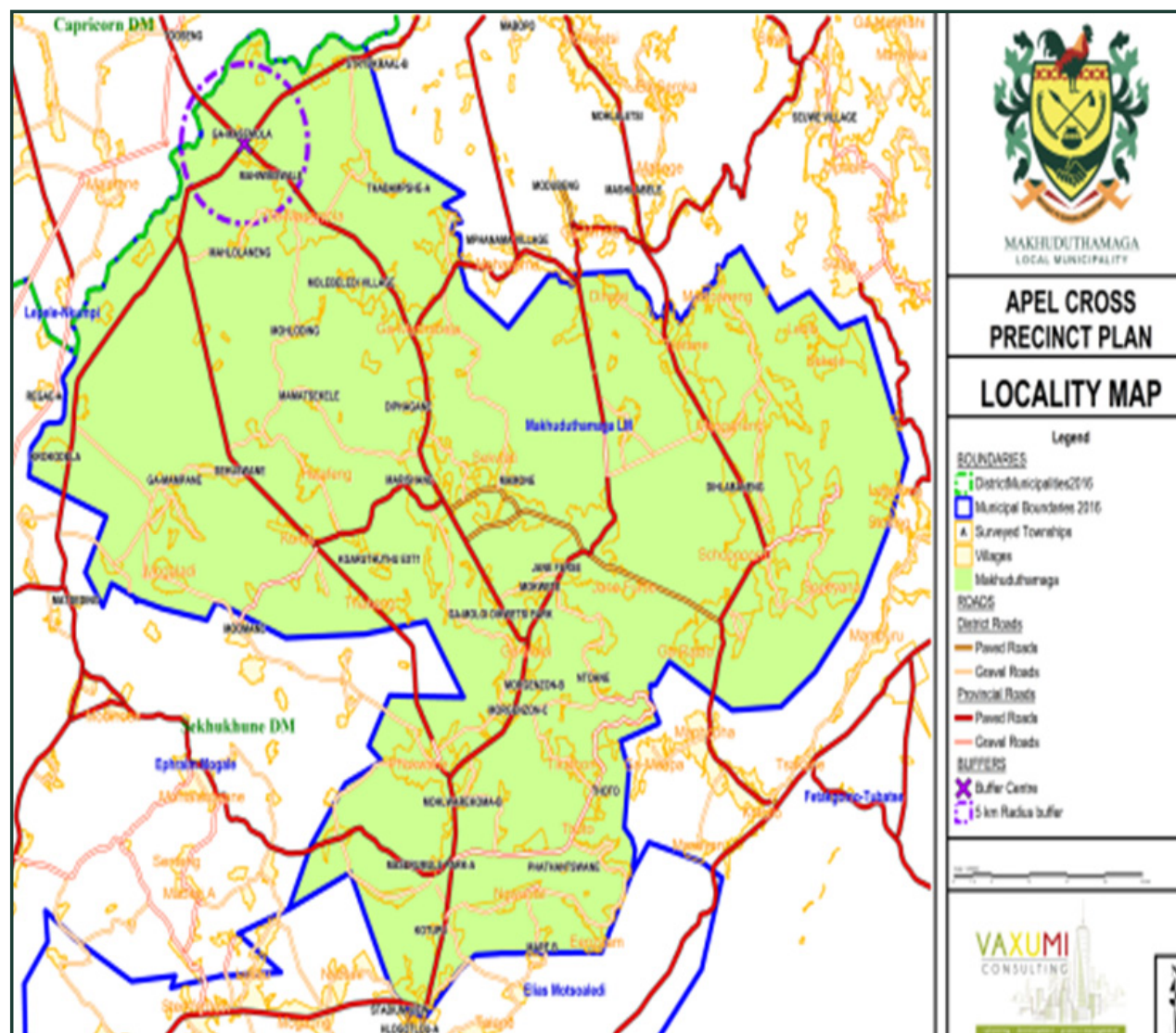
Roads:

The R579 is the main road traversing through the Apel Cross node en route to the Jane Furse node. This road connects Apel Cross to other regions such as Capricorn –Lebowakgomo and Polokwane in the north.

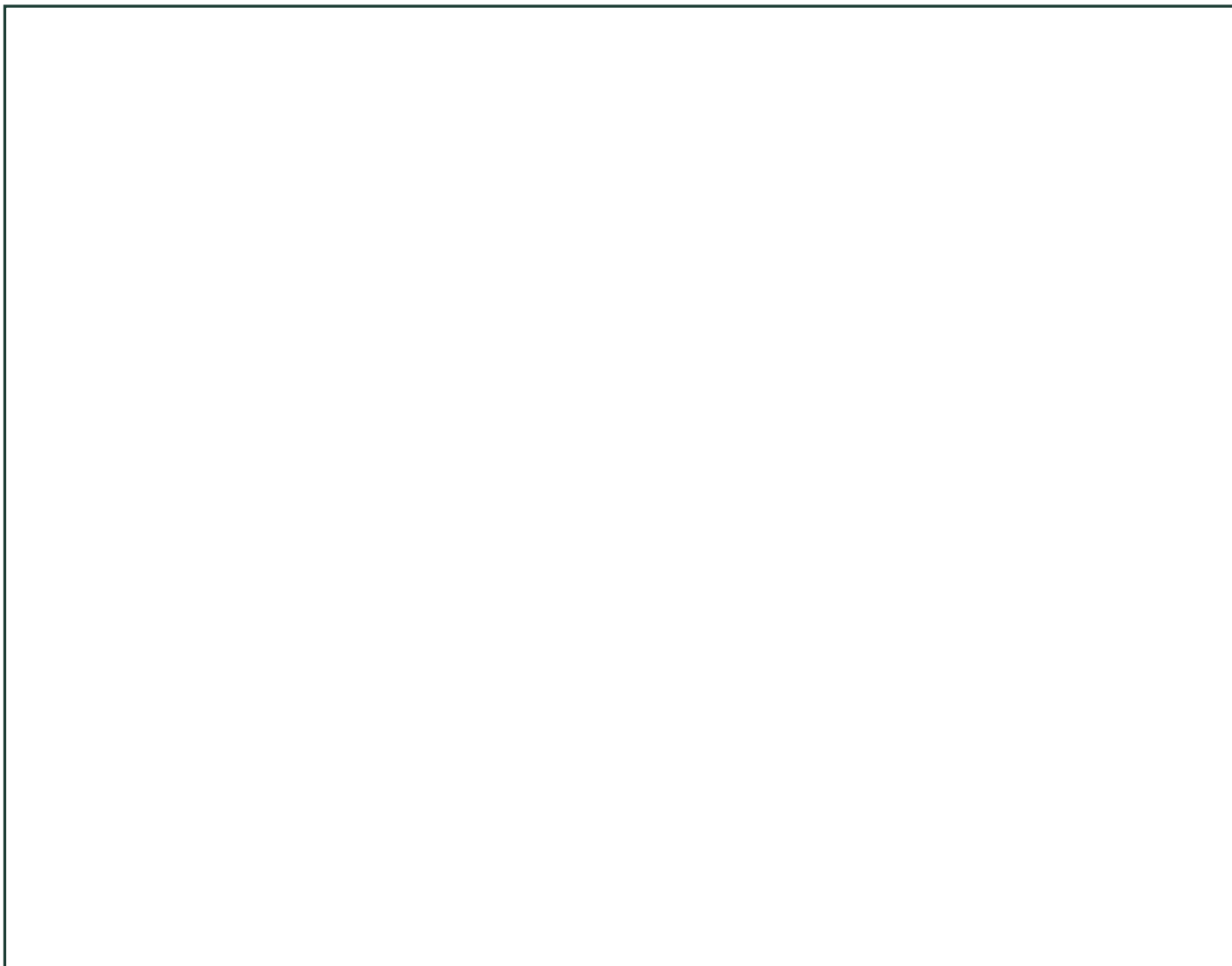
R579 also serves as the major street of the Apel Cross node and as a result constitutes the major corridor of activities in the node. Road D 4250 which transverses the node from east to west is also of strategic importance and it is as a result of its intersection with R579 that the name Apel Cross is derived.

This SDF proposes the following transport interventions for Jane Furse node:

- Widening of R579 to create a dual carriage way to improve traffic mobility within the Jane Furse CBD
- Provision of kerbs to curb illegal parking
- Provision of parking bays where appropriate
- Paving of all internal streets connecting to the CBD and also all internal streets within the node
- Provision of bus and taxi shelters for passengers at strategic points
- Pedestrian sidewalks and cycling routes



Map 28: Locality of Apel Cross within the MLM



Map 29: *Dominant land uses for Apel Cross node*

Public Transport:

Public transport is provided in the node in the form of taxis and buses. Major destinations are the Jane Furse primary node, Lebogomo and Polokwane in the Capricorn district where major government offices (provincial and district) are located. As a result of its strategic location and accessibility, the node is also well connected to Apel, Schoonoord, Marble Hall and Groblersdal.

While there is a standard taxi rank at the node, makeshift informal ranks are also available in the node especially towards the police station and sports complex.

There is no adequate provision of public transport infrastructure in the form of bus and taxi stop shelters and this poses a life risk to commuters especially during rainy days or extreme hot temperatures. The proposal is the provision of sidewalks and pedestrian facilities with associated street furniture such as street benches to encourage side walking and cycling (refer to Map 34). This should be coupled with the provision of facilities for cycling. Intermodal public transport facilities also need to be provided for the node to cater for minibus taxis, metred taxis, buses and other modes of public transport.

b) Land ownership and Land tenure status

Apel Cross is an area falling under the custodianship of traditional leadership. There is no security of tenure for residents as they use the limited form of ownership known as Permission To Occupy (PTO). This on its own does not create a conducive environment for

massive investments in the form of financial injections for commercial development of a huge magnitude.

c) Engineering services

In terms of engineering services for Apel Cross node the following is the current reality:

- **Energy provision**

Apel Cross has a fairly sufficient supply of electricity. ESKOM is the authority responsible for electricity in the area. What is lacking in the node, as is the case with the rest of Makhuduth-amaga settlements, is migration from reliance on grid energy to alternative energy provision in the form of green energy forms such as solar, wind and gas energy. Migration to alternative energy supply will achieve two objectives. First it will provide sustainable energy supply given capacity challenges encountered currently through regular load shedding from the power utility. Secondly, green energy will promote environmental sustainability as it will contribute to a reduction in the carbon footprint. Map 30 below reflects the grid electricity network for Apel Cross

- **Bulk water and sewer**

According to the MLM IDP and the Precinct Plan for Apel Cross, the provision of water and sanitation is the responsibility of the Sekhukhune District Municipality. There is better provision of bulk water for the node, however settlements surrounding this node do not enjoy sustainable provision of water.

On the aspect of water borne sewerage, the node does not have

such infrastructure provided in the area. Only pit latrines are used in the node.

There are some pockets of households and institutional facilities such as the Masemola police station that have access to water borne sewerage facilities relying on septic tanks that are drained when full. Such facilities are not safe for the underground water sources

- **Solid waste management**

The MLM is responsible for refuse removal and waste management for the Apel Cross node. According to the MLM IDP (2016-2021) the refuse removal service for the node is collected weekly. There is no dedicated licenced landfill site for the node

As with the Jane Furse node, this chapter of this framework on the spatial analysis of the current reality reflects gaps that work against sustainable and efficient provision of full engineering services for the entire town in a seamless manner.

This SDF proposes a full audit of the engineering services for the current use as well as future demand so that attracted investments will not be frustrated by unsustainable service provision.

For that to be attained, the municipal Economic Development and Planning, and the Infrastructure Development (Technical Services) Departments must develop full infrastructure Master Plans that will be able to provide for current and future developments for the Apel

Cross node in a sustainable manner as was proposed for the Jane Furse node supra. Those Master Plans must be coupled with the implementation of an effective GIS system so that future planning and implementation of projects can be done with readily available information.

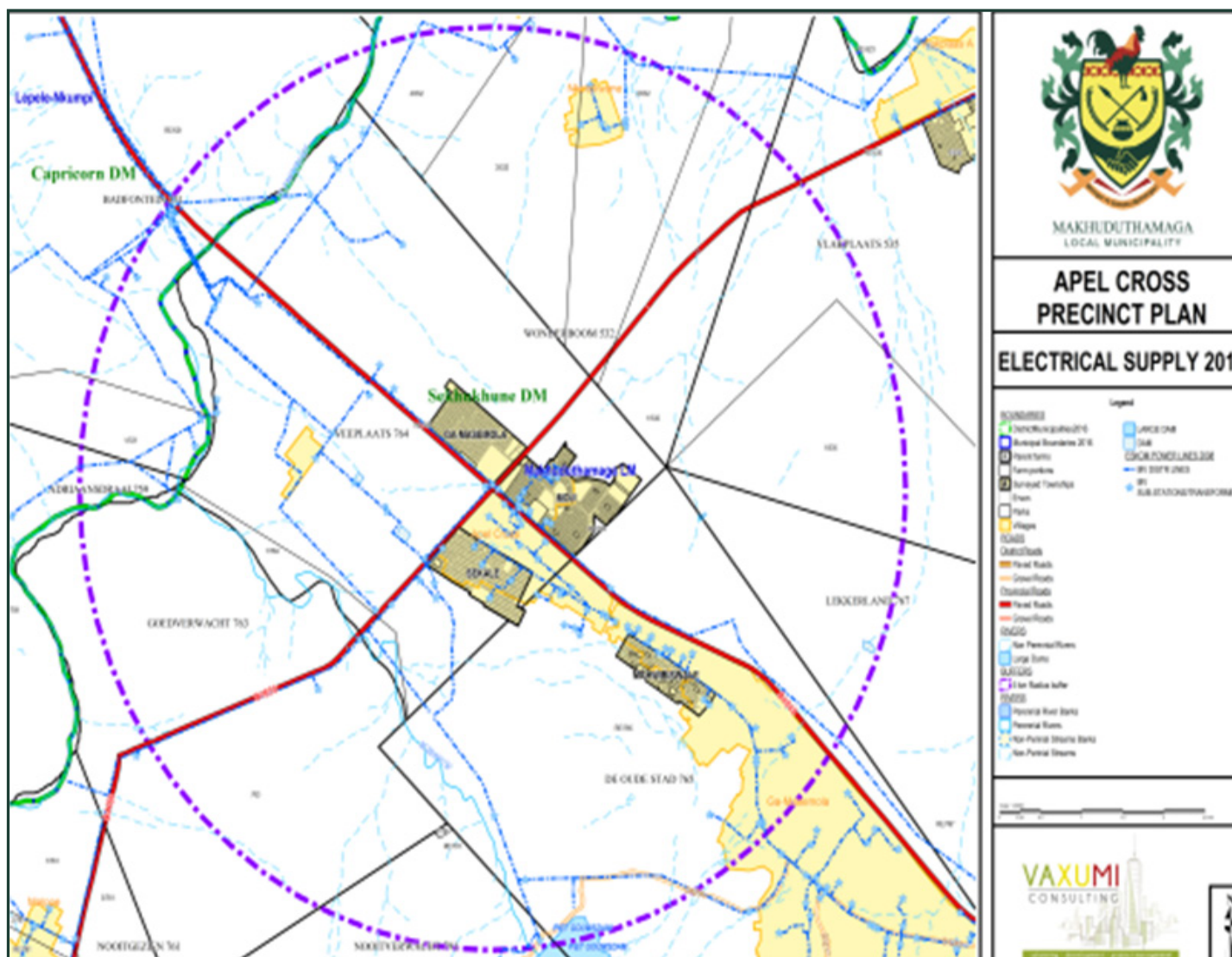
The municipality should prioritize the provision of alternative sources of energy which include green energy where the town can be energized on solar, wind and other forms of energy other than coal driven energy as is the practice in most towns where robots and other energy driven equipment have been removed from the grid

d) Community Facilities

Apel Cross node hosts a number of social and community facilities that provide a range of services to communities within and outside its sphere of influence. Such community facilities include a police station, educational institutions, standard sports and recreational facilities (Masemola stadium), transport handling facilities.

These community facilities and government services have a mutually symbiotic relationship with the existing retail facilities in the node.

It is proposed that access to all these community facilities should be facilitated with ease by providing for various modes of transport including public transport facilities such as bus shelters and semi taxi stations.



Map 30: Reflects electricity supply infrastructure for Apel Cross

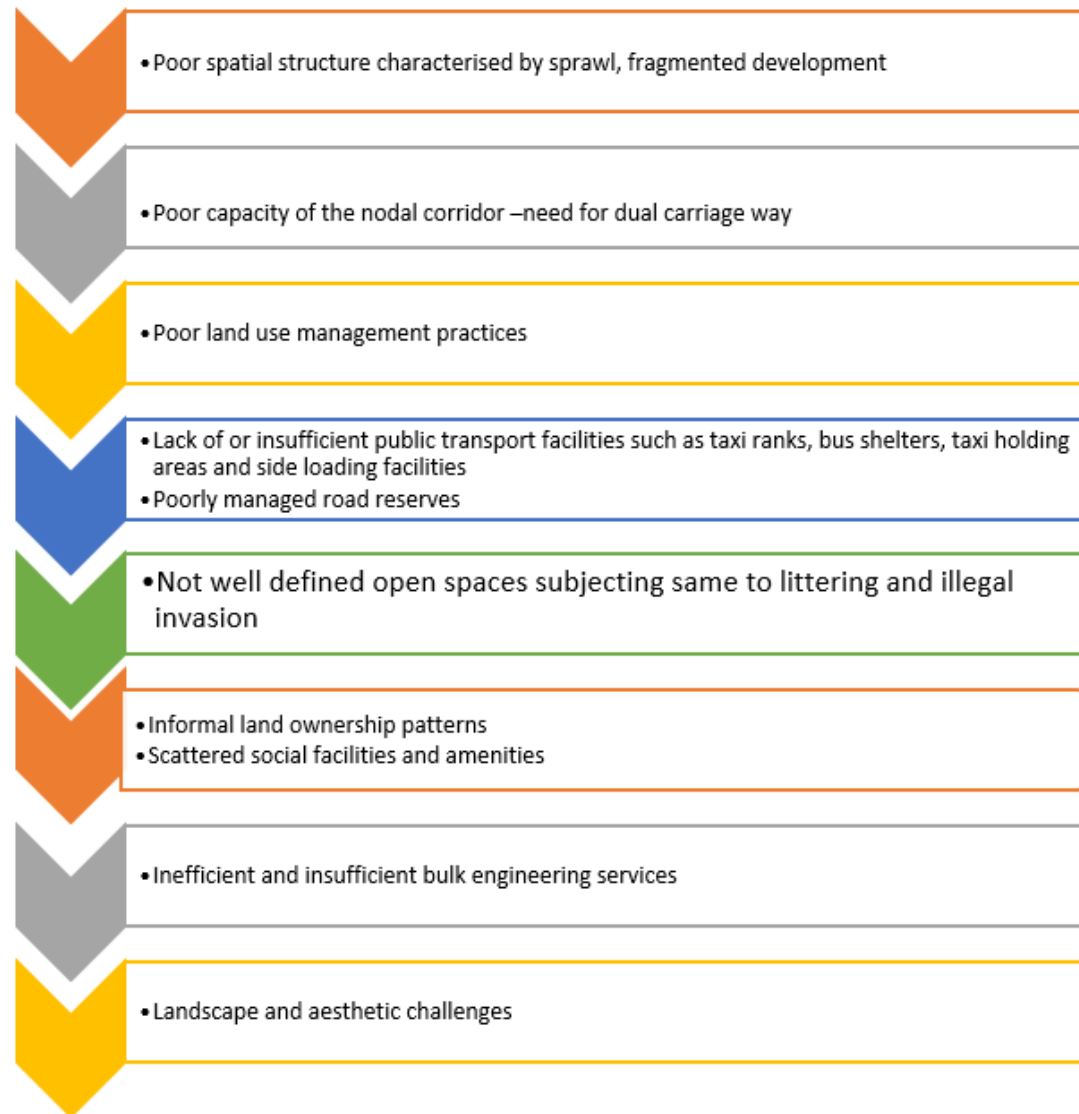


Figure 14: Spatial constraints for Apel Cross node

Spatial opportunities

The following have been identified as high level spatial opportunities for Apel Cross node:

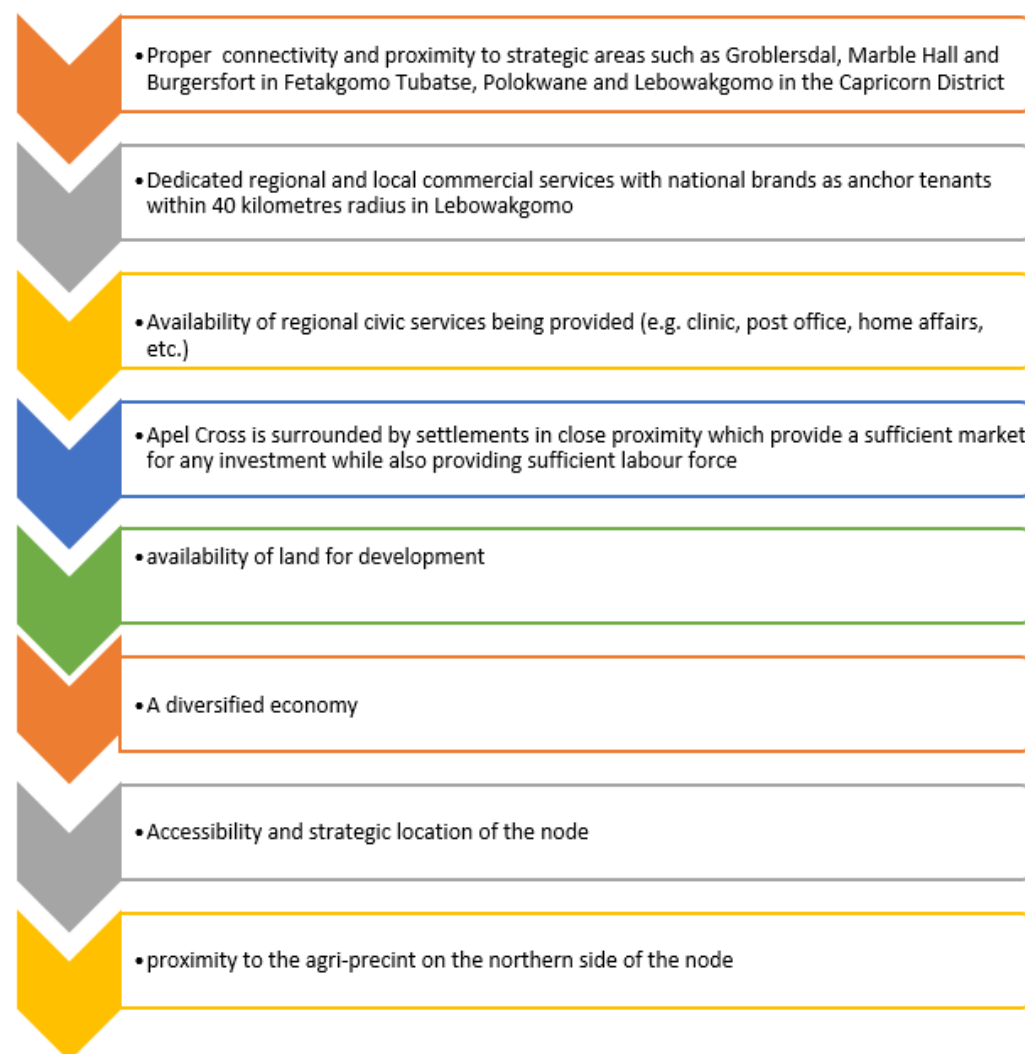
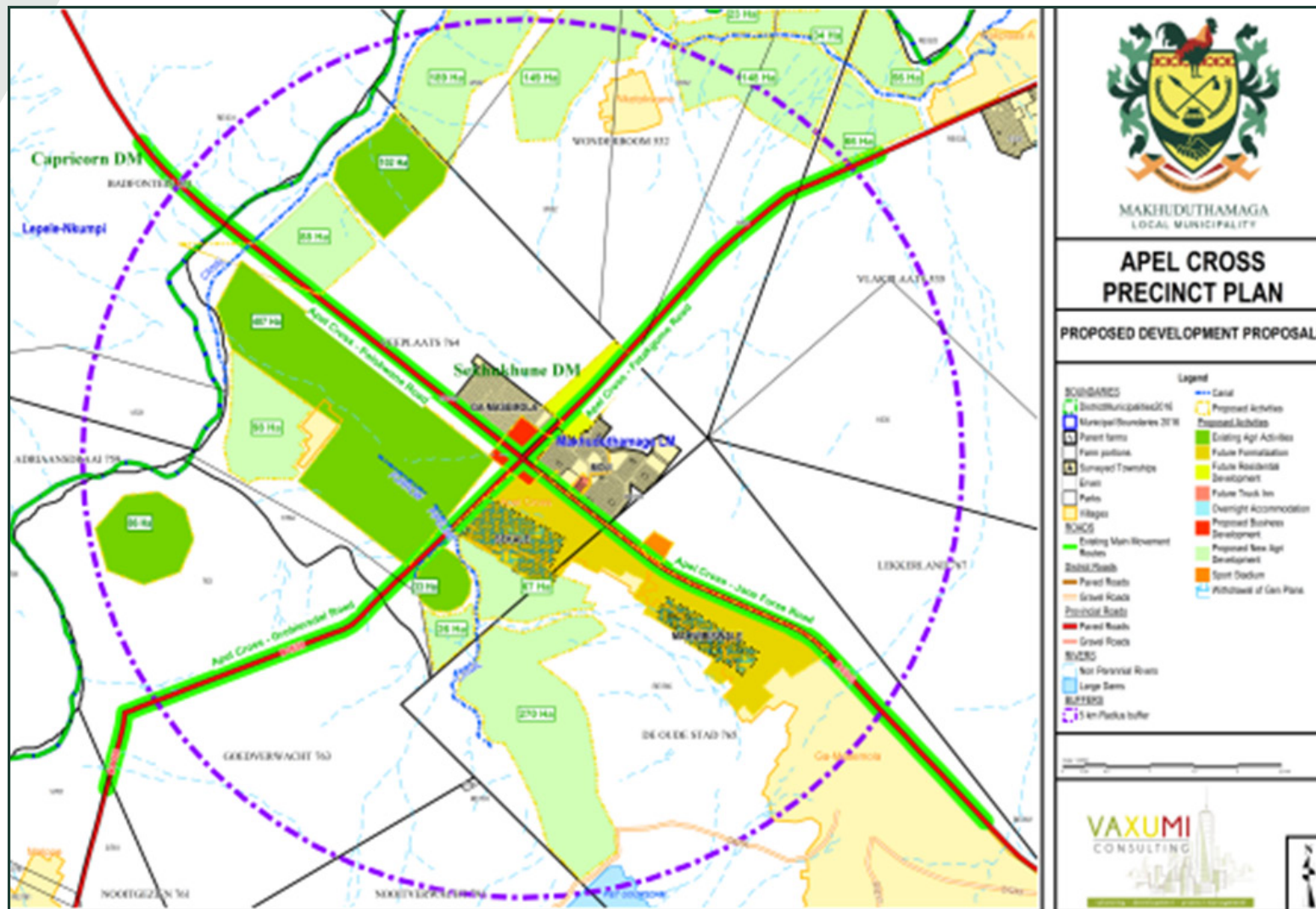


Figure 15: Spatial opportunities for Apel Cross node



Map 31: Apel Cross composite precinct plan

6.4 SCHOONOORD NODAL POINT SPATIAL TARGETING PROPOSALS

It is noted that Precinct plans are in place for this node and thus there is no need for development of another one. What is more important is the implementation of programmes and projects identified in the precinct plan

a) Spatial Structure and Movement Network

Schoonoord node is located approximately 12 kilometres north east of Jane Furse node and can be accessed through the D2219 and D4190 via Magnets Heights.

Four farms constitute the Schoonoord node, namely Farm 326, KT – Remaining Extent, Portion 25 - 30 and 32. The area has villages namely: Ga Masengwane and Ga Seopela.

Farm Avoutuur 814, KS – Remaining Extent. Includes a surveyed township with residential sites and public spaces named Dihlabaneng.

Farm Diamand 845, KS – Remaining Extent, Portion 5 – 7. This farm portion includes a village called Tshehlwaneng

Farm 846, KS – Remaining Extent. (source Schoonoord precinct plan)

Dominant land uses for the node are residential, commercial

(informal and formal), institutional in the form of government services such as SAPS police station, Magistrate offices (Department of Justice and Constitutional Development), Makhuduthamaga DLTC, schools, health facilities, department of education administrative offices, library, indoor sports complex and religious centres (churches). The spatial structure indicates low density development characterised by fragmentation and sprawl.

According to the Schoonoord precinct plan, MLM IDP 2016-2021 and Makhuduthamaga MSDF 2015, the main challenges affecting this node are as follows:

The main challenges faced at Schoonoord are as follows:

- Lack of environmental management;
- Sprawled development;
- Communal land use management;
- Lack of adequate water and sanitation infrastructure;
- Unresolved and competing land claims in the area threaten to destabilize future development;
- Multiple custodianship of state land;
- Illegal occupation of land;

Movement networks

The D2219 north east bound from Jane Furse connects with the D4190 at Magnets Heights to the Schoonoord node. It is the provincial D2219 that also connects Schoonoord to the Steel-poort and Burgersfort in Fetakgomo Tubatse via the R555 road. The intersection of the D2219 and D4190 creates a hive of activities and create a good spine for commercial, industrial and related developments in the node

Based on the intensity of economic activities on the D2219 road and the junction at road D4190 at Magnets Height in particular, the following challenges are encountered:

- heavy traffic congestions which disrupt the free and smooth flow of traffic and thereby results in delays of movements and loss of economies of scale
- encroachments and illegal land allocation on the road reserves
- safety and health challenges
- Potential criminal activities on the corridor
- disruption of the aesthetic appeal of the area.

This MSDF proposes the following transport interventions for Schoonoord node:

- Widening of D2219 to create a dual carriage way to improve traffic mobility within the activity corridor that also passes through the Schoonoord node
 - Provision of kerbs to curb illegal parking
 - Provision of parking bays where appropriate, especially at the Magnets Heights retail cen-tre and also along the government precinct of Sekhukhune (Schoonoord)
 - Paving of all internal streets connecting to the Schoonoord node and also all internal streets within the node
 - Provision of bus and taxi shelters for passengers at strategic points
 - Pedestrian sidewalks and cycling routes
- Public Transport:

As a node with a variety of government and social Services, Schoonoord attract a number of people in search of such services. As a result, the node is a destination of compulsion nd will attract

all people from all walks of life. Commuting becomes inevitable. Schoonoord is served by public transport in the form of busses and taxis which connects to local settlements and regional settlements outside the MLM to areas such as Polokwane, Tu-batse, Mpumalanga and Gauteng. There are formal and informal taxi ranks in the node, however, the provision of taxi ranks is not sufficient to meet the demands of the sector.

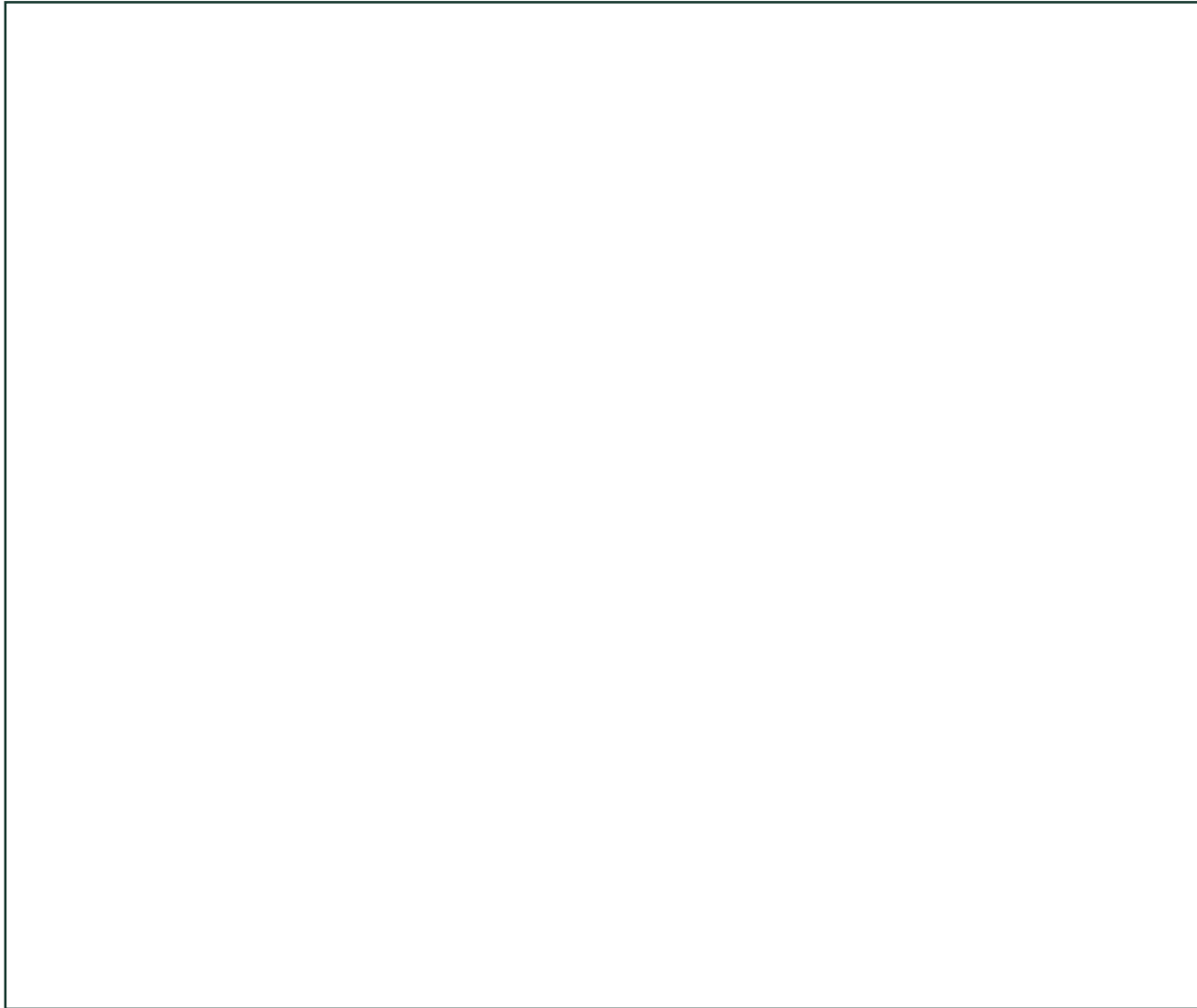
The existing taxi rank is located in close proximity to the existing social facilities such as the magistrate's court, police station and SASSA offices. Pedestrian facilities including walkways, traffic cooling measures and street furniture need to be provided to link the rank with these public amenities.

The taxi rank facility also has to be upgraded into a multimodal facility to accommodate buses, mini-bus taxis, metred taxis and other modes of public transportation.

b) Land ownership and Land tenure status

According to the Integrated Development Plan (2016-2021), Makhuduthamaga MSDF (2015), Makhuduthamaga LED Strategy and Jane Furse Precinct Plan (2020), Schoonoord node is situated on land covering four farms, viz,

- ☐ Farm 326, KT – Remaining Extent, Portion 25 - 30 and 32.
- ☐ Farm Avoutuur 814, KS – Remaining Extent
- ☐ Farm Diamand 845, KS – Remaining Extent, Portion 5 – 7.
- ☐ Farm 846, KS – Remaining Extent



Map 32: *Schoonoord locality map*

In terms of the registered ownership of the land where Schoonoord node is situated, the South African government is the registered owners.

Like the majority of settlements in MLM, Schoonoord node and its surrounding townships and villages fall under the custodianship of traditional authorities. Like other nodes and settlements in MLM,

another challenge which has a huge bearing on the ownership and tenure status is the multiple and conflicting land claims on the same land parcels constituting Jane Furse town. This ownership and tenure uncertainty does not bode well for the sustainable development of the area through direct and indirect investments in the area.

Farm name	Owner	Claimant
Remaining Extent of the Farm 326, KS;	National Government of South Africa	Phokwane Tribe KRP1895; Malaka Tribe KRP 10289; Bakone Ba Mmanakana KRP 11722
Portion 25 – 30 and 32 of Farm 326, KT	Not Registered	Kone-Maloma Traditional Authority KRP1524
Remaining Extent of Farm 814, KS	National Government of South Africa	Mangangeng Tribe KRP 2542; Maila ML KRP 1287; Batau Ba Mashite Community KRP 746
Remaining Extent of Farm 845, KS	National Government of South Africa	Manganeng Tribe 2542 / Mogashoa ME (Mogaswa-Manamane Tribal Authority) 18512497
Remaining Extent of the Farm 846, KS.	Not registered	Manganeng Tribe 2542 / Mogashoa ME (Mogaswa-Manamane Tribal Authority) 18512497currently)

Table 16: Competing land claims affecting Schoonoord node (source: Schoonoord Precinct Plan 2020)

c) **Engineering services**

In terms of engineering services for Phokoane node the following is the current reality:

- **Energy provision**

Schoonoord has a fairly sufficient supply of electricity. ESKOM is the authority responsible for electricity in the area. What is lacking in the node, as is the case with the rest of Makhuduth-amaga settlements, is migration from reliance on grid energy to alternative energy provision in the form of green energy forms such as solar, wind and gas energy.

Migration to alternative energy supply will achieve two objectives. First it will provide sustainable energy supply given capacity challenges encountered currently through regular load shedding from the power utility. Secondly, green energy will promote environmental sustainability as it will contribute to a reduction in the carbon footprint.

- **Bulk water and sewer**

According to the MLM IDP and the Precinct Plan for Schoonoord, the provision of water and sanitation is the responsibility of the Sekhukhune District Municipality. There are backlogs on the provision of water and sanitation in the node. The situation is worsened by capacity constraints of the existing network. There is limited waterborne sewerage capacity in the node mainly for

government departments in the area while the rest of the node depends on pit latrines. Based on the rapid growth of the node, there should be readiness in terms of augmenting the capacity of available engineering services as the projected huge influx of people in need of opportunities to the node creates challenges on the already strained infrastructure.

- **Solid waste management**

The MLM is responsible for refuse removal and waste management for the Jane Furse node. According to the MLM IDP (2016-2021) the refuse removal service for the node is collected weekly. There is no licenced landfill site for the node but reliance is on the Jane Furse node which is about 12 kilometres from Schoonoord.

The chapter of this framework on the spatial analysis of the current reality reflects gaps that work against sustainable and efficient provision of full engineering services for the entire town in a seamless manner.

This SDF proposes a full audit of the engineering services for the current use as well as future demand so that attracted investments will not be frustrated by unsustainable service provision. For that to be attained, the municipal Economic Development and Planning, and the Infrastructure Development (Technical Services) Departments must develop full infrastructure Master Plans that will be able to provide for current and future developments for the Phokwane node in a sustainable manner.

Those Master Plans must be coupled with the implementation of an effective GIS system so that future planning and implementation of projects can be done with readily available information.

The municipality should prioritize the provision of alternative sources of energy which include green energy where the Phokwane node can be energized on solar, wind and other forms of energy other than coal driven energy as is the practice in most towns where robots and other energy driven equipment have been removed from the grid

- **Community Facilities**

This node hosts community and social services in the form of educational facilities, SAPS police station, Magistrate offices (Department of Justice and Constitutional Development), Makhuduthamaga DLTC, schools, health facilities, department of education administrative offices library, rudimentary sports and rec-

reation facilities, post office, station for Department of Agriculture, taxi rank, cemetery and religious institutions such as churches.

e) Summary proposals for Schoonoord node

The precinct plan for Schoonoord proposes developments of various uses as identified in the strategic thrusts of that plan. Key amongst those identified uses are the residential one as an enhancement of the already residential footprint of the node, mixed land use development along the R579 and D4190 route.

Like the Jane Furse and Phokoane nodes supra, this plan proposes the development of light and heavy industrial use on the western part of the precinct, an agricultural zone, sports and recreation zone and low density residential development. Map 33 reflects the identified composite map for the node.

d) Spatial constraints and opportunities

The SDF has identified the following as high level spatial constraints for Schoonoord node:



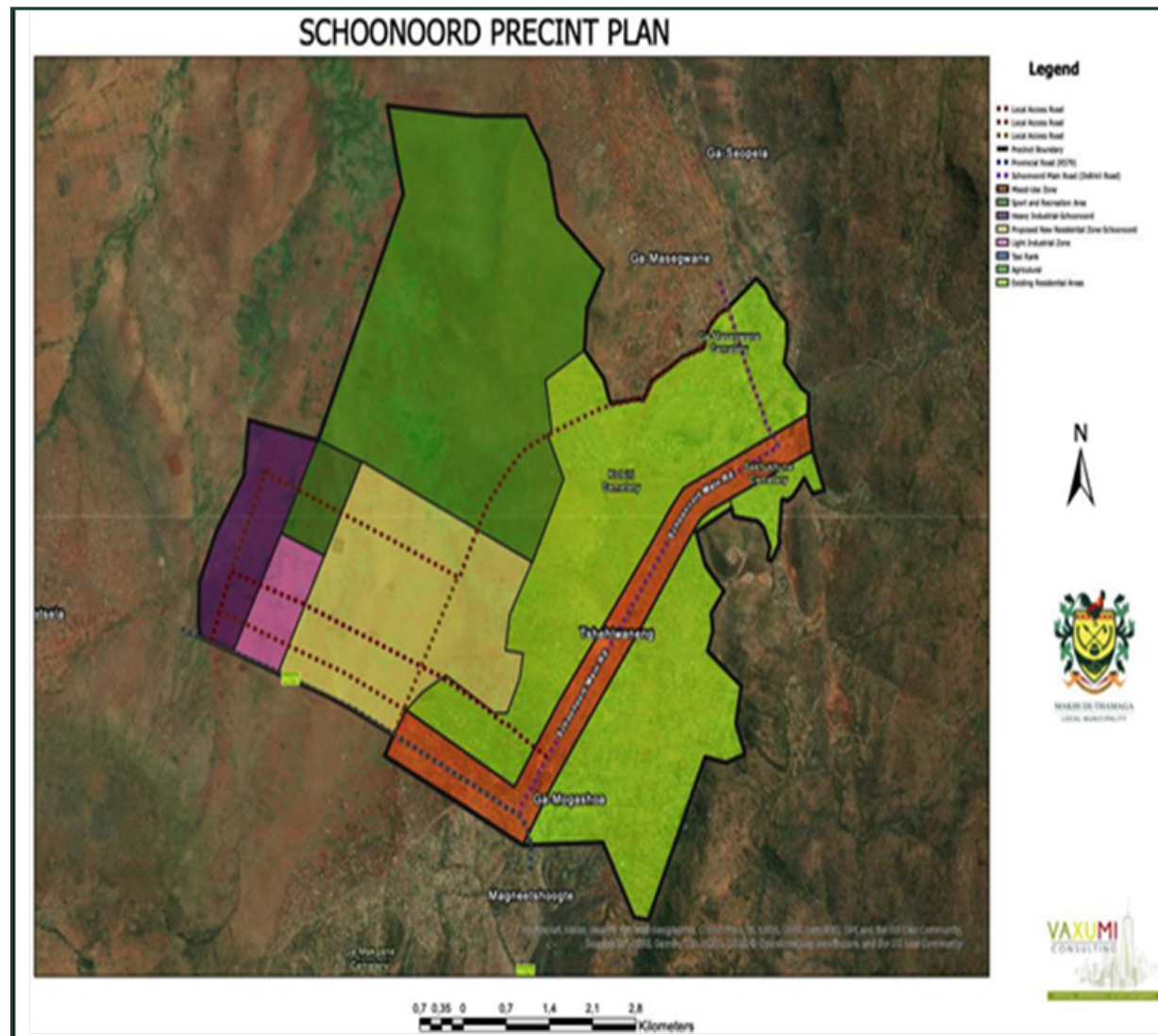
Figure 16: Spatial constraints for Schoonoord node

Spatial opportunities

The following have been identified as high level spatial opportunities for Schoonoord node:



Figure 17: Spatial opportunities for Schoonoord node



Map 33: Schoonoord precinct plan composite map

6.5 MORATIWA NODAL POINT SPATIAL TARGETING PROPOSALS

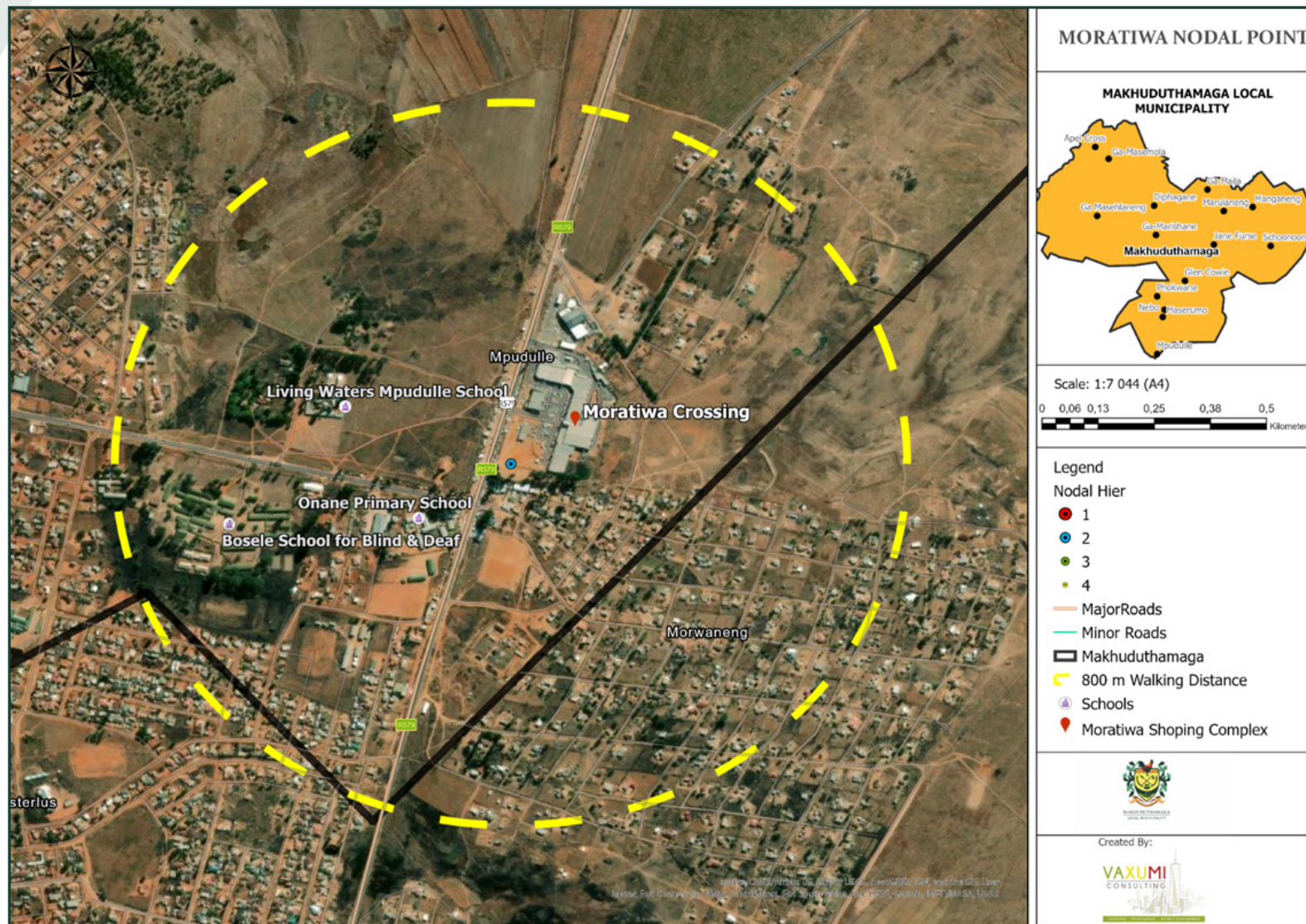
This is a new node identified in terms of this revised MSDF. There is no precinct plan in place for the Moratiwa node and as a result, the identification of a new node provides an opportunity for the Makhuduthamaga Local Municipality to develop fresh new development plans for the node. This is done taking into account the development and services that are already in that new node.



Map 35: Moratiwa Nodal Point



Moratiwa Nodal Point



Map 36: Moratiwa locality map

a) Spatial Structure and Movement Network

As discussed in chapter 2 above, Moratiwa is located on the southern tip of the Makhuduth-amaga Municipality en route to Stofberg and Elias Motsoaledi Local Municipality on the busy intersection of R579 and R574.

This node offers a modern retail establishment anchored by national brands such as Spar, Cashbuild and national banking services. The retail centre also boasts the presence of a modern taxi rank facility. There is also the presence of the informal economy in the area where informal traders have lined up their stalls along the R579 route in front of the new modern retail outlet, Moratiwa shopping complex. The presence of the informal traders along the R579 route also creates safety challenges in the sense that most of them have built their makeshift structures on the road reserve.

The node supports and is also supported by the presence of government and non-government services comprising of a special school for the blind and deaf (Bosele), a private school (Living Waters), Circuit offices of the Department of Education and a health centre (clinic).

Prospects for expanding on the retail and SMME development for the area can be supported by the availability of vacant land in the area as already indicated through illustrations in chapter 2 above. R579 also serves as the major street of the Moratiwa node and as

a result constitutes the major corridor of activities in the node. Based on the intensity of economic activities on that road, the following challenges are encountered:

- heavy traffic congestions which disrupt the free and smooth flow of traffic and thereby results in delays of movements and loss of economies of scale
- encroachments and illegal land allocation on the road reserves
- safety and health challenges
- Potential criminal activities on the corridor
- disruption of the aesthetic appeal of the area.

This SDF proposes the following transport interventions for Moratiwa node:

- Widening of R579 to create a dual carriage way to improve traffic mobility within the node
- Provision of kerbs to curb illegal parking
- Reservation and protection of the R574 road and its reserves for mixed land development anchored by a commercial sector on the activity spine.
- Provision of parking bays where appropriate
- Provision of bus and taxi shelters for passengers at strategic points
- Pedestrian sidewalks and cycling routes
- Upgrading of the existing public transport facility to cater for both the existing and planned commercial activities

Public Transport:

Moratiwa is served by public transport in the form taxis which connects to local settlements and regional settlements outside the MLM to areas such as Elias Motsoaledi, Ephraim Mogale and neighbouring settlements of Jane Furse. Long distance public transport arrangements to settlements such as Tubatse, Mpumalanga and Gauteng are only coordinated through the Jane Furse node. The local areas are being serviced by metred taxis which currently do not have dedicated drop on/off facilities.

There are formal and informal taxi ranks in the node, however, the provision of taxi ranks is not sufficient to meet the demands of the sector. The existing taxi rank has to be upgraded to cater for the existing and future developments. This facility has to be transformed into a multimodal facility to cater for other modes of transportation.

This SDF proposes the undertaking of a comprehensive traffic impact study of the node to identify and implement applicable traffic management measures and to enhance pedestrian movement. Pedestrian safety has also has to be improved and enhanced by the provision of sidewalks, street furniture including street lighting at night.

Land ownership and Land tenure status
According to the Integrated Development Plan (2016-2021), Makhuduthamaga MSDP (2015), Makhuduthamaga LED Strategy, Moratiwa node is situated on land covering two farms, viz,

In terms of the registered ownership of the land where the node is situated, the land ownership varies from private to government.

b) Engineering services and Community facilities

In terms of engineering services for Jane Furse node the following is the current reality:

- **Energy provision**

Like other nodes and settlements within MLM, Moratiwa node has a fairly sufficient supply of electricity. ESKOM is the authority responsible for electricity in the area. What is lacking in the node, as is the case with the rest of Makhuduthamaga settlements, is migration from reliance on grid energy to alternative energy provision in the form of green energy forms such as solar, wind and gas energy. Migration to alternative energy supply will achieve two objectives. First it will provide sustainable energy supply given capacity challenges encountered currently through regular load shedding from the power utility. Secondly, green energy will promote environmental sustainability as it will contribute to a reduction in the carbon foot print.

- **Bulk water and sewer**

According to the MLM IDP, the provision of water and sanitation is the responsibility of the Sekhukhune District Municipality. The retail development where Moratiwa node is located has its own internal water reticulation and sewer services. There is insufficient supply of water and waste water for the rest of the households and institutions within the Moratiwa node

Figure 16: Spatial constraints for Schoonoord node

Solid waste management

The MLM is responsible for refuse removal and waste management for the Moratiwa node. According to the MLM IDP (2016-2021) the refuse removal service for the node is collected weekly. There is no dedicated licenced landfill site for the node. The node is serviced by Jane Furse licenced land fill site.

However, the state of littering and dereliction of waste in the node, especially waste generated at the intersection demonstrates a dire state of the services in the sector and the MLM integrated waste management strategy should address same with the urgency required.

As with other nodes in this report, the chapter of this framework on the spatial analysis of the current reality reflects gaps that work against sustainable and efficient provision of full engineering services for this identified new node in a seamless manner. This SDF proposes a full audit of the engineering services for the current use as well as future demand so that attracted investments will not be frustrated by unsustainable service provision.

For that to be attained, the municipal Economic Development and Planning, and the Infrastructure Development (Technical Services) Departments must develop full infrastructure Master Plans that will be able to provide for current and future developments for the Moratiwa node in a sustainable manner.

Those Master Plans must be coupled with the implementation

of an effective GIS system so that future planning and implementation of projects can be done with readily available information.

The municipality should prioritize the provision of alternative sources of energy which include green energy where the town can be energized on solar, wind and other forms of energy other than coal driven energy as is the practice in most towns where robots and other energy driven equipment have been removed from the grid.

Provision of a waste transfer station need to be provided to address the waste and refuse management challenge in the node.

- **Community Facilities**

Moratiwa node hosts a number of social and community facilities that provide a range of services to communities within and outside its sphere of influence. Such community facilities include the department of education circuit offices, a health centre (clinic), and educational institutions such as a special school for the deaf and blind (Bosele), a private secondary school (Living Waters), informal traders' facilities, modern taxi rank hosted in the Moratiwa retail centre.

These community facilities and government services have a mutually symbiotic relationship with the existing retail facilities in the node.

It is proposed that access to all these community facilities should be facilitated with ease by providing for various modes of transport including public transport facilities such as bus shelters and semi taxi stations.

c) Spatial constraints and opportunities

Spatial constraints

The project team has identified the following as high level spatial constraints for Moratiwa node:



Figure : Spatial constraints for Moratiwa node

Spatial opportunities

The following have been identified as high level spatial opportunities for Moratiwa node:

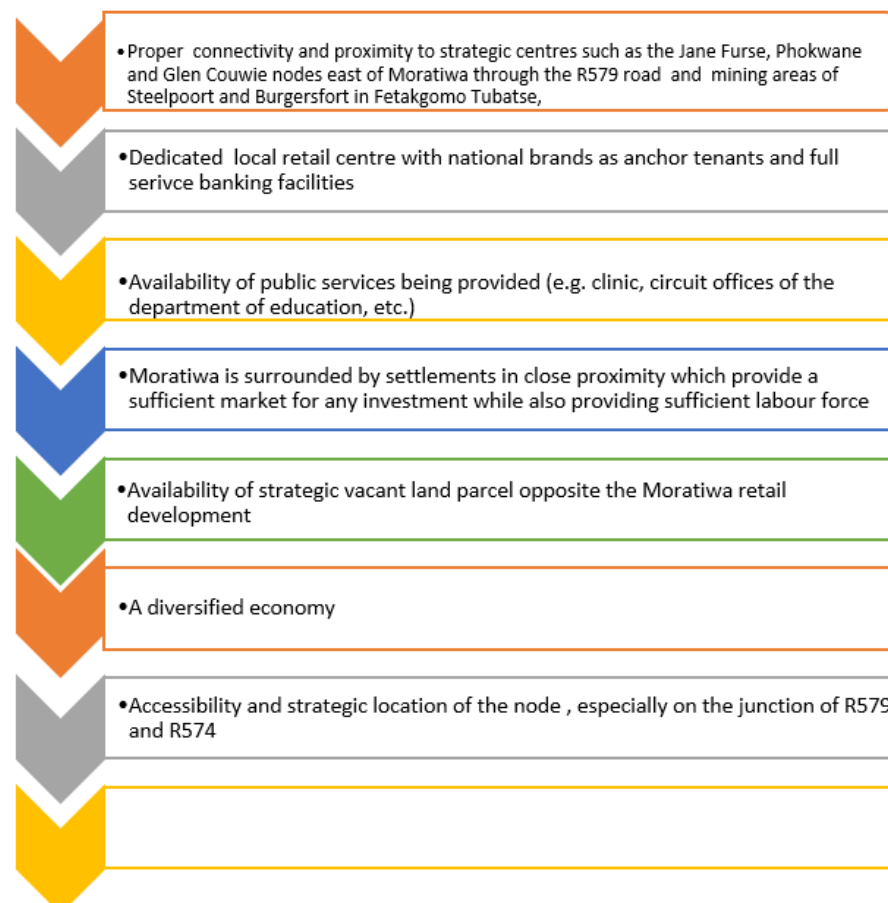


Figure : Spatial opportunities for Moratiwa

d) General proposals for Moratiwa node

The MLM must prioritize, as a matter of urgency, the development of a precinct plan for the Moratiwa node.

Without pre-empting the contents of the Moratiwa proposed precinct plan, this revised MSDF proposes the following:

- Mixed use development anchored by the retail sector along the R579 road (activity corridor) and at the junction of R574 –This should culminate in the expansion of the retail node east of Cash build hardware in the node.
- Development of a mini civic precinct to complement the already established government services in the node. Such government services should include Home Affairs offices, SASSA and Social Development offices and related. The Thusong Service Centre model can help achieve that.

This revised MSDF further proposes the following for Moratiwa node

- Provision of place making and cultural identity such as legible gateway signs, street names and managed public places and street scape;
- Proper maintenance of public open spaces, road reserves and vacant land;
- Due to the accelerated demand for development in this node this SDF further proposes the application of shortened land use Development Procedures and flexibility in the amend-ment of land use schemes. This will support the spatial principle of efficiency and good administration.

- Establishment of Green Committees to deal with the aspects of environmental management and cleanliness. Such committee can also initiate competitions such as the cleanest street or institution to promote cleanliness in the node.

a) Spatial Structure and Movement Network

Nebo Local Service Point is located west of the Phokwane node and east of the newly identified node of Moratiwa.

Nebo Local Service point falls within the sphere of influence of the R579 activity corridor. The settlement is located north of the R579 road and is connected to the R579 via secondary routes (Nebo road) that form a loop that transverses through the area via the traffic testing and licensing station and Nebo Home Affairs offices. Access has also been made easier through the tarring of the secondary access route (Nebo road) that connects the Nebo Local Service point to the rest of the Makhuduthamaga settlements towards Jane Furse via Phokoane and Glen Couwie eastwards and towards Moratiwa and the rest of Elias Motsoaledi and Ephraim Mogale Municipalities south east wards.

The node supports and is also supported by the presence of government and non-government services comprising of a Municipal Traffic and Licensing station, Home Affairs offices, SASSA and Social Development Offices, Department of Agriculture extension offices, Nebo SAPS station, Nebo Magistrate Court,

as well as primary and secondary schools in the vicinity. The availability of such a range of government services in close proximity to one another is a clear indication that the previous Lebowa government was intent on developing some sort of a government precinct and maximise on the economies of scale for the Nebo Local Service point.

This MSDF proposes the following transport interventions for Nebo local service point node:

- Widening of R579 to create a dual carriage way to improve traffic mobility within the node
 - Provision of kerbs to curb illegal parking
 - Provision of bus and taxi shelters for passengers at strategic points especially next to the magistrates offices, SASSA offices, Home Affairs and Municipal Traffic Station
- Pedestrian sidewalks and cycling lanes providing linkages between the various places of interest across the node.

Public Transport:

According to the CSIR guidelines for human settlement planning and design (2011) Municipalities have the legal authority and regulatory instruments to enforce urban development that is supportive of public transport. In terms of integrated development plans, it is important that development proposals should be reviewed in the light of traffic generation, potential public transport ridership, and ease of operation for public transport.

The existence of public and social services within the local service point of Nebo attracts a number of people in the centre in need of

must have public services. Based on the socio-economic conditions of the MLM communities, many residents and visitors to the Nebo local service point rely on public transport. Nebo is served by public transport in the form of local and regional taxis which connects to local settlements and regional settlements.

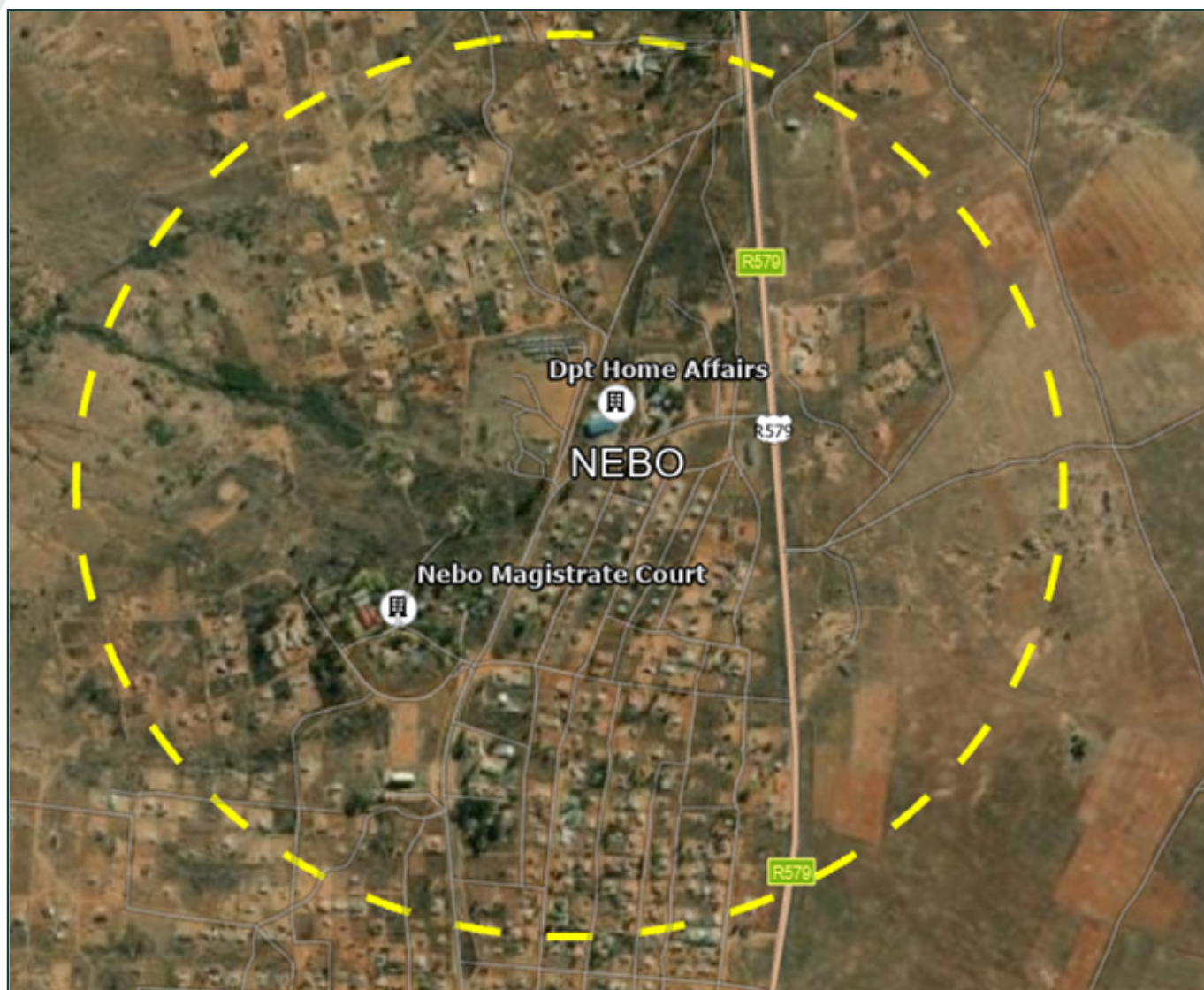
There are formal and informal taxi ranks in the node, however, the provision of taxi ranks is not sufficient to meet the demands of the sector. However, there is no formal standard taxi facilities in the Nebo local service point. The service centre does not have standard taxis and bus shelters to protect commuters from harsh weather conditions.

Nebo stands to benefit from the proposed upgrading of the R579 road into a dual carriage way with associated and dedicated lane for bus rapid transport as it will make mobility options available to residents and visitors to the area.

6.6 NEBO LOCAL SERVICE POINT

This MSDF proposes the identification of Nebo as a local Service Point due to the existence of socio-economic services and centres in the area. As a newly identified area of strategic importance, Nebo has no precinct plan in place and as a result, the identification of a new node provides an opportunity for the Makhuduthamaga Local Municipality to develop fresh new development plans for the node.

This is done taking into account the development and services that are already in that new node.



Map 37: *Nebo Locality*

a) Spatial Structure and Movement Network

Nebo Local Service Point is located west of the Phokwane node and east of the newly identified node of Moratiwa.

Nebo Local Service point falls within the sphere of influence of the R579 activity corridor. The settlement is located north of the R579 road and is connected to the R579 via secondary routes (Nebo road) that form a loop that transverses through the area via the traffic testing and licensing station and Nebo Home Affairs offices. Access has also been made easier through the tarring of the secondary access route (Nebo road) that connects the Nebo Local Service point to the rest of the Makhuduthamaga settlements towards Jane Furse via Phokoane and Glen Couwie eastwards and towards Moratiwa and the rest of Elias Motsoaledi and Ephraim Mogale Municipalities south east wards.

The node supports and is also supported by the presence of government and non-government services comprising of a Municipal Traffic and Licensing station, Home Affairs offices, SASSA and Social Development Offices, Department of Agriculture extension offices, Nebo SAPS station, Nebo Magistrate Court, as well as primary and secondary schools in the vicinity.

The availability of such a range of government services in close proximity to one another is a clear indication that the previous Lebowa government was intent on developing some sort of a government precinct and maximise on the economies of scale for the Nebo Local Service point.

This MSDP proposes the following transport interventions for Nebo local service point node:

- Widening of R579 to create a dual carriage way to improve traffic mobility within the node
 - Provision of kerbs to curb illegal parking
 - Provision of bus and taxi shelters for passengers at strategic points especially next to the magistrates offices, SASSA offices, Home Affairs and Municipal Traffic Station
- Pedestrian sidewalks and cycling lanes providing linkages between the various places of interest across the node.

Public Transport:

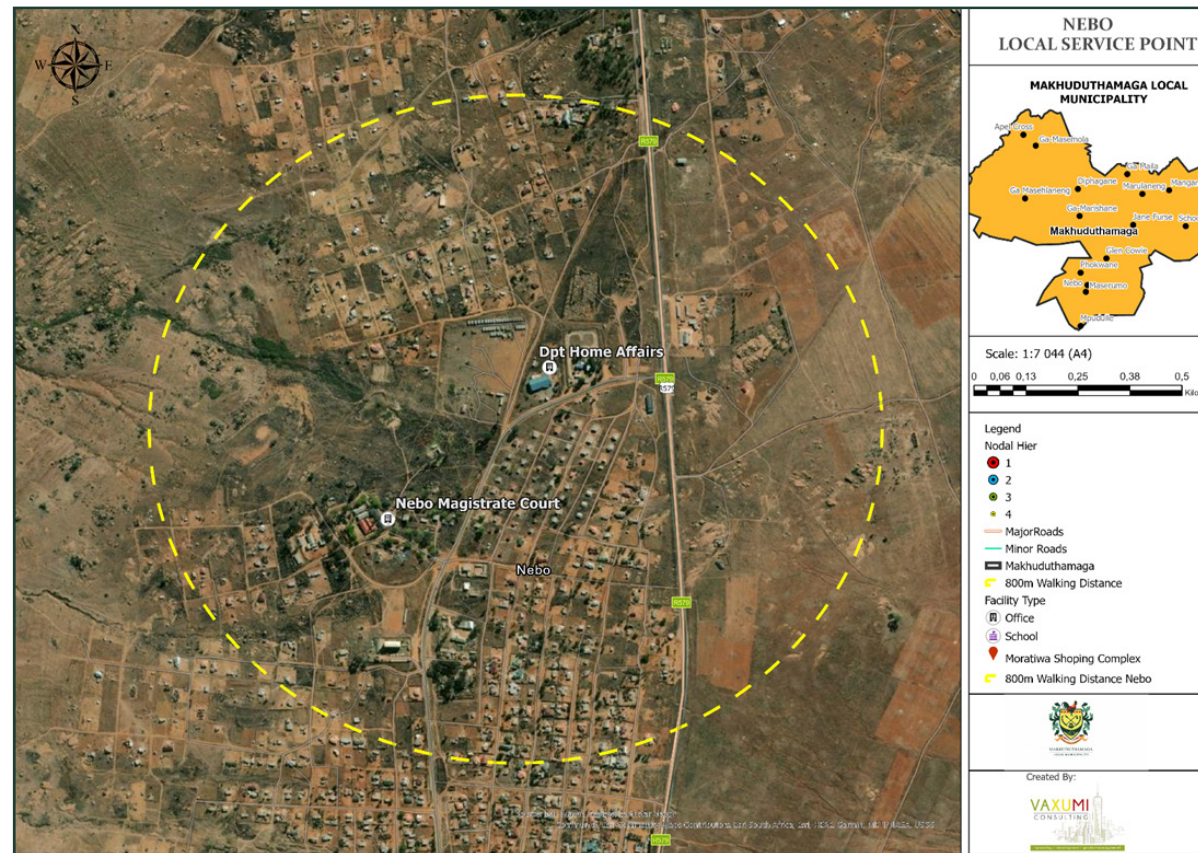
According to the CSIR guidelines for human settlement planning and design (2011) Municipalities have the legal authority and regulatory instruments to enforce urban development that is supportive of public transport. In terms of integrated development plans, it is important that development proposals should be reviewed in the light of traffic generation, potential public transport ridership, and ease of operation for public transport.

The existence of public and social services within the local service point of Nebo attracts a number of people in the centre in need of must have public services. Based on the socio-economic conditions of the MLM communities, many residents and visitors to the Nebo local service point rely on public transport. Nebo is served by public transport in the form of local and regional taxis which connects to local settlements and regional settlements.

There are formal and informal taxi ranks in the node, however,

the provision of taxi ranks is not sufficient to meet the demands of the sector. However, there is no formal standard taxi facilities in the Nebo local service point. The service centre does not have standard taxis and bus shelters to protect commuters from harsh weather conditions.

Nebo stands to benefit from the proposed upgrading of the R579 road into a dual carriage way with associated and dedicated lane for bus rapid transport as it will make mobility options available to residents and visitors to the area.



Map 38: Nebo Locality

- Land ownership and Land tenure status

In terms of the registered ownership of the land where the Nebo Local Service Point is located, the South African government is the registered owners.

However, the town and its surrounding townships and villages fall under the custodianship of traditional authorities. Another challenge which has a huge bearing on the ownership and tenure status is the multiple and conflicting land claims on the same land parcels constituting Jane Furse town. This ownership and tenure uncertainty does not bode well for the sustainable development of the area through direct and indirect investments in the area.

b) Engineering services and Community facilities

In terms of engineering services for Jane Furse node the following is the current reality:

- **Energy provision**

Like other nodes and settlements within MLM, Nebo Local Service point has a fairly sufficient supply of electricity. ESKOM is the authority responsible for electricity in the area. What is lacking in the node, as is the case with the rest of Makhuduthamaga settlements, is migration from reliance on grid energy to alternative energy provision in the form of green energy forms such as solar, wind and gas energy. Migration to alternative energy supply will achieve two objectives. First it will provide sustainable

energy supply given capacity challenges encountered currently through regular load shedding from the power utility. Secondly, green energy will promote environmental sustainability as it will contribute to a reduction in the carbon footprint.

- **Bulk water and sewer**

According to the MLM IDP, the provision of water and sanitation is the responsibility of the Sekhukhune District Municipality. Nebo has available infrastructure for both sewer and water for the government offices as well as for the residential component comprising of government four roomed dormitories. However, such infrastructure has aged and will need to be replaced through comprehensive engineering services master plans. The rest of Nebo and surrounding communities within its sphere of influence have unreliable supply of potable water and no water borne sewerage system.

Solid waste management

The MLM is responsible for refuse removal and waste management for the Nebo Local Service point. According to the MLM IDP (2016-2021) the refuse removal service for the Nebo Local Service point is collected weekly for the government departments. There is no dedicated licensed landfill site for the node. Nebo is serviced by Jane Furse licensed landfill site.

Despite significant solid waste generation in Nebo, there is no evidence of initiatives aimed at achieving the three Rs of waste

treatment and management, viz, Reduce, Reuse and Recycle. This limits the economic opportunity that could potentially be created by waste recycling.

The chapter of this framework on the spatial analysis of the current reality reflects gaps that work against sustainable and efficient provision of full engineering services for the entire node in a seamless manner. This SDF proposes a full audit of the engineering services for the current use as well as future demand so that attracted investments will not be frustrated by unsustainable service provision.

For that to be attained, the municipal Economic Development and Planning, and the Infrastructure Development (Technical Services) Departments must develop full infrastructure Master Plans that will be able to provide for current and future developments for the Nebo local service point in a sustainable manner. Those Master Plans must be coupled with the implementation of an effective GIS system so that future planning and implementation of projects can be done with readily available information.

The municipality should prioritize the provision of alternative sources of energy which include green energy where the town can be energized on solar, wind and other forms of energy other than coal driven energy as is the practice in most towns where robots

and other energy driven equipment have been removed from the grid.

On the aspect of waste management, the MLM should introduce recycling businesses to reduce littering while also creating job opportunities for recycling individuals, enterprises and co-operatives within the community.

- **Community Facilities**

The existence of community facilities mainly established during the Lebowa administration is the one that draws large numbers of people to the local service point. The following community and/government services are in existence in the Nebo local service point:

- ☐ Nebo Magistrate offices
- ☐ MLM Traffic Testing and Licensing Station
- ☐ Department of Home Affairs offices
- ☐ SASSA and Social Development offices
- ☐ Department of Agriculture extension offices
- ☐ Department of Public Works, Roads and Infrastructure offices
- ☐ Primary and secondary schools
- ☐ Residential dormitory zone for government employees which is currently in a state of decay



Picture shows dilapidated government residential units opposite the municipal traffic and li-censing department in Nebo LSP.

It is proposed that access to all these community facilities should be facilitated with ease by providing for various modes of transport including public transport facilities such as bus shel-ters and semi taxi stations.

c) Spatial constraints and opportunities

Spatial constraints

The SDF has identified the following as high level spatial constraints for Nebo local service point:



Figure Spatial constraints for Nebo Local Service Point

Spatial opportunities

The following have been identified as high level spatial opportunities for Nebo local service point:

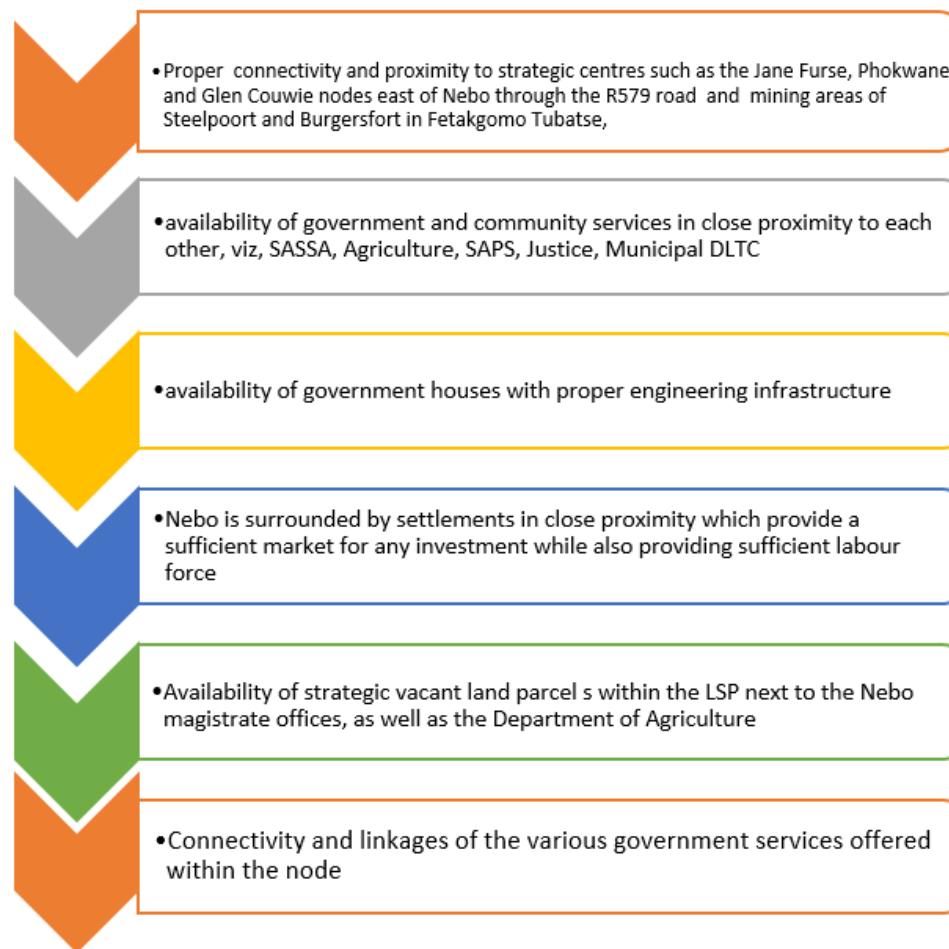


Figure: Spatial opportunities for Nebo Local Service Point

d) General proposals for Nebo local service point

This MSDF takes into cognisance that the MLM and SDM did not take advantage of the local service point of Nebo with its huge footprint of public sector facilities and amenities to put in into one of its key strategic areas of development in their IDPs and SDFs. This is despite the fact that Nebo provides public sector services for a large number of settlements outside the local service point's settlement footprints. It should be borne in mind that police services, judicial services, Home Affairs services and Traffic and Licensing services have a far reaching impact for surrounding areas outside Nebo, including even to other identified nodes such as Phokwane and Moratiwa.

The MLM must prioritize the development of a precinct plan for the Nebo Local Service point.

Without pre-empting the contents of the Nebo proposed precinct plan, this revised MSDF pro-poses the following:

- Infill development for all vacant land parcels in Nebo
- Renovation and proper management of government houses in Nebo into proper residen-tial units. This MSDF proposes that the government dormitory houses in Nebo be donated to the MLM which should appoint a team of experts to conduct conditions assessment of such houses, then come up with a refurbishment plan and implement same plan. Thereaf-ter, the MLM may consider renting them out, selling them to legible buyers or using the RDP

approach to award them to deserving and qualifying residents. If the MLM considers a Public Private Partnership approach to this government dormitories, it may even look in-to the feasibility of establishing a security/ gated village for those dormitories. A good business case may be pursued and it may explore the market from government employees tendering their services in the public sector facilities in the area.

- Provision of place making and cultural identity such as legible gateway signs, street names and managed public places and street scape;
- Proper maintenance of public open spaces, road reserves and vacant land;
- Due to the accelerated demand for development in this node this SDF further proposes the application of shortened land use Development Procedures and flexibility in the amendment of land use schemes. This will support the spatial principle of efficiency and good administration.
- Establishment of Green Committees to deal with the aspects of environmental manage-ment and cleanliness. Such committee can also initiate competitions such as the cleanest street or institution to promote cleanliness in the node.
- Provision of public transport facilities at strategic points in

Nebo. The convenient location of bus stops is significant, and they should be placed relative to building entrances. This aspect is as important to public transport customers as convenient parking is to car users.

6.7 R579 ACTIVITY CORRIDOR

Development corridors occur world-wide and are widely used as planning instruments to regulate economic and geographical space. According to Geyer et al (2017), the corridor concept has played an important part in planning thinking in South Africa for a long time. The first reference to the use of the concept as a planning instrument can be found in the National Physical Development Plan of South Africa published four decades ago.

Given the spatial and physical complexity of cities and regional settlements in South Africa, Geyer et al (2017) emphasize that particular morphological features are required for corridors to develop and that such features include nodes located along roads as communication axes giving access that is required for spatial development and growth along the communication lines. In essence, nodes manifest as concentrations of activities, containing a mixture of uses such as retail, office, entertainment, community facilities and even high rise residential development.

Geyer (1989) distinguishes three major fundamental attributes in relation to corridors:

- They must have a vibrant development node at both ends of a communication axis linking the two centres;
- They must be mutually dependent in order to support the flow of economic activities along the axis; and
- Interaction between the centres must create the potential for further development along the communication axes between the two centres.

This clearly demonstrates that a corridor is basically a confirmation of the complex process of interaction, be it social, economic, or administrative, between two or more primary development centres.

The National Department of Transport developed a policy document titled Moving South Africa Forward as part of using innovation in transport to create sustainable development in South Africa and beyond. The policy document also emphasized the roles of strategic networks and supporting networks as enablers for the success of the Moving South Africa forward policy.

According to the department, a “Strategic Network” forms the backbone of the system and consists of densely developed nodes and inter-connecting linear corridors which, as it concentrates travel demand in a focused area, leads to more riders/freight per vehicle and subsequent lower unit costs, while a “Supporting Network” that will not only feed into and distribute customers from the “Strategic Network”, but also connect it to areas outside the core network (source : National Department of Transport, 1998).

The National Department does not stop at the definition of components that will assist in moving the country forward using transport and roads networks and infrastructure as enablers, but goes on to provide ways of putting the conceptual vision in action. This it provides by directing that infrastructure and socio-economic investments, resources and high-density land uses should be targeted to such linear corridors and nodes. This should be supported by proper controls and incentives to avoid haphazard developments. Incentives may be in the form of rebates for investing in such nodes and corridors, while controls can be in the form of compliance targets and licensing controls.

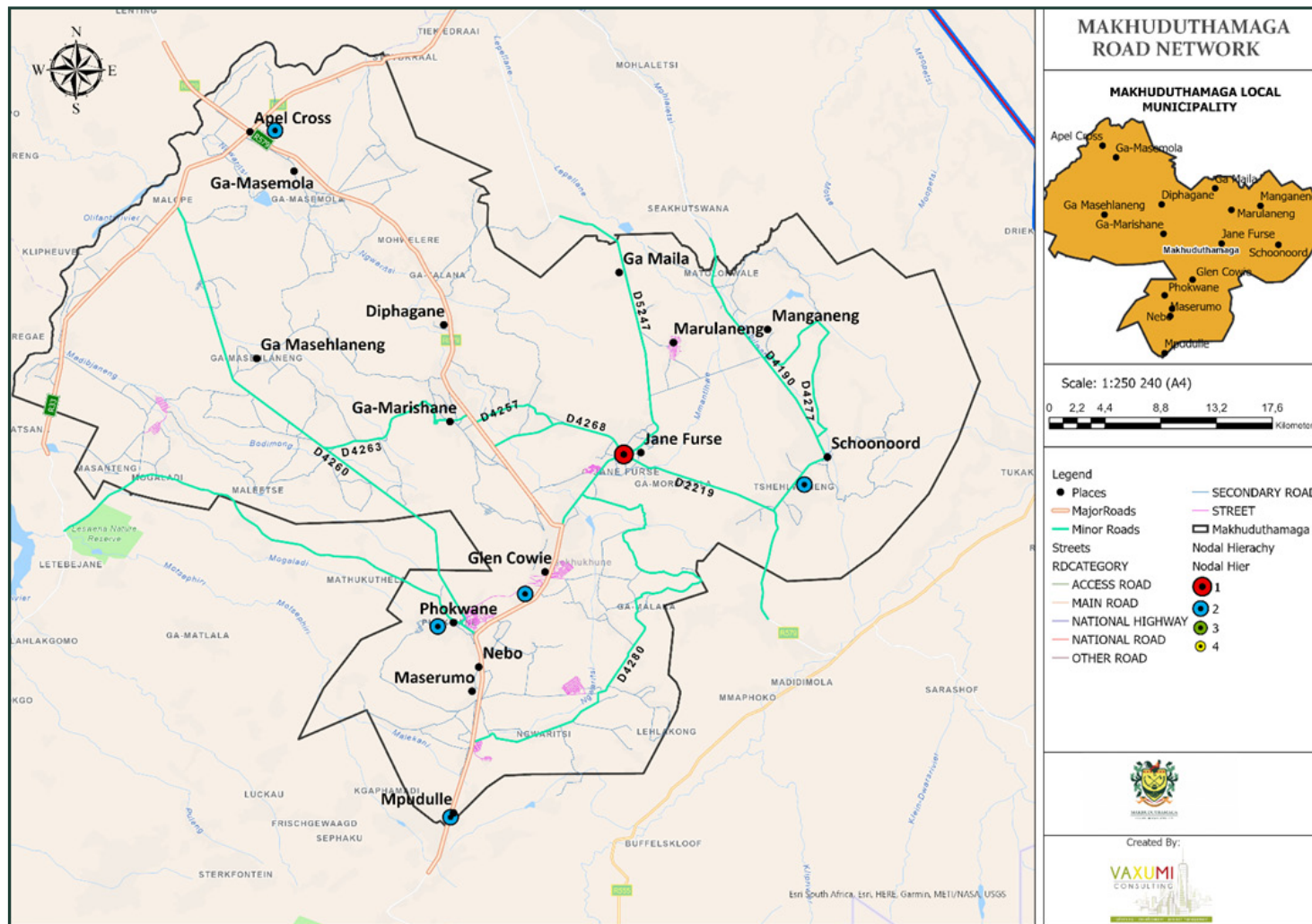
The R579 road which connects all the key nodes of the Makhuduthamaga Local Municipality provides a high intensity activity node, that if well managed and developed, can trigger the economic development of the MLM and neighbouring municipalities. This activity corridor provides connectivity between major nodes, high levels of mobility and accessibility and provides an opportunity for significant land uses and propensity for development as reflected in figure a and map 39 below.

The R579 corridor meets all the attributes mentioned by Geyer above for a sustainable corridor in the following ways:

- The R579 corridor has vibrant development nodes at both ends of a communication axis linking various centres. Four of the identified nodes within the MLM are connected by this activity spine, viz, Apel Cross, Jane Furse, Glen Cowie, Phokoane, Mor-

atiwa and the Nebo local service point. This study has indicated that all these nodes and local service point display elements of vibrancy and importance. Furthermore, an offshoot of the R579 (D2219) in the north-easterly direction connects the Jane Furse node to a vibrant node of Schoonoord via Magnet Heights. It is also worth mentioning that the R579 activity spine also connects nodes within MLM to those outside the municipal boundary such as Lebowakgomo and Polokwane in the northern side of the MLM;

- The nodes connected by the R597 corridor are mutually dependent on each other in order to support the flow of economic activities along the axis. For example, Jane Furse node is dependent on nodes such as Schoonoord for government and social services, as well as labour supply, while Schoonoord depends on Jane Furse for high end retail and medical services ; and
- Interaction between the centres must create the potential for further development along the communication axes between centres. There is potential for development in areas such as GaMarishane between Apel Cross and Jane Furse, as well as massive development on the junction of R579 and Phokoane, as well as the junction between R579 and R574 and the R579 plays a catalytically important role on these above mentioned potential development.



Map 39: Demonstrates the R579 development corridor and supporting road network within MLM

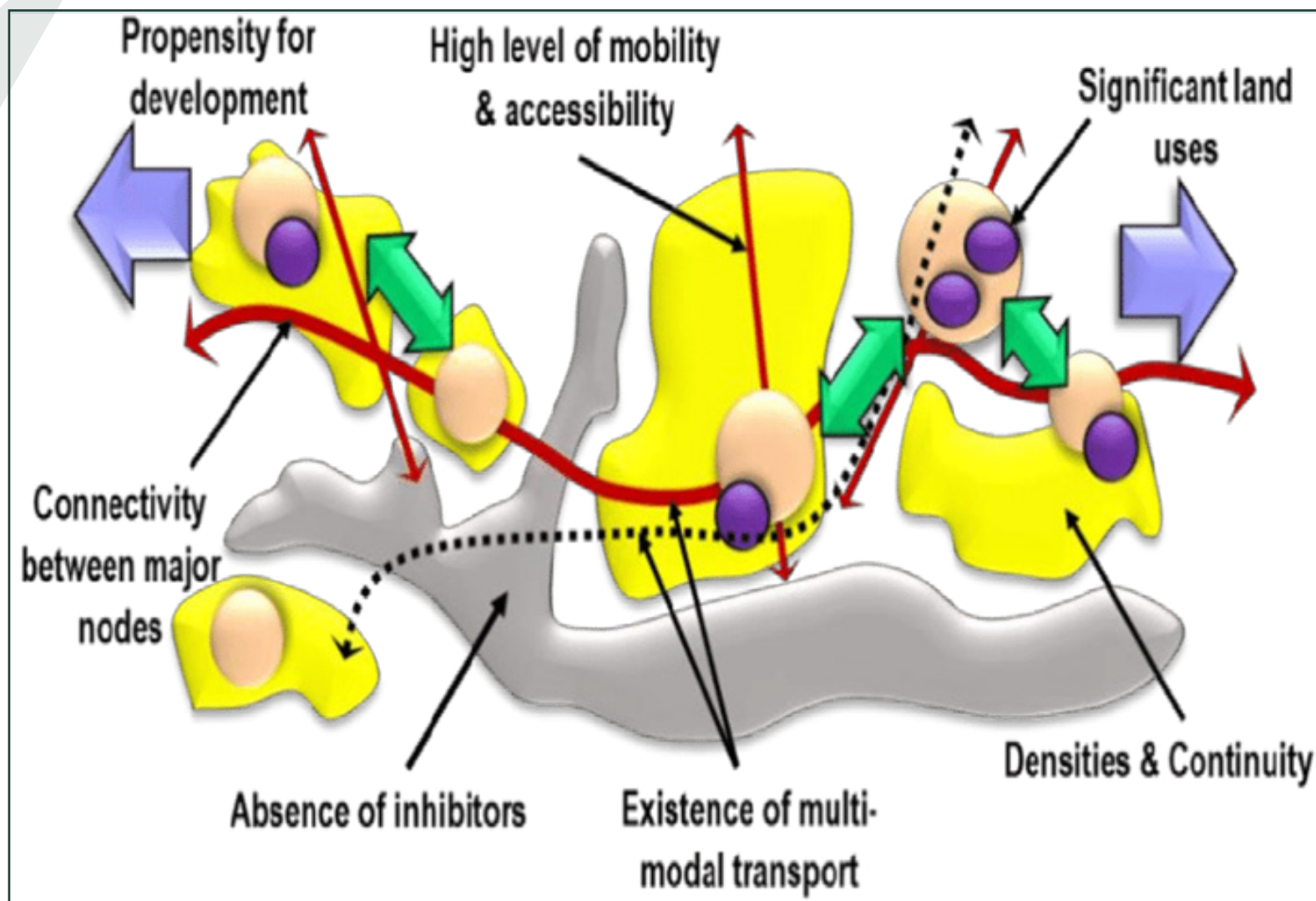


Figure: Character of R579 activity corridor in MLM

In fulfilment of the directives and guidelines of the White Paper on Transport, the MLM should take into account the restructuring elements of using the R579 activity corridor to cluster development and maximise on the economies of scale. This will ensure that public transport travel distances and times for work trips should be limited to about 40 km, or one hour in each direction between the nodes within MLM and areas of economic activities outside MLM but which constitute the municipality's sphere of influence.

This will spatially translate in new settlements being located no further than 40 km from the major work destinations and the R579 corridor. On the eastern side of the R579 between Phokoane and Moratiwa and Glen Couwie settlement planning in areas like Mohlarekoma should gravitate towards the northern side of the R579 road. Further, as a general guideline, settlements should rather be located as close as possible to places of work and other urban activities so as to facilitate trips by bicycle or on foot. The White paper further states that where this is not possible, settlements should be located close enough to work destinations to enable public transport vehicles to make two or more trips from the settlement to the workplace or school in peak-hour periods.

Proposals for the enhancement of the R579 corridor do not constitute stand-alone proposals that can be divorced from other interventions developed and mentioned in this reviewed SDF. They are intertwined with targeting proposals for identified nodes and local service points, as well as general principles and spatial

strategies mentioned in chapter 5 of this report. The fact that the corridor has been singled out is to put more emphasis on the spatial targeting strategies and proposals mainly more relevant to corridor development and enhancement.

The following are proposed spatial actions that the MLM should put in place to enhance the form giving elements of the R579 activity corridor:

- Land acquisition along the corridor (this may even include expropriation as an acquisition model as was the case with the Gautrain land acquisition model)

The first step in this proposal is the Identification of registered owners of strategically located land along the corridor. Fortunately, the MLM has completed a land audit in 2020 which will go a long way in assisting in the identification of land owners for possible negotiations on land acquisition. However, contending land claims may be a drawback towards acquisition as the Regional Land Claims Commission is still processing those claims. That should, however, not be a permanent disturbing factor as planning and acquisition can still be done while determination of who the rightful owners is still ongoing. Compensation funds may be put in a trust account until ownership is finalised.

The MLM, together with the Limpopo provincial government through the Roads Agency Limpopo should explore all forms of acquisition including expropriation to enable it to remodel the R579

corridor into an economic spine that will translate into massive job opportunities for the area.

- Planning, design and implementation of a dual Carriage road for the R579 corridor with a dedicated lane for bus rapid transport (BRT) infrastructure for ease of mobility along the corridor and between the nodes.

The MLM, through its Local Integrated Transport Plan, should ambitiously plan for a sustainable corridor that has efficient and effective dual carriage way with adequate provision for bus rapid transport facility for better access and mobility. To achieve this, the MLM will need to enter into partnership with the following partners:

- ☐ Limpopo Department of Public Works, Roads and Infrastructure and Roads Agency Limpopo (RAL) for funding, planning, design and implementation of the improved road infrastructure
- ☐ Department of Rural Development and Land Reform for land acquisition
- ☐ Traditional authorities and private land owners as identified in the MLM land audit for land availability and acquisition by any viable model
- ☐ COGHSTA Limpopo
- ☐ Public transport operators for partnering in the public transport space and the support for the BRT project

While getting lessons from international best practices on improved

mobility which also encompass BRT, the MLM can also learn lessons from South African best practices as well as those in the Limpopo province.

Major metropolitan centres such as the City of Tshwane, City of Joburg, eThekweni, Metro and Mbombela City are some of the best practices nationally where roads in nodes and on corridors between nodes have been upgraded with dual or more lanes and the provision of BRT facilities coupled with sufficient and modern public transport facilities as well as associated alternative modes of transport.

Closer to home within the Limpopo Province in the Polokwane Municipality, the MLM can learn better lessons and good practices from the fledgling upgraded Nelson Mandela drive that link the city of Polokwane with Seshego whereby a dual carriage way has been created and coupled with dedicated BRT lanes in both directions to improve motor vehicle mobility as well as pedestrian sidewalks and facilities for cyclists as reflected in picture... below.

The provision for a choice in the form of transport mix along development corridors is a breaking new ground opportunity for the MLM to embark on if it wants to attain a transformed and economically viable spatial environment. It also ensures the maximum utilisation of space which maximises the economies of scale for a particular region implementing such spatial targeting tools.



Picture: Set demonstrates a typical dual carriage way with the provision of bus rapid transport facility as a medium to long term plan for the MLM



Picture set: Shows the upgraded Nelson Mandela drive with modern facilities for the inaugural Leeto la Polokwane BRT service.

- Provision of multimodal public transport facilities along strategic points of the corridor which include taxi and bus shelters at strategic points of the corridor

The R579 corridor offers an opportunity for the MLM to provide modern public bus and taxis facilities which will make usage of

public transport fashionable and reduce the carbon foot print from regular usage of motor cars.

Picture below depicts modern solar bus shelters that are commonly used internationally. Such types of bus and taxi shelters can also be provided with Wi-Fi to improve on ICT connectivity.



Picture set: MLM can provide modern solar taxis and bus shelters which can also generate income for the municipality through outdoor advertising fees from advertising companies

The municipality will obtain the following benefits from the use of solar powered bus and taxi shelters:

- ☐ Increase usage of public transport
- ☐ Revenue generation through advertising fees
- ☐ Less reliance on coal powered energy
- ☐ Improved ICT

The MLM may even incur no costs in the construction of such facilities as it may enter into concession with businesses over an agreed period of time wherein the business partners will construct at own costs such facilities, operate and maintain them while recouping their investment injections from advertisers who use such spaces for advertising their services offerings.

- Provision of pedestrian and cyclists lanes along the corridor in built up environments, starting with nodes and local service points to encourage Non-Motorized Transport (NMT) such as pedestrians and cyclists

To make the corridor pedestrian friendly, the MLM should make provision for pedestrian side-walks and lanes for cyclists. This should be coupled with the provision of street furniture and aesthetic form giving elements. This will reduce the carbon footprint and encourage the use of NMT as an alternative transport mode..

- Promotion of High density mixed land use development along the R579 corridor

This SDF proposes the Concentration of economic and industrial activities in strategic areas along the arterial R579 route. The concept of development corridors connecting strategic nodes relies on an reliable and affordable public transport system. This concept will generally comprise of mixed uses (commercial, industrial and residential) located on strategically demarcated areas along the R579 development corridor. Nodes such as Apel Cross, Jane Furse, Schoonoord, Phokwane and Moratiwa on the other hand should be characterised by the clustering of activities at points of maximum accessibility.

The function of the R579 development corridor will be the following:

- Connect nodal points in term of size and diversity of activities.
- Support and connect nodes with high interdependence and functional coherence.
- Provide a channel through which economic growth and job creation will be initiated.
- Provide opportunities for densification and intensification related to public transport systems.

In order to successfully implement this strategy of corridor development for the R579 activity spine, this SDF proposes that the MLM should also borrow from best practices nationally and internationally and perfect such to suit its conditions and circumstances. The University of Delaware in the United States has planned, designed and implemented a number of mixed-use development programmes in the US and beyond and good

lessons can be emulated by the MLM from such international best practices. According to the Institute for Public Administration at the University of Delaware, Mixed-use zoning allows for the horizontal and vertical combination of land uses in a given area. Commercial, residential, and even in some instances, light industrial are fit together to help create built environments where residents can live, work, and play (University of Delaware, 2017). The Institute went further to categorize two main forms of mixed use development, namely vertical and horizontal:

Vertical Mixed-Use Development

- ☐ Combines different uses within the same building
- ☐ Provides for more public uses on the lower floor such as retail shops, restaurants, of commercial businesses
- ☐ Provides for more private uses on the upper floors such as residential units, hotel rooms, or office space.

Horizontal Mixed-Use Development

- ☐ Consists of single-use buildings within a mixed-use zoning district parcel, which allows for a range of land uses in a single development project
- ☐ Provides for a variety of complementary and integrated uses that are walkable and within a given neighborhood, tract or land, or development project.

Based on scarcity of sufficient land for development in MLM along the R579 corridor, the SDF proposes the use of a hybrid approach for vertical and horizontal mixed-use development. However, the

MLM should lean in favour of the vertical one to save on the scarce land commodity, especially in nodes.

To attain successful high-density developments along the R579 development corridor, the MLM has to consider invoking the following strategies:

- ☐ Address possible MLM Spatial Planning and Land Use Management By-law deficiencies. Identify provisions within zoning, subdivision, development, and other regulatory codes that prohibit mixed-use development;
- ☐ Target development opportunities to nearby, compatible land uses to shorten trips and facilitate alternative modes of transportation, such as walking, bicycling and public transit;
- ☐ Prepare a market analysis to estimate market demand and supply for new or expanded residential, commercial (e.g., retail and service business categories), and industrial business opportunities –the cluttering of residential and business developments along the R579 corridor is an indication of the attractiveness of that route;
- ☐ Provide a combination of financial and regulatory incentives to mixed-use developers, such as rebates for rates and taxes in terms of the MLM property rates policy or discounted rates for utilities, expedited development approval processes, and providing density and building height or floor area bonuses.

Figure,,below shows a typical high density mixed-use development typology for the MLM to emulate.

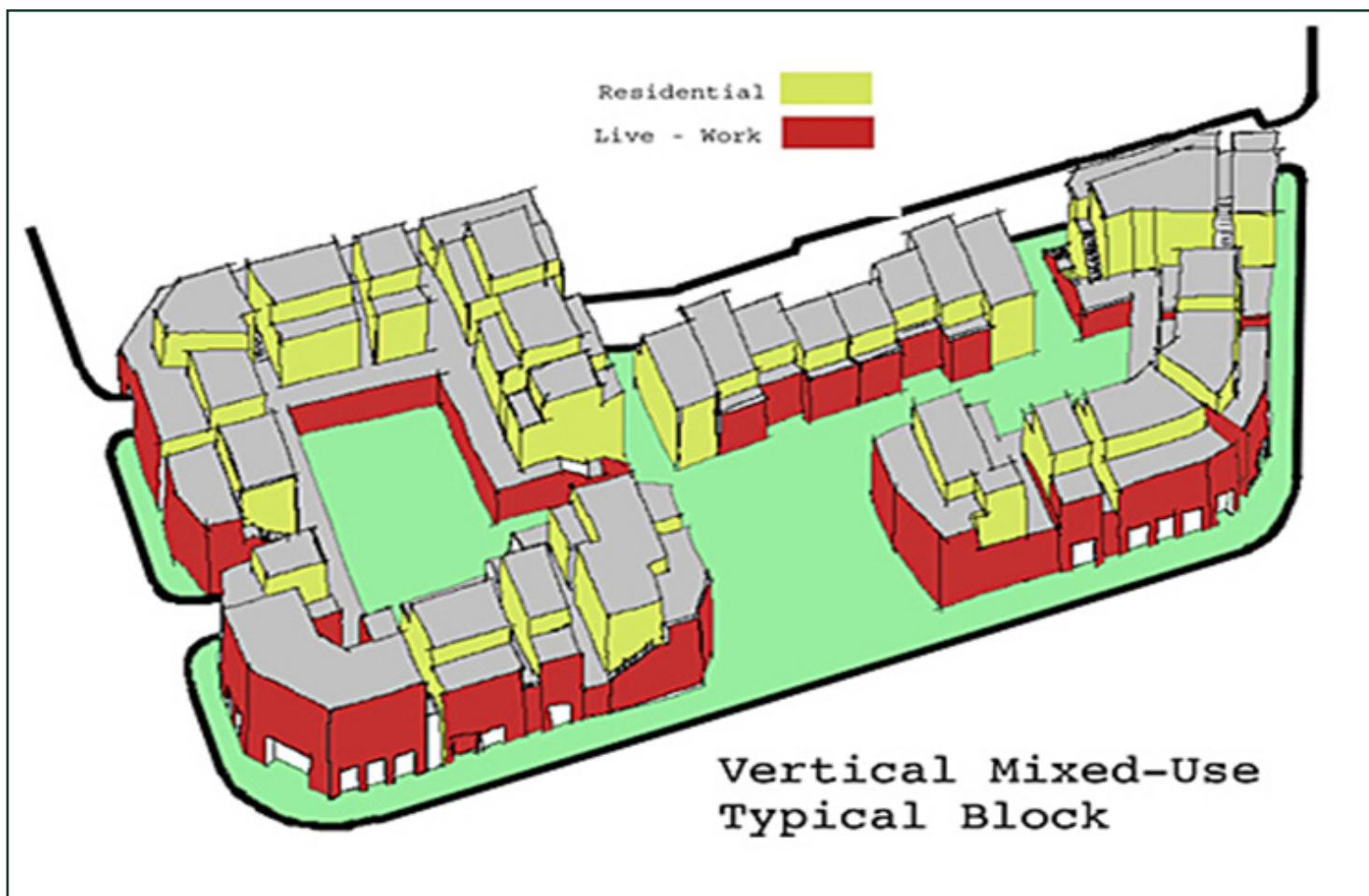


Figure: Reflects a typical vertical mixed-use development that the MLM should explore along the nodes on the R579 corridor-the Phokwane junction south east of the R579 may provide a good location for this kind of development.

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- ☐ Provide a combination of financial and regulatory incentives to mixed-use developers, such as rebates for rates and taxes in terms of the MLM property rates policy or discounted rates for utilities, expedited development approval processes, and providing density and building

height or floor area bonuses.

The MLM stands to benefit in a number of ways from the mixed land use development in a number of ways such as the following:

- ☐ Reduced travelling costs
 - ☐ Low infrastructure development costs
 - ☐ Reduced carbon foot print
 - ☐ Improved employment opportunities and growing economy
 - ☐ Increased tax revenue for the municipality through property rates as well as increased tax base for the national fiscus.
- Provision of sustainable Information and Communication technology along the R579 corridor

There is a strong symbiotic relationship between ICT and improved transport services.

This MSDF, having noted challenges of ICT connectivity within the MLM in the status quo chapter of this report, proposes the targeting of the corridor for the provision of cellular and data connectivity in order to ensure seamless availability of communication and proper flow of information in the transportation of people, goods and services.

There are also international and national best practices on the relationship between ICT and the transport sector. According to Vijayakumar and Mehendiratta (2010), the deployment of ICT for the transport sector in the developed cities like Stockholm has been the era of developing sensing capabilities both of vehicles and traffic monitoring systems to perceive anomalies, and

hazards in the environment, and to improve the fluency of traffic for less costs and cleaner environment.

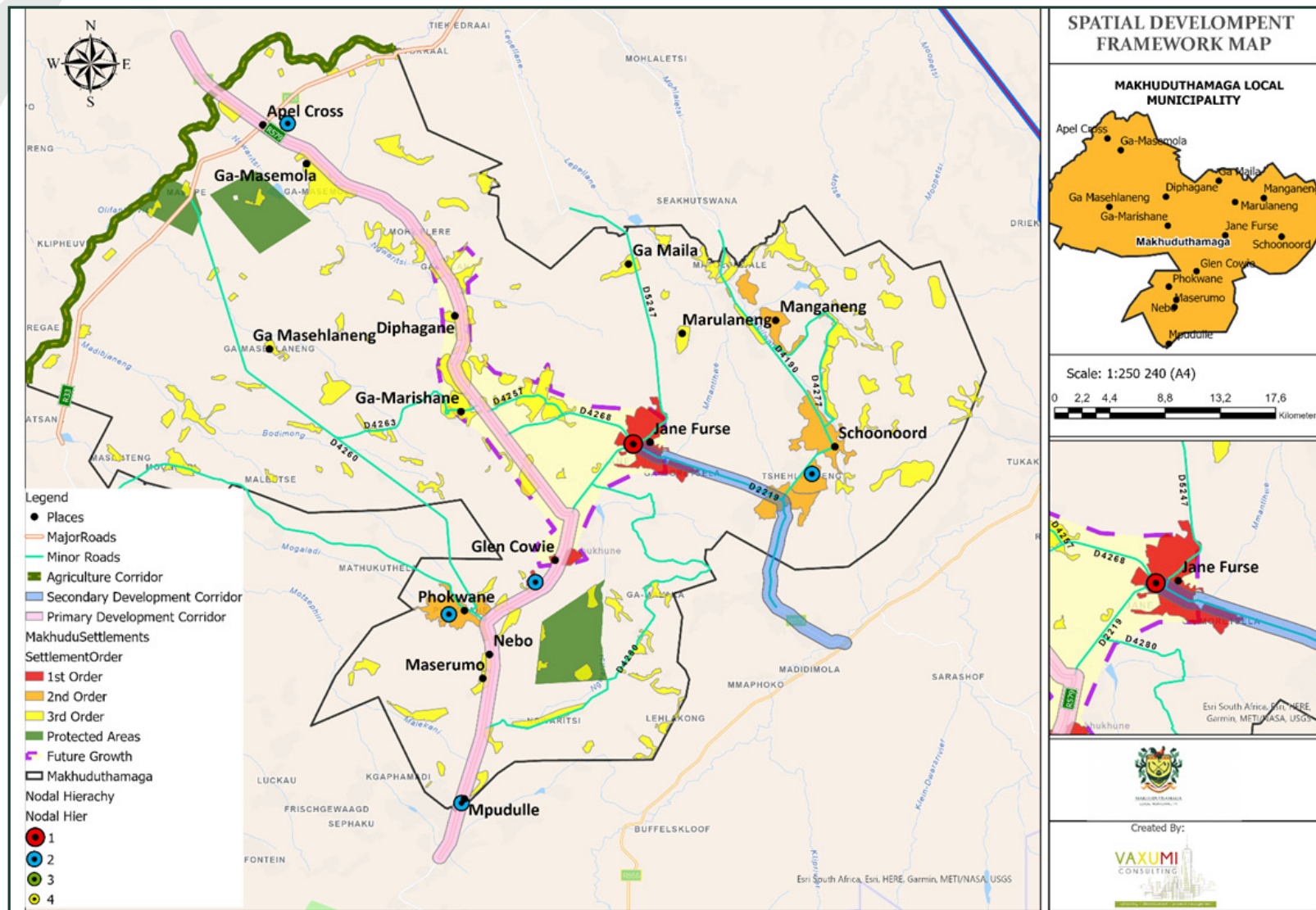
There is a need for certain traffic management systems to improve the safety and efficiency of the road network by harmonizing traffic flow and focusing on the driver behaviour.

The MLM should explore the following proposals to ensure it harnesses the benefits of ICT for the transport sector:

- ☐ Provisions of 24 hours surveillance facilities
- ☐ Provision of ICT infrastructure that monitors and report on driver behaviour
- ☐ ICT connectivity in terms of cellular and data capacity for the entire R579 corridor as is the case with the connectivity along the Ni/ M1 corridor between Pretoria and Johannesburg or the R21 Corridor.



Picture set: An example of a high density mixed land use development in Delaware town that may be emulated in the middle to long term along the R579 corridor with its associated benefits



Map: 2021 Draft SDF Map

7. IMPLEMENTATION FRAMEWORK

7.1 Introduction and Background

Section 26 of the Municipal Systems Act (Act 32 of 2000), describes the SDF as one of the critical components of the IDP which translates the IDP spatially and guides the form and location of future physical development within a Municipal area with the aim of creating sustainable settlement environments.

The Makhuduthamaga Municipality SDF identified nodes (rural and urban) which represents the priority development and investment focus within the municipal jurisdiction. It is at these nodes where new infrastructure should be prioritised and existing infrastructure needs to be upgraded to stimulate the vibrancy and economies of the municipality. Radical mechanisms must be put in place to support intensification and mixed land use development in order to attain spatial justice and efficiency principles as part of the bigger picture of realizing spatial transformation.

This Implementation Framework proposes measures and interventions and projects necessary to give effect to the objectives and targets of this SDF.

As part of the SDF process, Development Principles and Strategies were formulated to address the key spatial challenges facing Makhuduthamaga Municipality area of jurisdiction. In order to realize this vision, the SDF proposes certain tools and strategies

that are necessary to ensure its successful implementation. Of critical importance to the successful implementation of the SDF is the institutional capacity of the Municipality which will be the driving force behind this implementation. This includes the technical capacity of all Municipal Departments in terms of technical and re-sources capacity particularly the Municipal Planning Department as the key driver of this process. In essence, all Municipal Departments must be fully equipped with properly trained staff and re-sources to drive the SDF implementation process. If a coordinated and integrated approach is not followed and the SDF is only seen as a sector plan of the municipal Planning and Development Department, then this noble plan will gather dust and enjoy very little implementation as was the case with the MSDF 2015 document.

Implementation also hinges on financial capacity. The Municipality needs a capable financial department to allocate funding and source out funding from external funding sources to successfully implement this SDF.

Another important aspect of the SDF implementation is the co-operation between various external public and private service providers who are responsible for delivering services and infrastructure within the municipality. Important role players in this regard include, amongst others, the Limpopo Province Roads Department, Department of Public Works, Department of Justice, SAPS, the Department of Health, Department of Rural Development and Land Reform, Department of Home Affairs,

Department of Labour, and the Department of Education, some of whom have buildings/offices in Jane Furse town and other nodes such as Schoonoord, Apel Cross, Moratiwa, Phokoane, Nebo and Glen Couwie.

The Municipality needs to sign Memorandums of Understanding/ Service Level Agreements with all these development agencies in order to ensure that the facilities under their jurisdiction are at all times properly maintained and managed in order to contribute towards the Makhuduthamaga SDF.

Due to the fact that limited areas have been proclaimed, development control in the study area remains a challenge for the Makhuduthamaga Municipality. The Council should collaborate closely with local traditional authorities as stressed in chapter 4 of this SDF, in order to influence new developments and land use change in the area. Once the Land Use Management Scheme (LUMS) has been completed it will be useful for managing land use rights in the study area.

Alignment with the IDP and Budget-

A successful implementation can only be measured through continuous and consistent Monitoring and Evaluation strategies. The Council must introduce a mechanism to monitor and evaluate progress of the SDF which will include objectives, key performance targets, indicators in terms of timeframes and deliverables.

7.2 Implementation Actions and Mechanisms

The Makhuduthamaga SDF reflects the future spatial vision for the area. However, the SDF is worthless if not supported by way of a comprehensive implementation or management programme for the area. In order to ensure the efficient implementation of the SDF, it is thus proposed that the following six programmes be initiated and implemented/operationalized in the Makhuduthamaga Municipality as part of a more comprehensive SDF Management Programme:

The following section elaborates on each of these programmes:

a) Policy Formulation and Implementation

The following policy interventions ought to be in place to facilitate seamless implementation of the SDF:

- Shortening of land use Development Procedures and flexibility in the amendment of land use schemes.

This will support the spatial principle of efficiency and good administration.

- Informal trading policy and by-law
- Incentives policy and by-law for investing in nodal areas
- Densification policy
- Nodal policy (indicating nodal boundaries and development controls of all the existing and future nodes)

b) By-Law Introduction and Enforcement

Firstly, the Council must introduce by-laws to manage land uses and human behaviour. Secondly, a vigorous campaign must be initiated to make people aware of the existing by-laws and what by-laws are intended to achieve. Proper by-law enforcement should ensure that law and order is re-stored in the study area, with specific focus on the following aspects:

- illegal land uses
- illegal/ informal trading
- signage
- illegal/ unsafe/ neglected building structures
- illegal settlement
- traffic control and management

c) Basic Maintenance and Service Enhancement

The purpose of this sub-programme is to ensure that all service departments within the Ma-khuduthamaga Municipality reach a common agreement on the minimum levels of service to be achieved and maintained in the Municipal area. Typical aspects that should be part of such an Agreement include infrastructure provision and maintenance (community facilities and services), policing, landscaping, land use management, by-law enforcements as well as public property management and maintenance.

This initiative can be done in-house by way of regular inter-departmental alignment meetings or one-on-one discussions

between the relevant departments. Programmes emanating from this initiative should be consolidated into the Makhuduthamaga Municipality IDP.

d) Provision of Street Lighting

It is essential that all major public environments and streets particularly in nodal areas be provided with proper street lighting in order to aid in preventing incidences of crime. The main roads and pedestrian routes in nodal areas should be given first priority in this regard.

This is in line with the CSIR guidelines and standards as contained in the Green Book dealing with design for safety principles. The starting point should be the primary node of Jane Furse. In order to conform with green and sustainable energy initiatives provision for solar street lighting should be followed. This will migrate the municipality from its reliance on grid energy supply to off grid which also assists in reducing the carbon foot print.

In the provision of street lighting at strategic places within nodes, a great level of creativity and innovation is required in order to enhance the aesthetic nature and street scape of the area. As a starting point, the use of solar street lighting is proposed for the activity spine of the R579 from Jane Furse to Moratiwa intersection. The second phase of solar street lights should focus on the R555 from Jane Furse to Magnet Heights via Moretsele village.



Figure 16: Sample solar street lights

e) Informal Trading Upgrading

Informal trade represents a very important component of the economic base of most communities. Proper management, control and assistance of informal trade in the Municipal area must be introduced. This programme must focus on finding ways and means of properly structuring and assisting informal trading, and could include aspects such as sponsored shelters.

Linked to the informal trading sector, the Council must formulate and implement an Informal Sector Promotion Strategy that would assist entrepreneurs to engage meaningfully in the main-stream economy in the Makhuduthamaga Municipality. The strategy would serve to:

- Formalise the organisation of informal sector business.
- Identify business constraints and opportunities for informal sector business.
- Identify skills training needs and facilitate provision of training services.
- Identify infrastructure and logistical needs.
- Provide overall business development services for SMMEs.

DBSA and/or the Department of Trade and Industry could be approached to assist with expenses that may be incurred. The European Union LED Programme in Limpopo is also a potential source of funding support.

f) Establishment of Land Use Management (LUM) Committee Office

A Land Use Management (LUM) Committee with delegated powers from Council to enforce and manage the LUM System must be established.

7.3 General Supporting Guidelines

The following general supporting guidelines have been drawn to assist and aid decision-makers in the planning of projects so as ensure contextual alignment to the SDF:

- Development of precinct plans for nodes that do not have such. This includes, but is not limited to, Moratiwa and the local service point of Nebo.
- Development of infrastructure master plans for nodes that do not have such.
- Protection of critical and Biodiversity areas including green infrastructure and agricultural areas.
- Abandonment of current pattern of fragmented settlements characterized by mono-functional land use and sprawl
- Consolidation of a variety of business activities, formal and informal, within identified activity nodes to optimize

their development potential.

- Implementation of mixed land use high density residential developments to maximise on the economies of scale when it comes to the provision of housing and associated public service infrastructure.
- Improvement on regulation of the informal economy to maintain the cleanliness and safety of the town. Awareness of by-laws that regulate the sector as well as their enforcement should be implemented. For this to be attained there should be training and development of all role players to mentor participants to be players in the main stream.
- Continuous monitoring of existing formal water, sanitation, waste management and electricity network to ensure timely upgrade where necessary to meet the current and future needs of communities in the Makhuduthamaga Municipality.
- Consideration of including alternative sources of energy in the energy mix which include green energy where nodal points can be energized on solar, wind and other forms of energy other than coal driven energy as is the practice in most towns where robots and other energy driven equipment have been removed from the grid.

7.4 Monitoring and Review

The Makhuduthamaga Municipality should ensure that the appropriate monitoring and evaluation systems and processes are established and functioning towards continuously assessing achievements of the MSDF monitoring progress and documenting inadequacies when and if they arise. These should be refined and perfected as informed by feedback and experience.

7.5 Capital Investment Framework

7.5.1 Capital Projects

The following road network is proposed for tarring and or upgrading:

- ☐ Upgrading through widening of road R579 into a dual carriage way between Jane Furse and Stofberg via, Moratiwa node;
- ☐ Provision of pedestrian sidewalks and cycling routes in all nodes;
- ☐ Paving of all internal streets in nodal points and rural service points such as Ne-bo and Phokoane
- Installation of traffic lights in the main streets of the Jane Furse node to regulate traffic and pedestrian movement, as well as street lights to encourage pedestrian mobility at night.
- Government precinct at Jane Furse

- Mixed land use development opposite Jane Furse Hospital
- Intermodal transport facility along the mixed land development at Jane Furse
- Provision of various modes of transport infrastructure including public transport facilities such as bus shelters and semi taxi stations along road R579 within the entire MLM but with nodes and rural service points as points of departure.
- Provision of full engineering services for all nodes and local service points

A consolidated list of all projects which are necessary to realise the vision of the SDF is provided in Section 5 of this chapter, incorporating the projects listed above as well as projects extracted from the current IDP.

7.6 Institutional Actions

- Inter-governmental relations with Magoshi-land admin and management
- The establishment of a one stop government precinct will help increase the economic potential of the Jane Furse node and lead to economic diversification. It is recommended that the municipality identify an area in

close proximity to other government and social services where a high-density multiple storey building can be constructed to house new government and social players in the node. In this regard, the existing old traffic station adjacent the magistrate offices could be considered for such purposes.

- Embark on review of powers and functions on the road infrastructure function to be de-volved to the municipality with accompanying funds and related resources so that the municipality can be the planning and implementing authority to fast-track development on this crucial service. If the review of powers and functions is delayed then an option of the provincial government, through Roads Agency Limpopo, entering into an agency agreement with the municipality should also be explored.
- The Makhuduthamaga Municipality should commence negotiations with Traditional Authorities with a view to facilitate the release of strategically located land parcels with Jane Furse as a point of departure to the municipality.
- Specifically in relation to the Nebo and Phokoane nodal points, this SDF proposes the following immediate actions:
 - ☐ Put a moratorium on the development of new residential units that encourages settlement sprawl
 - ☐ Enter into negotiations with Traditional Authorities within

MLM to make them aware of the strategic location of these nodes and the need to jealously guard against the allocation of new land for development until spatial planning matters are addressed.

7.6.1.1 Institutional Arrangements

a) Public Private Sector Role

The success for the implementation of this SDF requires that proper institutional arrangements be put in place to steer the implementation of programmes identified. Experience has indicated that good plans are put in place by most government departments and agencies but their implementation becomes a challenge if proper institutional arrangements are not placed in place. It is important to indicate that the success of the MLM spatial development framework will be anchored around the support and participation of the public sector, the private sector and civil society (municipal citizens).

For the public sector role, Makhuduthamaga Municipality will bank on its interface with the District Municipality, the Limpopo Provincial Government and the National Government. While implementation takes place at a local level, the National Government provides a regulatory and policy framework for spatial planning and ensuring that implementation of programmes on municipal land is done in accordance with such frameworks.

For that purpose Makhuduthamaga will depend on the support derived from the Department of Rural Development and Land Reform. Further-more, there are projects for which national government is the implementing agent. Such includes projects implemented by Public Works (national) for infrastructure projects such as police stations, magistrate offices, correctional facilities etc. Makhuduthamaga Municipality should liaise with such departments to ensure the implementation of such projects is aligned to the SDF with specific targets being the nodes of Jane Furse, Schoonoord, Phokoane, Apel Cross, Nebo and Moratiwa.

The Limpopo Provincial government also plays a huge role in giving effect to the implementation of this SDF. Over and above serving as a main focus of integration between the national government and the local sphere of government, the provincial government is also an implementing agent for a variety of infrastructure development projects and programmes, amongst others schools, health facilities, roads, housing development, economic infrastructure etc.

This it does either directly or using its agencies such as Roads Agency Limpopo (RAL) for roads upgrading and maintenance. It is through these infrastructure investments that the provincial government can assist in the transformation of the Makhuduthamaga spatial patterns through targeted investments in identified urban nodes and strategic rural development areas. At the District level it is well recognised that the Sekhukhune District Municipality has been playing and continues to play a huge

role in offering support to municipalities that constitute the entire district.

The SDM, as the theatre of planning coordinates the district planning forum that feeds into the provincial planning forum for purposes of streamlining and aligning development in the district and its constituent municipalities. Support and corrective action during implementation, monitoring and review are best placed at the district. Currently the Planning Tribunal of the Makhuduthamaga Municipality is coordinated jointly at the District Municipality.

As the Water Services Authority, the Sekhukhune District Municipality plays a key role in the provision, operation and maintenance of water and sanitation infrastructure to three constituent municipalities out of four in the Sekhukhune area with Makhuduthamaga Municipality being one of them. The development of this SDF dictates for the local municipality to work hand in hand with the district to attain spatial targeting on identified nodes and rural strategic areas to maximize the impact of such services.

This SDF recognizes the important role played by the private sector in impacting on and transforming the spatial identity of the Makhuduthamaga municipal area, especially at the nodes and strategic rural areas identified. In developed countries, as well as well-developed towns and cities of South Africa, the private sector plays a key role in land and infrastructure development. The

Makhuduthamaga Municipality should ensure maximum buy-in and cooperation with the private sector so that they can have an understanding of the development plans of the municipality, the areas targeted for development and the private sector benefits that can be derived from investments in such localities.

b) The Role of Traditional Authorities

As mentioned in the spatial analysis of the current reality and in the proposals for the Makhuduthamaga Spatial Development Framework most of communities, reside in land under the custodianship of traditional leaders. In all planning, implementation, monitoring and review of this SDF traditional leaders have to participate fully. Most of the priority programmes and projects will take place in areas where they are custodians of such land parcels.

Their active participation has a resultant effect of fostering buy-in and support to the spirit of the SDF and its quest for redressing the spatial legacies of the past.

On the basis of good relations between the municipality and traditional authorities within its areas of jurisdiction, the Makhuduthamaga Municipality will also make the work of the joint district planning tribunal easy as land development applications will be screened to ensure that they are in alignment with this SDF before being submitted for finalization.

c) Other Possible Partnerships

The Makhuduthamaga Municipality should pursue partnerships with academic institutions for capacity building to its staff and communities over a wide variety of issues ranging from governance excellence, entrepreneurship for its SMMEs. Furthermore partnerships may be entered into with SETAs on training and development for its young people to grab opportunities for growth and development, especially in identified nodes as well as at the proposed new special economic zone of Burgersfort. Through TIL and LEDA, partnerships can be initiated with investors who will be developing and operating the SEZ.

On infrastructure development in nodes strategic partnerships are possible with agencies such as Road Agency Limpopo, South African National Roads Agency for rolling out of the roads networks that transverse through the municipal area, while same

for municipal roads and internal streets can be pursued with the district municipality.

Partnerships should also be promoted to initiate programmes and projects to build the capacity of communities to participate in the whole planning and delivery process so that they can both influence planning decisions and monitor implementation of agreed plans.

7.7 Priority Actions and Projects

This section tabulates a consolidated project list that will serve as a guide for the Municipality in its endeavours to successfully implement the SDF imperatives. It serves as a road map to be followed by the Municipality in its quest to realise the SDF vision.

Table 17: Makhuduthamaga SDF Proposed Projects

ACTION/PROJECTS	IMPLEMENTATION PROGRAMME			Priority	Estimated Cost	FUNDING SOURCE
	Short-Term (1-3 Years)	Medium Term (3-5 Years)	Long-Term (+ 5 Years)			
1. SPATIAL AND LAND USE PLANNING						
Development of precinct plan for Moratiwa node	X			High	R800 000	MLM
Development of precinct plan for Nebo Local Service point	X			High	R800 000	MLM
Development of the nodal boundary determination policy	X			High	R500 000	MLM
Establish a Land Use Committee to enforce and manage the Land Use Management System.	X			High	-	MLM
Introduce and enforce land use by-laws throughout the municipality.	X			High	-	MLM
Enforce submission of Site Development Plans and Landscape Development Plan during land use applications	X			High	-	MLM
Development and adoption of Infrastructure master plans for the nodal points of Jane Furse, Apel Cross, Nebo, Phokoane, Glen Couwie and Magnets Heights-Schoonoord	X			High	-	MLM/SDM
Delineation of a new urban edge for the Jane Furse town and infill development of vacant pieces of land within the urban node		X		Low	-	MLM/SDM
Upgrading of Informal Settlements on a suitable and a well located land.			X	High	-	MLM/SDM/COGHSTA
Tenure upgrading and opening of township register for Jane Furse, Apel Cross, Nebo, Phokoane, Glen Cowie and Magnets Heights-Schoonoord		X		Medium	R15 million	MLM/SDM/COGHSTA
Identification and naming of streets for all nodes	X			Medium	R5 million	Own Revenue (lobby the National Geographic Names Committee for top up funding and capacity building)
Review of Land use Management and appointment of service provider for LUMS	X			Medium	R3,8 million	Equitable Shares
Construction of licenced Land fill sites and or transfer stations in Apel Cross, Nebo, Phokoane, Glen Couwie and Magnets Heights-Schoonoord		X		High	R90 000 000	MIG

ACTION/PROJECTS	IMPLEMENTATION PROGRAMME			Priority	Estimated Cost	FUNDING SOURCE
	Short-Term (1-3 Years)	Medium Term (3-5 Years)	Long-Term (+ 5 Years)			
Coordination and Gazette of the Makhuduthamaga SPLUMA By-laws	X			Medium		Transitional Grant
Coordination and Implementation of SPLUMA (Sekhukhune District Municipal Planning Tribunal)	X			High	R800 000	Equitable Shares/SDM
Implementation of Sekhukhune District Municipality Spatial Development Framework	X			High	R1 200 000	Equitable Shares/SDM
Coordination of the Sekhukhune District Municipality Strategic Planning Sessions	X			Medium	R1 150 000	Equitable Shares/SDM
Feasibility Study for Township Establishment/Land Development (mixed land development) for Jane Furse Area.	X				R1 500 000	MLM/SDM
Feasibility Study for Township Establishment/Land Development (mixed land development) for Apel Cross Area.	X				R1 500 000	MLM/SDM
Establish CBD Complaints Database		X				
Launch Informal Trade Capacity Building and Support Programme		X				
Establish all inclusive CBD Management Forum	X					
2. ENGINEERING INFRASTRUCTURE UPGRADING & PUBLIC TRANSPORT						
Construction of R579 Dual Carriage way road		X		High	(funding to be confirmed from engineering designs)	MLM/SDM/RAL
Conduct traffic impact study to explore the viability of an intermodal public transport facility and traffic management measures in the Jane Furse primary node	X			High	R500 000	ES/RAL
Feasibility studies for Bus Rapid Transport for R579 activity spine from Jane Furse to Moratiwa, via Glen Couwie, Nebo and Phokoane west bound, and east bound from Jane Furse to Schoonoord via Magnets Heights	X				R 10 million	MLM/SDM/RAL
Construction of a Bus Rapid Transport service for R579 activity spine from Jane Furse to Moratiwa, via Glen Couwie, Nebo and Phokoane west bound, and		X			(funding to be determined by reports)	MLM/SDM/RAL

ACTION/PROJECTS	IMPLEMENTATION PROGRAMME			Priority	Estimated Cost	FUNDING SOURCE
	Short-Term (1-3 Years)	Medium Term (3-5 Years)	Long-Term (+ 5 Years)			
east bound from Jane Furse to Schoonoord via Magnets Heights					from feasibility studies)	
Provision of taxi and bus shelters in all nodes	X			High	R3 million each	MLM/SDM
Development of engineering master plans for all nodes	X			Medium		MLM/SDM
Provision of various modes transport infrastructure including public transport facilities & Shelters along road R579	X			Medium		MLM/SDM
Maintenance of MLM internal roads	X			Medium	R218 360	Own Revenue
Roads maintenance, storm water and culverts	X			Medium	R2 152 500	Equitable Shares
Purchase of Industrial bins for Makhuduthamaga Local Municipality	X			Medium	R1 100 000	Equitable Shares
Development of Rural Roads Assets Management System (Public Transport Rural Infrastructure Planning)		X		Medium	R4 536 000	RRAMS Grant/SDM
Management of Makhuduthamaga landfill sites	X			High	R3 300 000	Equitable Shares/SDM
Drilling of Boreholes for Sekhukhune District Municipality		X		Low	-	Equitable Shares/SDM
3. HOUSING DEVELOPMENT						
Jane Furse: Housing Development	X					
Phokoane: Housing Development for Ext. 8	X					
Nebo: Housing development and renovation (govt houses)	X					
Apel Cross: Prepare Township Establishment for Development Precinct		X				
Schoonoord-Magnets Heights: Prepare Township Establishment for Development Precinct		X				
Phokoane: Prepare Township Establishment for Development Precinct						
Phokoane: Begin and/or finalize land acquisition of land parcels on the R579 junction	X					
4. RETAIL AND SERVICE INDUSTRY DEVELOPMENT						

ACTION/PROJECTS	IMPLEMENTATION PROGRAMME			Priority	Estimated Cost	FUNDING SOURCE
	Short-Term (1-3 Years)	Medium Term (3-5 Years)	Long-Term (+ 5 Years)			
Conduct investigations to identify in detail potential land for industrial and related employment purposes along corridors and areas proposed for industrial development.	X			High	-	MLM/SDM
5. MINING DEVELOPMENT						
Identify areas with potential for mining development (Mining Prospecting Projects) – Department of Minerals & Energy to be involved.	X			High	To be Determined	MLM/SDM/DME
6. AGRICULTURE DEVELOPMENT						
Livestock Water Development for MLM			X	Medium	-	LDARD
Operation of Production inputs for Makhuduthamaga Grain Projects in Letsema			X	Medium	-	DoA
Planting of trees in all municipal areas to promote greening and beautifying of the Sekhukhune District.			X	Medium	R40 000	Equitable Shares
Prioritizing agricultural and rural development along mobility corridors to build local economies and contribute towards national food security.	X			High	To be Determined	MLM/DEPT.OF AGRICULTURE
Establishing Agri-Villages for local development at Apel Cross	X			Medium	To be Determined	MLM/DEPT.OF AGRICULTURE
Providing reliable and efficient property deeds registration systems while providing up-to-date land claims information	X			High	-	MLM/DEPT.OF AGRICULTURE? Land Claims Commission
7. TOURISM DEVELOPMENT						
Ordination of investments in Makhuduthamaga Local Municipality tourism potential areas.	X			Medium	R645 750	Own Revenue
8. ENVIRONMENTAL MANAGEMENT						
Conduct Geohydrological Study for all nodes	X					
Compile environmental management Framework for all nodes		X				
Apply all proposed Environmental management Guidelines for all nodes and CBAs	X	X	X			

ACTION/PROJECTS	IMPLEMENTATION PROGRAMME			Priority	Estimated Cost	FUNDING SOURCE
	Short-Term (1-3 Years)	Medium Term (3-5 Years)	Long-Term (+ 5 Years)			
Upgrading and Beautification of Public Open Spaces for Jane Furse	X	X	X			
9. SOCIAL INFRASTRUCTURE DEVELOPMENT						
Upgrade and maintain roads leading towards community facilities.						
10. MARKETING		X				
Brand and Market Jane Furse Town node as MLM's primary investment opportunity area	X					
Formulation and Implementation of a Municipal Marketing and Advertising Strategy for all nodes and local service points	X					
Develop proper signage to promote and market the area at the main entrances to Jane Furse Town.		X				
Develop and implement street address system throughout the municipality with priority given to major destinations.	X					
11. PUBLIC SPACE, INFORMAL TRADE AND URBAN DESIGN						
Institute detailed landscape designs along pedestrian networks with pedestrian walkways linking informal trading areas and pedestrian destinations with street furniture, lighting, paved walkways, etc.	X	X	X			
Enforce the implementation of Urban Design Principles in Layout Plans and upgrade public space along Priority Pedestrian Movement Network.	X	X	X			
Implement system of informal trade stalls.	X	X	X			
Formalise park and informal trade area.	X	X	X			
Implement Urban Design Principles as requirement to Site Development Plan	X	X	X			

7.8 Implementation Requirements

This section tabulates a consolidated project list that will serve as a guide for the Municipality in its endeavours to successfully implement the SDF imperatives. It serves as a road map to be followed by the Municipality in its quest to realise the SDF vision.

7.8.1 Timeframes moving forward

The SDF is not a static rigid plan, but a flexible evolving guideline that will need to be monitored and evaluated to ensure the Makhuduthamaga Municipality and its development partners implement programmes that remain pertinent as the time of implementation. On a monthly basis reports should be compiled to the portfolio committee and management on the implementation of the SDF. Quarterly reports are sent to Council and in the mid-year and annual reports same reports on SDF compliance and implementation are provided.

The revision of the SDF will be effected five years from the year of adoption which in this case the next cycle of review is 2026/27.

7.8.2 Inputs into the IDP

As reflected in the first chapter of this report on legislative and policy perspective a Spatial Development Framework is an integral chapter of the Integrated Development Plan in terms of Chapter 5 of the Local Government: Municipal Systems Act. This SDF is, by

statute, a plan that must be incorporated in the Makhuduthamaga IDP. The new window for the revision of the 2022/20 municipal IDP should use this SDF as a base for informing decision makers, communities, funders and implementing agents about the location of key infrastructure and economic investments within the Makhuduthamaga Municipality. Any programme that should be prioritized for inclusion in the municipal IDP should pass the master test for giving effect to the spatial vision of the municipality. If there are projects and programmes that are not in congruence with the spatial vision of the municipal SDF the municipality must use various platforms accorded by the available IGR structures to remedy such, lest the SDF will be undermined and development will be disintegrated.

7.8.3 Inputs into Sector Plans

The SDF provides a better platform for the development and review of the following sector plans for the following sector plans for the Makhuduthamaga Municipality and the Sekhukhune District Municipality, including, but not limited to,:

- Local Integrated Transport Plan (LITP)
- Sekhukhune Water Services Master Plan
- Makhuduthamaga Integrated Waste Management Plan
- Makhuduthamaga Housing Strategy/Sector Plan
- Makhuduthamaga Roads Master Plan
- Informal Sector Promotion Strategy.

8. LAND USE MANAGEMENT IMPLEMENTATION

8.1 Land Use Management Concept

In order to understand the guidelines in terms of land use management which are applied with-in the Makhuduthamaga Municipality, it is important to know and understand the concept “land use management” and its background. The Spatial Planning and Land Use Management Act, 2013 (Act 16, of 2013) provides the following definitions:

“Land use” to mean “the purpose for which land is or may be used lawfully in terms of a land use scheme, existing scheme or in terms of any other authorization, permit or consent issued by a competent authority, and includes any conditions related to such land use purpose”.

Based on the above, the Act provides a definition of “land use management system” as follows:

As a “system of regulating and managing land use and conferring land use rights through the use of schemes and land development procedures”.

As mentioned earlier in the document, the Spatial Planning and Land Use Management Act, 2013 (Act 16, of 2013) requires every municipality to prepare, adopt and approve a single land use scheme for its area of jurisdiction as part of its land use

management system. Currently, Makhuduthamaga Municipality like many other municipalities throughout South Africa is finalising a single “wall-to-wall land use scheme with land use zonings and regulations.

8.2 Relationship between Spatial Development Framework and Land Use Management.

The main purpose of the Spatial Development Framework is to provide clear strategic directions for the development of the local area over a certain period of time, but with flexibility required to respond to change. It guides the form and location of future physical development within an area in order to address the imbalances of the past. It is the municipality’s strategic planning document for directing and managing growth and change.

With its focus on spatial planning or how the municipality utilises space (land and its environment) and manage competing demands for space, the MSDF will ensure the municipality can achieve a more sustainable, prosperous and equitable future.

While the SDF provides a guideline for future expansion of land uses within a local area, it does not restrict development which, by reason of need or its desirability (in the public interest) can be proven to contribute towards the co-ordinated, sustainable and harmonious development of the area.

The SDF must be reviewed in time to reflect changing priorities,

whereas the Land Use Management System should be tighter and only amended where required for a particular development. The SDF should therefore inform the content of the Land Use Management System, rather than act as the direct source of rights and controls for itself. Land Use Management System deals with day-to-day land use regulation or put differently it contains enforceable rights on property which can only be amended through legal processes such as rezoning or subdivision. In this case the implementation of SPLUMA through preparation of new land use schemes will seek to implement the SDF by means of introducing land use rights which must be enforced by the proposed Land Use Committee.

In a rural context it will be necessary also to deal specifically with natural resource management issues, land rights and tenure arrangements, land capability, subdivision and consolidation of farms and the protection of prime agricultural land.

8.3 Land Use Guidelines (Land Use Categories)

In order to direct development of particular land uses in identified nodes and corridors, it is proposed that land uses in these areas be managed by defining broad land use categories that would be preferred. The following broad land use categories are proposed for the identified nodes and corridors:

Residential. The following density zones are proposed for the study area:

- Density Zones:
 - ☐ High: 10 – 20 units/Ha (700m² stand size)
 - ☐ Low: Up to 10 units/Ha (1000m² stand size)

Retail/Business Uses: stands that provide maximum visual exposure from the main road be used for business use activities (retail, commercial, light industrial).

Community Facilities. These facilities must be clustered around nodal areas to maximize utilization with CBDs used for high order service centres. Where possible community facilities be linked to business activities to maximize utilization.

Engineering Services: All rural areas must be supplied with water, sanitation and electricity as per government norms and standards. Proposed nodal development areas must be prioritized for engineering infrastructure provision.

In terms of internal road network, all main public transport roads must be tarred as shown in Map above. In un proclaimed/rural areas preference in terms of surfacing must be given to public transport routes.

Once the new land use scheme for the entire municipality is completed, the guidelines can be revised and the SDF reviewed accordingly. As mentioned earlier, the Municipality must establish its own SPLUMA compliant Land Use Management (LUM) Committee with delegated powers from Council to enforce and

manage the land use management system.

9. CONCLUSION

Makhuduthamaga Local Municipality took upon the task to review the 2015 spatial development framework as prescribed by the Spatial Planning and Land Use Management Act, 16 of 2013. Part of this exercise was to take stock of the progress in the implementation of the 2015 SDF. The review process has revealed that although considerable progress has been attained, implementation has been slow.

Developmental challenges of uncoordinated planning and dispersed villages as identified in the 2015 SDF remain applicable. These challenges require critical intervention in order to achieve the desired vision of the SDF.

This reviewed SDF places more emphasis on implementation of plans and exploring multi-sectoral partnerships. It is not the intention of the SDF to depart from the 2015 SDF development trajectory. As a result, developmental principles and strategies of the 2015 SDF have been partially retained.

The full implementation, monitoring and evaluation of this SDF requires the commitment and dedication of the Makhuduthamaga Municipal administration to put all hands on deck and to further

ensure the plan is marketed adequately to all staff and community members.

Further-more, the success of this SDF will require council to play its oversight role through the use of its council committees, especially the portfolio of LED and Planning, as committees of first entry.

It is through the joint effort of all role players that the spatial vision of this SDF will be realized thereby accelerating high impact development for the municipality in line with the spirit of the National Development Plan.

The success of this revised MSDF will not be measured by the number of boxes ticked by municipal officials and councillors, but will squarely be done through the improved quality of lives for MLM residents as a result of the realisation of this Spatial Development Framework's spatial vision. Some of the notable changes in space will be the following:

- ☐ Sustainable human settlements with access to full engineering services and better amenities of life
- ☐ Massive investments within the MLM and resultant job creation and economic development
- ☐ Harmony in land administration and management

The spatial vision of the MLM is achievable and it is through this that a better life for all residents of the municipality will be realised.

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