

HARRY GWALA DISTRICT SDF

2017/22



Draft SDF 2



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LIST OF ANNEXURES

Annexure A: Built Environment Concept Map

Annexure B: Environmental Concept Map

LIST OF ACRONYMS

| | |
|----------|---|
| CIF | Capital Investment Framework |
| COGTA | Cooperative Governance and Traditional Affairs |
| DRDLR | Department of Rural Development and Land Reform |
| HGDM | Harry Gwala District Municipality |
| IDP | Integrated Development Plan |
| IGR | Intergovernmental Relations Framework Act |
| MSA | Municipal System Act |
| NDP | National Development Plan |
| NEMA | National Environmental Management Act |
| NGP | New Growth Plan |
| SAPAD | South African Protected Areas Database |
| SANBI | South African National Biodiversity Institute |
| SDF | Spatial Development Framework |
| SEA | Strategic Environmental Assessment |
| SPLUMA | Spatial Planning and Land Use Management Act |
| Stats SA | Statistics South Africa |

Spatial planning is a system used to arrange land uses on space. This process includes regional planning, transportation and environment as well as promoting economic growth of a municipality through models and techniques. In that context, the spatial planning system is used to avoid issues such as fragmented, unjust and unplanned development patterns, as well as protecting environmental concerns. Spatial Planning aims to curb against these undesirable spatial forms by identifying the location, form, intensity and size of land reserved for certain activities. Building on the purpose of the Integrated Development Plan (IDP), spatial planning takes development needs identified by the Municipal IDP into consideration and indicates how and where those needs can be addressed spatially. Spatial planning is a participatory process which includes all interested and affected parties. In this context, for spatial planning to be effective, community involvement is essential. In short, spatial planning is a core factor of government's social, economic, institutional, spatial and environmental vision.

1. INTRODUCTION

1.1. BACKGROUND

Harry Gwala District municipality, formerly known as the Sisonke District municipality, is a category C municipality situated in the south of KwaZulu-Natal. The district borders with the Eastern Cape Province, Lesotho and the Drakensburg Mountains. The district is made up of four local municipalities which are Dr Nkosazana Dlamini-Zuma (formally Ingwe and Kwa Sani), Umzimkhulu, Greater Kokstad and Ubuhlebezwe Local Municipalities (see Map 1). Each Local Municipality has a main town; however, there are other small towns that fall within the district's jurisdiction. Table 1 illustrates the main towns per municipality.

Table 1: Municipal Main towns

| Local Municipality | Main town |
|----------------------------------|------------------|
| Ubuhlebezwe | Ixopo |
| Greater Kokstad | Kokstad |
| Dr Nkosazana Dlamini-Zuma | Underberg/Bulwer |
| Umzimkhulu | Umzimkhulu |

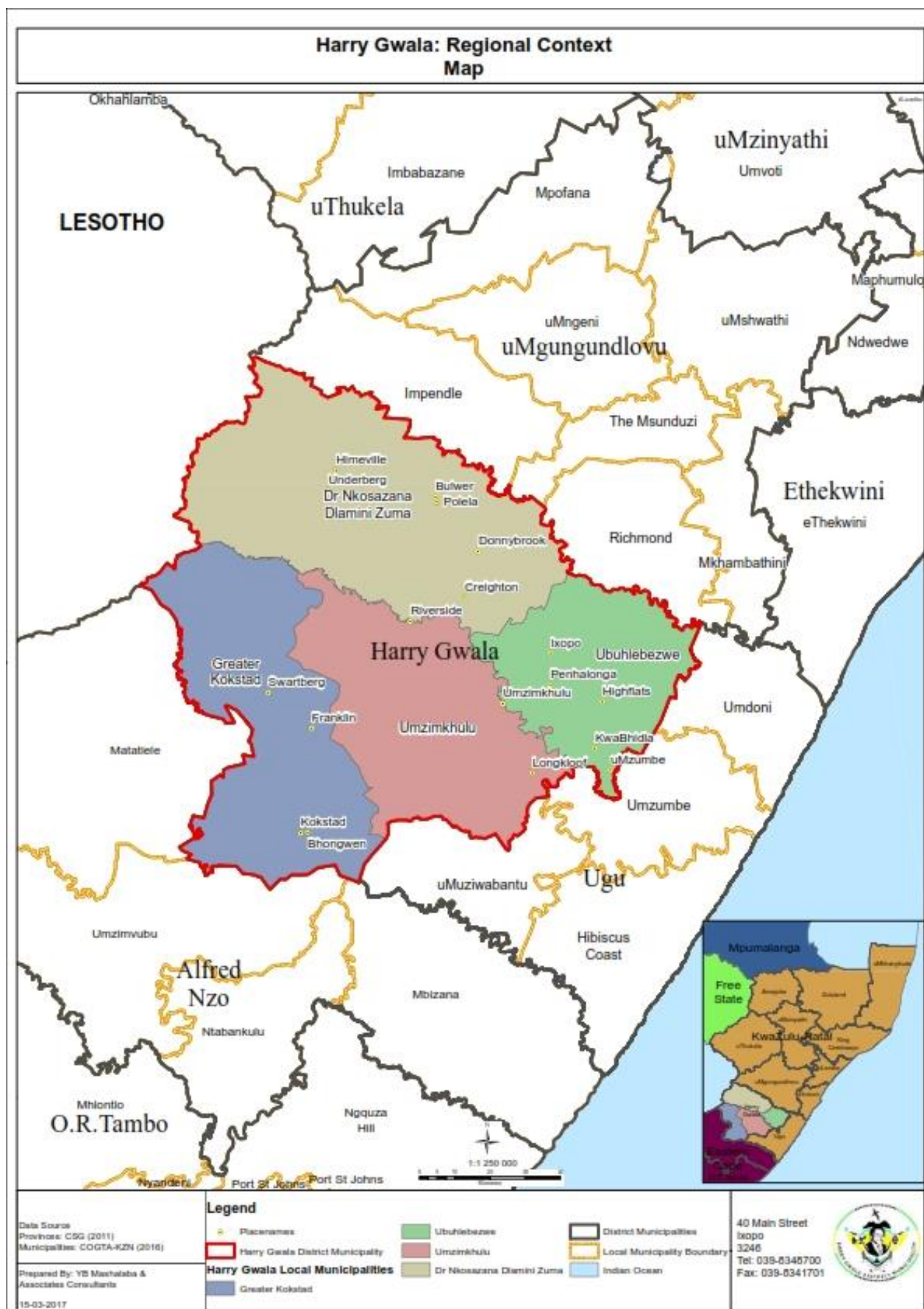
Characterised by a rural landscape, Harry Gwala is known for its rich high quality agricultural soils, abundant water and climate extremes which make the area more viable for dairy farming. The natural environment has proven to be a tourism attraction destination offering ecotourism and adventure tourism. Main employment sectors within the district include but are not limited to community services, agriculture, trade, retail and construction.

1.2. PURPOSE

A task that each municipality in South Africa faces is the driving of spatial transformation to redress past imbalances and ensure current and future development is inclusive and is socially and environmentally sound. In an effort to aid this type of development, the Spatial Planning and Land Use Management Act (SPLUMA Act 16 of 2013) was introduced to assist municipalities in striving towards attaining efficient planning and land use management. SPLUMA is centered on the following five (5) key principles:

- Spatial Justice;
- Spatial Sustainability;
- Efficiency;
- Spatial Resilience;
- Good Administration.

The Municipal System Act 32 of 2000 (Section 26(e)) dictates that municipalities must develop a Spatial Development Frameworks and include it as an essential component of its IDP. To vest concentration upon the development of realistic and measurable economic, social, economic and environmental assessments of the municipality which shall consequently assist with the land use planning, management and development of the municipalities built environment. Municipalities are obligated and bound by law to incorporate the prospects of SPLUMA Act 16 of 2013 (Chapter 4) and the principles of the Municipal Planning and Performance Management Regulation (GN R 796 of 2001) within the SDF.



2. POLICY AND LEGISLATIVE FRAMEWORK

This section provides an overview of the relevant legislation, policies and planning frameworks for national, provincial, and municipal government that have an impact on and direct spatial development in South Africa. For each piece of legislation provided, a special reference is made to Harry Gwala District Municipality.

2.1. SUSTAINABLE DEVELOPMENT GOALS 2016

The Sustainable Development Goals (SDGs) have since 2016 replaced the Millennium Development Goals, which were set to be achieved in 2015. The SDG's are a set of 17 goals to be achieved in 2030, which deal with key systematic barriers to sustainable development that were not considered in the MDGs. The SDGs are indicated below:

- Goal 1: End poverty in all its forms everywhere
- Goal 2: End hunger, achieve food security and improved nutrition, and promote sustainable agriculture
- Goal 3: Ensure healthy lives and promote well-being for all at all ages
- Goal 4: Ensure inclusive and equitable quality education and promote life-long learning opportunities for all
- Goal 5: Achieve gender equality and empower all women and girls
- Goal 6: Ensure availability and sustainable management of water and sanitation for all
- Goal 7: Ensure access to affordable, reliable, sustainable, and modern energy for all
- Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
- Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.
- Goal 10: Reduce inequality within and among countries
- Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable
- Goal 12: Ensure sustainable consumption and production patterns
- Goal 13: Take urgent action to combat climate change and its impacts

- Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development
- Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
- Goal 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
- Goal 17: Strengthen the means of implementation and revitalize the global partnership for sustainable development

The SDGs are part of an international effort to address some of the most pertinent global issues. Some of the intentions of the MDGs are reinforced into the SDGs, which should be translated in the SDF.

2.2. NATIONAL DIRECTIVES

Table 2 outlines and focuses on the relevant National Directives for the Harry Gwala District SDF.

Table 2: National Directives

| GUIDING FRAMEWORK | STRATEGIC CONTEXT |
|---|---|
| The Constitution of the Republic of South Africa (Act 108 of 1996) | <p>The Constitution is the supreme law of the country. The Bill of Rights protects the rights of all people in our country and affirms the democratic values of human dignity, equality and freedom. In terms of the Constitution, the following Sections are relevant to the structure plan. Sections 15(1) (e), 152 and 195(e), of the Constitution mandates municipalities to involve the public in policy making process, and clarifies the mandate of municipalities to ensure provision of basic services; promote social and economic development; and promote safe and healthy environments. In addition, Section 25(4) (a) clarifies the commitment to land reform, while 25(8) mandates the state to acquire land and water for necessary reform. In terms of housing, Section 26 of the Constitution provides all citizens with the right to adequate housing, while mandating the state to develop necessary legislation and policy to ensure this. The same goes for other basic needs and social services such as healthcare (Sec. 27) and education (Sec. 29).</p> <p>IMPLICATIONS FOR THE SDF:</p> |

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| | <p>SDF contributes towards the realization of the objectives of the Constitution through the provision of guidelines regarding the types of developments and improvements to be made in prioritised areas. These may range from the provision of adequate services, the promotion of social and economic development as well as the preservation and development of sustainable and defensible environments.</p> |
| <p>State of the Nation Address 2017</p> | <p>Key points from the State of the Nation address by his excellency President Jacob G Zuma at the Joint sitting of Parliament in Cape Town (February 2017) are listed:</p> <ul style="list-style-type: none"> • Nine (9) Point Plan – Key policy framework for economic growth and job creation. Focus areas include: <ul style="list-style-type: none"> ○ Industrialisation ○ mining and beneficiation ○ agriculture and agro-processing ○ energy ○ small, medium and micro enterprises (SMMEs) ○ managing workplace conflict ○ attracting investments ○ growing the oceans economy and tourism. • The Department of Economic Development to bring forward legislation to Cabinet that will seek to amend the Competition Act, 1998 (Act 89 of 1998). To create a more inclusive economy, with reduced monopolies. Legislation is then to be tabled for consideration by Parliament. • Radical Economic Transformation - The aim is to open the economy to new players, give black South Africans opportunities in the economy making the economy more dynamic, competitive and inclusive. • Less than 5% of the property sector is owned or managed by black Africans. The Department of Human Settlements needs to publish a draft Property Practitioners Bill for public comment with the purpose of establishing a more inclusive, representative sector. • Department of Social Development building new public transport centres – Northern Cape, North West, Limpopo, Free State, and Eastern Cape. <p>IMPLICATIONS FOR THE SDF:</p> <p>The SDF is bound by the governmental imperatives to create an inclusive economy, thereby identifying areas which have potential growth and development to enhance fundamental transformation within the identified municipal areas.</p> |
| <p>Budget Speech 2017</p> | <p>Key points from Finance Minister's February 2017 budget speech, in relation to public infrastructure investments are listed below:</p> |

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| | <ul style="list-style-type: none"> • The Provincial Roads Maintenance Grant is allocated R10.8 billion in 2017/18, taking into account the increase in road traffic volumes. • SANRAL received R15.4 billion over the period ahead for strengthening and maintenance of the national road network, which now stands at 21 946 kilometres. • The Department of Telecommunications and Postal Services received R1.9 billion over the medium term to invest in high-speed internet connections in public buildings and schools in eight NHI pilot districts. • The Passenger Rail Agency of South Africa continues to implement its modernisation and rolling stock renewal programme. Over the medium term, R16.7 billion is allocated for 70 new train-sets for Metrorail. • The development and operation of integrated public transport networks, funded through the Public Transport Network Grant receives R6.2 billion in 2017/18. • To support higher density housing, subsidies for social housing have been rationalised and R600 million over the medium term is reprioritised to the Social Housing Regulatory Authority for investment in rental housing units. <p>Alignment to the SDF:</p> <p>The Budget speech provides financial support to infrastructure, transportation and housing investments, which are the key fundamental spatial elements embodied within the District SDF. As such, budget is therefore already allocated for spatial projects to be developed in prioritized areas.</p> |
| Spatial Planning and Land Use Management Act (Act 16 Of 2013) | <p>The Spatial Planning and Land Use Management Act (SPLUMA) plays a significant role in the spatial planning and land use management of the country. The Act provides development principles and norms and standards as well as frameworks on land use therefore falling within section 146 of the Constitution. The following five (5) principles have been outlined in the act for spatial planning, land development and land use management:</p> <ul style="list-style-type: none"> • Spatial Justice • Spatial Sustainability • Efficiency • Spatial Resilience • Good Administration <p>IMPLICATIONS FOR THE SDF:</p> <p>SPLUMA instructs national and provincial government to prepare Spatial Development Frameworks. Municipalities are therefore obligated by this act to ensure that the preparation of the IDPs incorporates Spatial Development Frameworks to outline the current status of each municipality as well as the</p> |

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| | provision of strategic spatial proposals based on the above mentioned spatial principles. |
| Intergovernmental Relations Framework Act (No 13 of 2005) | <p>The Intergovernmental Relations Framework Act was established in relation to the constitutional mandate in section 41 (2) of the South African Constitution. The IGR was established to provide a legal framework to guide relations between the different spheres of government. The main focus areas of the act are:</p> <ul style="list-style-type: none"> • To provide principles for Intergovernmental relations in the country • To regulate intergovernmental forums • To provide guidelines for internal intergovernmental procedures • To provide a framework to assist in the settlement of disputes between the different spheres of government <p>IMPLICATIONS FOR THE SDF</p> <p>Where corridors are proposed by the SDF across municipal boundaries, the development of such corridors should be jointly planned by the affected municipalities to ensure integration, successful implementation and to reduce the potential for conflict. The intergovernmental forums created through the Intergovernmental Relations Act can be used to achieve this.</p> |
| National Development Plan: Vision for 2030 | <p>The National Planning Commission has developed a National Development Plan vision 2030 (2011) which concentrations on enabling sustainable and inclusive development. This Plan provides a comprehensive view on the demographic trends and changes within the country. Critical challenges stated include poor quality education, poorly located and under maintained infrastructure, faulty spatial patterns and lack of integration within communities. Other challenges are stated as high unemployment levels, an economy that is highly resource intensive and poor quality of public services. The key developments of all South African Municipalities should be based on the provision of the following elements:</p> <ul style="list-style-type: none"> • Economy and employment • Economic infrastructure • Low carbon economy • Inclusive rural economy • Positioning South Africa in the world market • Human settlements • Education, innovation & training • Health • Social protection • Safety within communities • Fostering capability within the state • Promoting accountability and fighting corruption |

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| | <p>IMPLICATIONS FOR THE SDF:</p> <p>The objectives of the SDF is out to uphold the standards and elements outlined in the NDP to ensure realization of spatial objectives set, based on the challenges and opportunities identified within the SDF areas.</p> |
| <p>National Environment Management Act (No 107 of 1998)</p> | <p>With regards to the provision of the National Environmental Management Act, the following directives are significant for all development:</p> <ul style="list-style-type: none"> • Developments should be socially and economically viable, while being environmentally just; • The protection of natural resources and maintenance of natural systems should always be prioritised; • There should be equal access to natural resources, benefits and services to meet the human needs; as well as • Precautionary measures should be considered when permission is granted for new developments. <p>IMPLICATIONS FOR THE SDF:</p> <p>This act obligates municipalities to create rural and urban spaces which enhance economic opportunities and environments, while preserving the environment for future generation. As such, the SDF ought to take cognisance to the NEMA regulation when developing spatial proposals for all municipal areas.</p> |
| <p>National Land Transport Act (No 5 of 2009)</p> | <p>The National Transport Act 5 of (2009) provides the regulatory framework for transportation across the country. The National Transport Act binds public entities (all three spheres of government) to align their development plans with the following aspects:</p> <ul style="list-style-type: none"> • Provision of a written consent to the planning authority with regard to any land use intensification • Conduction of a Traffic Impact and Public Transport Assessment before any development can take place in an area governed by a planning authority • The costs involved in the upgrading of transportation infrastructure should be carried out by the planning authority unless an agreement has been reached with the developer • No action may be taken that would have the result of substantially decreasing the quantity or availability of land transport infrastructure or services, unless the owner of the land on which the infrastructure is situated, or the holder of the relevant operating license, as the case may be, has notified the relevant planning authority in writing, not less than 30 days before the action is taken. |

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| | <ul style="list-style-type: none"> Land Use applications should be accompanied by Traffic Impact Assessments and Public Transport Assessments with sufficient information to determine the impact of such application on transportation plans and services <p>IMPLICATIONS FOR THE SDF:</p> <p>The transportation plan within the SDF will carry out the governmental mandate based on the aforementioned aspects to ensure efficiency with regards to the conduction of; transportation impact studies, availability of infrastructure and land use intensification in prioritized areas of relevant local municipalities.</p> |
| New Growth Path 2010 | <p>The New Growth Path was established to address the economic downturn since 2008 with the aim of to grow the economy by 7%, create 37000 jobs per annum and create 5 million additional jobs by 2020. The NGP economic development focus areas are as follows:</p> <ul style="list-style-type: none"> Employment creation; Cross-cutting development policy package for growth, decent work and equity; Proposals for macro-economic policy, micro-economic policy, and social partners; Resources required to support economic development; Incorporation of stakeholders in the economy through institutional arrangements. <p>IMPLICATIONS FOR THE SDF:</p> <p>The SDF needs to ensure the creation of rural-urban linkages within the municipality in order to bridge the development and economic gap between poorer rural areas within the municipality and the urban areas.</p> |
| National Housing Act 1997 (act.107 of 1997) & National Housing Code 2009 | <p>The National Housing Act 107 of 1997 reiterates the Constitutional right to access adequate housing and identifies the state's legal responsibility to a sustainable housing development process. The act identifies general principles applicable to housing development. The Act provides the following recommendations concerning housing provision:</p> <ul style="list-style-type: none"> Prioritise the housing needs of the poor; Provide a wide choice of housing and tenure options; Be economically, fiscally, socially and financially affordable and sustainable; Focus on integrated development planning; Consider and address the impact on the environment; Socially and economically viable communities; Safe and healthy living conditions; |

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| | <ul style="list-style-type: none"> • Racial, social, economic and physical integration in urban and rural areas; • Effective functioning of the housing market and level playing fields; • Higher densities and the economical utilisation of land and services. <p>IMPLICATIONS FOR THE SDF:</p> <p>The SDF is out to be aligned to both the National Housing Act 107 of 1997 and the National Housing Code for the purpose of ensuring the provision of sustainable human settlements as well as strengthening spatial integration within the rural and urban spectrum.</p> |
| Breaking New Ground Policy 2004 | <p>The Breaking New Ground Policy 2004 was adopted by government as a framework policy which focuses on a holistic approach to developing human settlements, including the provision of social and economic infrastructure. The BNG Policy prescribes that housing delivery should comply with the following objectives:</p> <ul style="list-style-type: none"> • Safe and secure environments; • Adequate access to economic opportunities; • A mix of safe and secure housing and tenure types; • Reliable and affordable basic services, educational, entertainment, health, welfare and police services within a Multi-purpose cluster concept; • Compact, mixed land use, diverse, pedestrian friendly, and promotes good quality of life; • Low-income housing in close proximity to areas of opportunity; • Integrated, functional, and environmentally sustainable human settlements, towns and cities; • Social (Medium-Density) Housing; • Alternative technology and design. <p>IMPLICATIONS FOR THE SDF:</p> <p>The SDF ought to be aligned with the BNG policy in order to identify potential sites for the development of affordable housing within a reasonable distance to social and economic opportunities.</p> |
| Municipal Systems Act 2000 (Act 32 of 2000) | <p>The Municipal Systems Act 32 of 2000 stipulates that all municipalities must prepare a Spatial Development Framework (SDF) as an essential component of the Integrated Development Plan (IDP). The IDP must therefore reflect a Spatial Development Framework and must include the provision of basic guidelines for land use management systems for the municipality.</p> <p>IMPLICATIONS FOR THE SDF:</p> |

| | |
|--|--|
| | The SDF is prepared under the set vision of the municipal IDP. Strategic Spatial Proposals are therefore guided by the MSA mandate for the preparation of SDF's as a component of the IDP. |
|--|--|

2.2. PROVINCIAL DIRECTIVES

Table 3 focuses on the relevant Provincial Directives for the Harry Gwala District SDF.

Table 3: Provincial Directives

| GUIDING FRAMEWORK | STRATEGIC CONTEXT |
|---|---|
| KwaZulu-Natal Provincial Spatial Development Framework (PSDF 2015) | <p>The main focus areas of the KwaZulu-Natal Provincial SDF are:</p> <ul style="list-style-type: none"> • Agriculture • Industry • Tourism • Service sector <p>According to the KwaZulu-Natal Provincial SDF there are several key potential interventions for Harry Gwala District Municipality. These are:</p> <ul style="list-style-type: none"> • High value agriculture for export • Umzimkhulu Dam • Eco, battlefields and cultural heritage tourism routes • Ukhahlamba – Maluti TFCA • Agro – processing incorporating bio – fuels • Small town regeneration • Rural service centres • ECD centre development • Centres for the disabled • Centres for senior citizens • Substance abuse rehabilitation centers • School greening <p>IMPLICATIONS FOR THE SDF:</p> <p>The PSDF provides guidance to municipal Spatial Development Frameworks. The municipal SDF needs to be aligned to the PSDF.</p> |

| | |
|--|---|
| KwaZulu-Natal Provincial Growth and Development Strategy 2016 | <p>The KwaZulu Natal Provincial Growth and Development Strategy (PGDS) is the main strategy directing growth and development within the province. The KwaZulu-Natal PGDS is aligned to the national development objectives of the NDP and incorporates those of the National Nine Point Plan. According to the KwaZulu-Natal PGDS by 2035 the province aims to be “a province with a healthy, secure and skilled population, living in dignity and harmony acting as a gateway to Africa and the World”.</p> <p>The KwaZulu-Natal PGDS has identified certain strategic goals that are regarded as key to stimulate economic growth and development in the area.</p> <ul style="list-style-type: none"> • Inclusive economic growth • Human resource development • Human and community development • Infrastructure development • Environmental sustainability • Governance and Policy • Spatial equity <p>IMPLICATIONS FOR THE SDF:</p> <p>The implications for the Harry Gwala District SDF are to ensure alignment to the provincial principles, which are:</p> <ul style="list-style-type: none"> • Strengthening governance and service delivery, • Economic development and job creation • Integrating investment in community infrastructure <p>Fighting poverty and protecting vulnerable groups in society.</p> |
| State of the Province Address 2017 | <p>The key aspects addressed by the Premier during the SOPA are stated below:</p> <ul style="list-style-type: none"> • The successful adoption of KZN 2016 PGDS and 2016/17 PGDP • Focus on Radical Economic Transformation to promote economic inclusivity, job creation and poverty reduction. Focus on tourism, automotive industry, mining, clothing and textile, manufacturing and development of township economies • The Premier acknowledged that quicker progress is required when providing title deeds to land reform beneficiaries – allowing beneficiaries to enter the main stream economy • The province has embarked on the Radical Agrarian Socio-Economic Programme to improve food production supply for emerging underprivileged farmers by attending to structural barriers related to existing value chains. • Over R500 million spent on agricultural projects. Such as: <ul style="list-style-type: none"> ◦ refurbishments and extension of irrigation schemes ◦ building of an abattoir in Bambanana |

| | |
|--|---|
| | <ul style="list-style-type: none"> ○ development of an amarula jam processing plant and pack house at Manguze ○ developing rural access roads ○ upgrading the Foot and Mouth disease Redline Fence • Feasibility study to develop Richards Bay Industrial Development Zone as an oil and gas hub to be completed next year. • Province adopted a Business support, retention and extension programme, which aims to assist weak businesses through industrial policy support, to support new businesses against economic shocks and support existing businesses through creating an environment that can attract investment. <p>IMPLICATION FOR THE SDF:</p> <p>The SDF is compelled by government to provide economic development and spatial direction for local municipal areas. Municipalities should review their SDF's taking cognisance of information provided within the SOPA 2017 regarding future developments that may impact the municipality.</p> |
|--|---|

2.3. MUNICIPAL DIRECTIVES

Table 4 focuses on the relevant Municipal Directives for the Harry Gwala District SDF.

Table 4: Municipal Directives

| GUIDING FRAMEWORK | STRATEGIC CONTEXT |
|---|--|
| Harry Gwala District IDP 2016/2017 | <p>The vision for the Harry Gwala District Municipality is that “by 2030 Harry Gwala will be a leading water services provider in the KZN Province with its communities benefitting from a vibrant agriculture and tourism sector”. The HGDM has several key goals that it aims to achieve. These being:</p> <ul style="list-style-type: none"> • Basic Service Delivery • Municipal transformation and Institutional Development • Good governance and public participation • Municipal financial viability and management <p>IMPLICATIONS FOR THE SDF:</p> <p>The SDF ought to be aligned to the vision of the municipality in order to ensure that the development of spatial objectives and proposals are correlated to the challenges and opportunities identified within the IDP.</p> |
| Municipal Planning and Performance | <p>The Performance Management Regulations entail a framework that represents the specific processes that needs to be conducted by the municipality.</p> |

| | |
|---|--|
| Management Regulations | <p>IMPLICATIONS FOR THE SDF:</p> <p>Section 2(4) of the Local Government: Municipal Planning and Performance Management Regulations provide that an SDF should:</p> <ul style="list-style-type: none"> • Give effect to the SPLUMA principles; • Set out objectives that reflect the desired spatial form of the municipality; • Contain strategies and policies to achieve the objectives and which should indicate desired patterns of land use; • Address the spatial reconstruction; • Provide strategic guidance regarding the location and nature of development; • Set out basic guidelines for a land use management system in the municipality; • Set out a Capital Investment Framework (CIF) for the municipality's development programs; • Contain a strategic assessment of the environmental impact of the SDF; • Identify programs and projects for the development of land within the municipality; • Be aligned with the spatial development frameworks reflected in the integrated development plans of neighbouring municipalities; • Provide a plan of the desired spatial form of the municipality, which should: <ul style="list-style-type: none"> ◦ indicate where public and private land development and infrastructure investment should take place; ◦ indicate desired or undesired utilisation of space in a particular area; ◦ delineate an urban edge; ◦ identify areas for strategic intervention; and ◦ Indicate priority spending areas. |
| Harry Gwala District Spatial Development Framework (2015/16) | <p>The vision of the IDP is aligned with that of the current SDF which is accompanied by the following set objectives:</p> <ul style="list-style-type: none"> • Base future development guidance on a good understanding of the existing development problems and opportunities • Provide strategic guidance for such development • Provide a spatial reflection of the needs and priorities established in the IDP • Ensure alignment with SDF's of the Local Municipalities within the District as well as the surrounding neighbouring District Municipalities <p>Alignment to the SDF</p> <p>This SDF is the review of the current SDF to ensure that the set five (5) year plan (2014 to 2018) of the district is achieved.</p> |

**Harry Gwala District
Growth and
Development Plan
2014**

The Harry Gwala District Growth and Development Plan 2014, in its current form is an extension of the KZN PGDP. The HGDGDP 2014 envisages that "By 2030, Growth and Development in Harry Gwala District will have significantly improved the quality of life in the area."

In order to achieve this, the HGDGDP has identified four key sectors that can drive growth in the district and develop the economy. These are:

- Agriculture and agro industries
- Tourism
- Public Sector Services
- Strategic Infrastructure delivery

In order to ensure extensive growth of the economy, within each sector four key objectives should be implemented. These are listed below:

- Skills development
- SMME development
- Spatial Restructuring
- Research and Innovation

Alignment to the SDF

The Growth and Development Plan provides insight on the path the district is taking regarding economic growth. This will then influence the SDF development strategies and proposals.

3. SITUATIONAL ANALYSIS

3.1. BIOPHYSICAL ANALYSIS

3.1.1. Climate

Temperatures vary with altitude, leaving the climate of Harry Gwala with low temperatures that is influenced by the Drakensberg Mountain range to the west. Harry Gwala District Municipality is a summer rainfall area characterised by mean annual rainfall of 900-1 400mm (see Map 2).

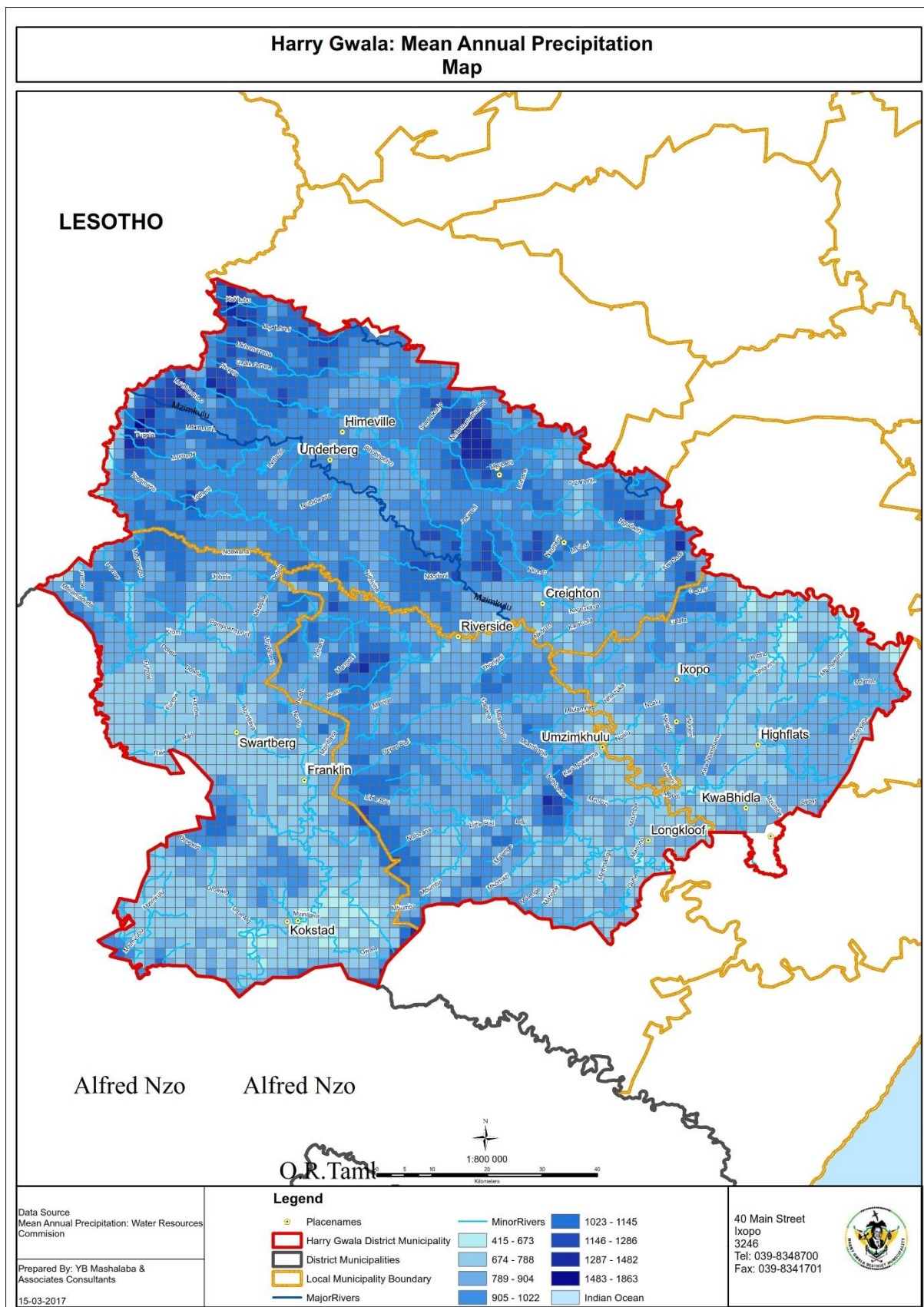
This is largely influenced by cold fronts coming from the south-west, which are often followed by dry winds from the north and north-west. The district is also characterised by snowfalls, mainly along the western boundary. Snowfall normally blankets the summit for approximately a week, and takes a few days to melt. As such, the flora in the area has adapted to these harsh conditions, and thrives in areas prone to frost.

3.1.2. Hydrology

The hydrology of this area consists of the following river tributaries:

- Loteni river
- Nzinga river
- Mkomazane river
- Elands river
- Xobho rivers

These rivers flow into the Mkomazi River. The direction of the flow of the rivers is in a south-easterly direction where it enters the Indian Ocean near the town Umkomaas, south of Durban. The source of the rivers in KwaZulu-Natal is the Drakensberg, the highlands of the Free State and the grasslands on the far north. The source of the Mkomazi River has an elevation of about 3000m above sea level in the Drakensberg Mountains. The Ngwangwane catchment comprises of vital conservation with vital forests and wetlands. Map 3 depicts the hydrological aspects within Harry Gwala District Municipality.



Map 2: Annual Mean Precipitation
Source: Water Resources Commission



Map 3: Hydrology
Source: SANBI (2012)

3.1.3. Geology

Harry Gwala District Municipality is characterised by various geological material that is comprised of the following groups:

- The Natal Group Sandstone
- The Dwyka Group Tillite
- The Drakensburg

The Natal Group Sandstone forms the most beautiful appearance of the vertical cliff in the central and Southern part of the province. The Eastern part of the Harry Gwala District Municipality comprises of granites, gneisses and schists and it is characterised by minerals such as feldspar, hornblende and mica. The older weathered granite and quartzite produced the basal layers and the sandy material which produced these strata that laid down different layers of sediments. The upper part of the Natal Group Sandstone comprises of micaceous, sandy beds of different grain sizes (Biodiversity Plan Sector, 2014).

The Dwyka Group Tillite on the Eastern part comprises of rock types which are granite, gneiss, quartzite, sandstone and orthoquartzite. Above the Dwyka lies the Eccca shale and sandstone in extensive bodies of fresh water during cold temperatures. This vital sandstone of Eccca group extends from the Thukela River to the west of Greytown, Pietermaritzburg and Ixopolo as far as the Umzimkhulu River (Biodiversity Plan Sector, 2014). The Drakensburg comprises of the Molteno, Red beds, Caves Stone and basalt formations. Map 4 indicates the geological characteristics within Harry Gwala District Municipality.

3.1.4. Protected Areas

Protected areas is any area proclaimed as such in terms of section or listed in the Second Schedule of the KwaZulu-Natal Nature Conservation Management Act 1997 (Act No. 9 of 1997) or any of the protected areas referred to in section 9 of the National Environmental Management; Protected Areas Act 2003 (Act No. 57 of 2003). In terms of the Harry Gwala District Municipality Strategic Environmental Assessment 2013 (SEA), the following areas in Table 5 within the Harry Gwala District Municipality are considered as protected areas. Map 5 indicates the protected areas within Harry Gwala District Municipality.

Table 5: Protected Areas

| Conservation Area Category | Name | Area (ha) |
|----------------------------|------------------------|-----------|
| Conservancies | Mahwaqa Mountain Oribi | 19484 |
| | Two Rivers | 27964 |
| | Kokstad Research Farm | 2267 |
| | Hlabeni Mondli | 5761 |
| | Comrie/Sappi | 5485 |

| | | |
|---|-------------------------|-------|
| | Donnybrook Mondl | 3412 |
| | Glenbain/Sappi | 8530 |
| | Ka Hele | 1287 |
| | Maxwell/Sappi | 1563 |
| | Mahelle/Mondi | 1563 |
| | Ixopo/Sappi | 14170 |
| | The Valley | 9578 |
| | Nhlavini Game Ranches | 14361 |
| | Ngwempisi | 12632 |
| | Masonite | 1424 |
| | Mondi Ngulu | 2764 |
| | Sappi Highfl8ats | 10557 |
| | Sappi | 2344 |
| | Tendeni | 2136 |
| | Masonite Rockvale | 1579 |
| | Sappi | 1266 |
| | Mahwaqa Mountain Oribi | 19484 |
| | Two Rivers | 27964 |
| | Kokstad Research Farm | 2267 |
| | Hlabeni Mondl | 5761 |
| | Comrie/Sappi | 5485 |
| Nature Reserves and Game Ranches | Highover Nature Reserve | 1501 |
| | Highover Nature Reserve | 1501 |
| | Penwan Country Lodge | 1134 |
| | Duma Manzi | 4914 |

Source: Sisonke District Municipality Strategic Environmental Assessment 2013.

In terms of the Harry Gwala District Municipality Strategic Environmental Assessment 2013 (SEA), the following areas in Table 6 are considered as significant conservation areas.

Table 6: Sites of Conservation Significance

| Sites of Conservation Significance | Name |
|------------------------------------|------------------------|
| | Two Rivers (Mt Currie) |
| | Hebron Wetland |
| | Epsom Vlei |
| | Highlands |

| | |
|--|------------------------------|
| | Lammermoor |
| | Sangwana Mountain |
| | Mzimkulwana Gorge |
| | Giants Cup Wilderness |
| | Faraway |
| | The Duffryn Oribi |
| | Citeaux |
| | Dublin Wetland |
| | Scaffel Dam Wetland |
| | Clouds |
| | Nafika Catchment |
| | Cycad Colony |
| | Springfield Catchment |
| | Mingay's Valley |
| | Tatton Forest |
| | Clairmont Bulwer |
| | Mount Shannon Nature Reserve |
| | Corrie Bottle Brush |
| | Donny Brook Vlei |
| | Epsom Indigenous Forest |
| | Epsom Wetland 2 |
| | Corrie Bottle Brush |
| | Donny Brook Vlei |
| | Epsom Indigenous Forest |
| | Epsom Wetland 2 |
| | Mosbank Wetland |
| | Soada Falls |
| | Imfne Forest |
| | Lilydale |
| | Carlslogie Bush |
| | Gaunu Falls |
| | Sculcoates Valley |
| | Cragie Lee |
| | Linford valley |
| | Crystal Manor Valley |
| | Sutton Wetland |

| | |
|--|---------------------------|
| | Echo Valley |
| | Wolseley |
| | Longlands |
| | Lonely Dell |
| | Gloria |
| | Kia Ora |
| | Dawn Valley |
| | Ponderosa |
| | Downside |
| | Rockvale Mountain Wetland |
| | Flufftail Valley |
| | Mgodi Valley |
| | Oribi Valley |
| | Avonmore Wetland |
| | Erskine Wetland |
| | Aloe Valley |
| | Freeland Grassland Site |
| | Crofton Dam and Wetland |
| | Masonite Rockvale |

Source: Sisonke District Municipality Strategic Environmental Assessment 2013

The following Projects forms part of the protected areas in Harry Gwala District Municipality:

a) Maloti-Drakensberg Transfrontier Project

The Maloti Drakensberg Mountains comprises of approximately 300km long alpine and montane zone along the southern, eastern and northern Lesotho and South Africa. This area is characterised by internationally important plants and animal biodiversity with a unique habitats and high level of endemism. Maloti Drakensberg consists of the greatest gallery of rock art with numerous sites and images painted by the Bushmen. The Maloti Drakensberg deals with conservation and community development matters and a portion of this area falls under Harry Gwala District Municipality.

b) uKhahlamba-Drakensberg Park World Heritage Site

The uKhahlamba-Drakensberg Park World Heritage Site operated by Harry Gwala and the EKZNW. It comprises of natural landscapes of the Drakensberg Park which consist of many caves and rock shelters with paintings made by the San people approximately over 400 years ago.

c) The Ngwagwane catchment

The Ngwagwane catchment has been initiated by the Ezemvelo KwaZulu-Natal Wildlife due to threatened natural environment. The Ngwagwane catchment comprises of important grasslands, wetlands and indigenous forest and provides opportunity for biodiversity conservation. The Ngwagwane catchment consists of important reserves of natural ecological assets. The development of power lines, human settlements and commercial timber within the area results in natural environment disturbance whereby vegetation and species composition is altered.

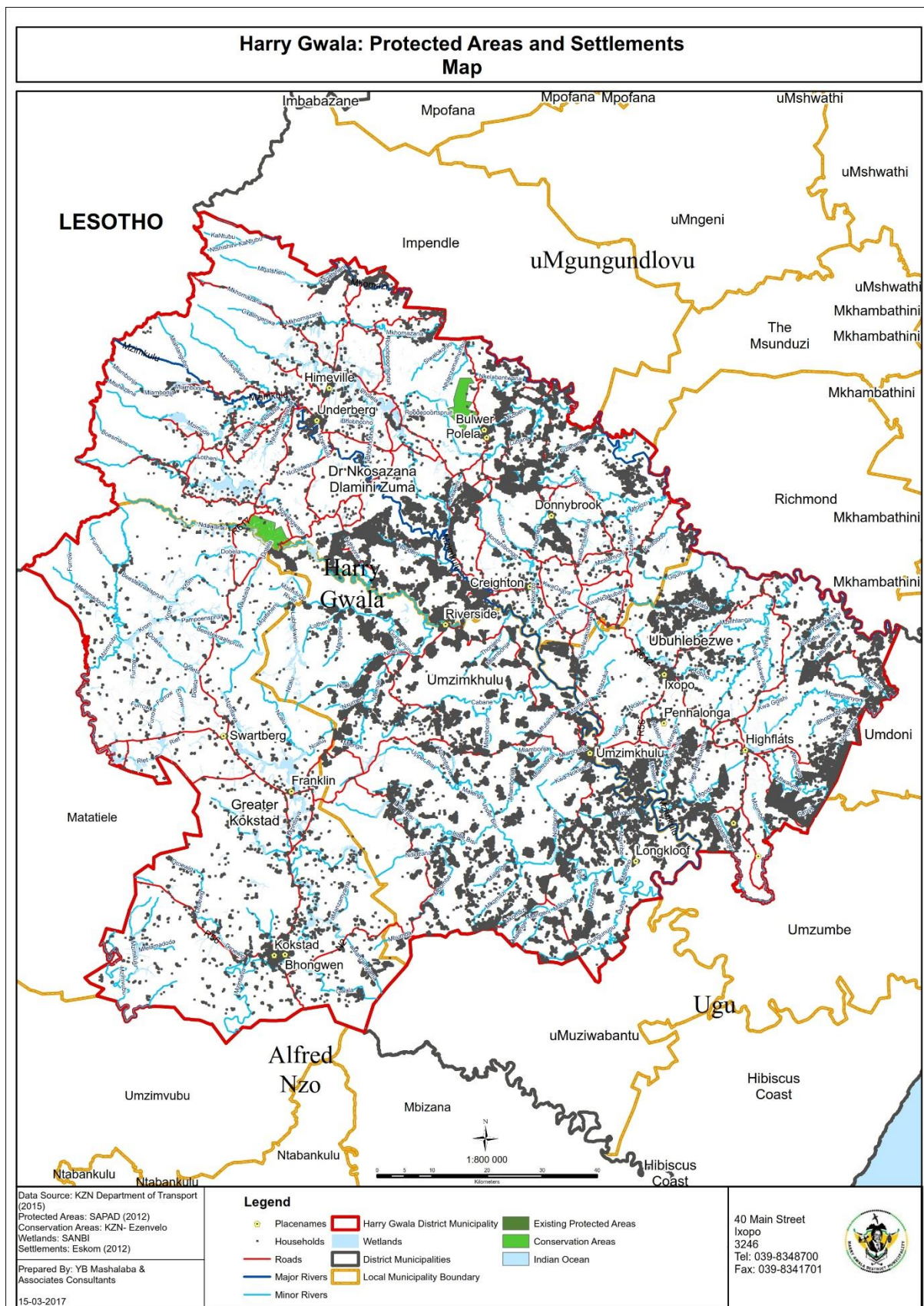
3.1.5. Ecological Corridors

Ecological corridors are vital in aiding the natural ecosystem and species in adaptation to climate change. The geographical distribution of species will fail to adapt to unstable climatic conditions due to climate change and this will lead to extinction of some species. The survival of various species depends on the ability of these species to adapt to the unstable climatic condition characterising climate change. Ecological corridors identify opportunities to provide linkages in the landscapes and enables species to move to areas that are habitable in order to survive.

Map 6 illustrates the ecological corridors found within Harry Gwala District Municipality. A large ecological corridor can be found near Kokstad and in the south of the municipality bordering Alfred Nzo municipality. Another large ecological corridor can be found spanning the length of the Umzimkhulu municipality. The majority of the protected areas within the municipality fall in the north-western part of the municipality, forming a natural border with the Kingdom of Lesotho. The remaining protected areas are scattered throughout the municipality. A nature reserve is found in the north of the municipality, while a protected environment can be found near the centre.



Map 4: Geology
Source: Council for Geoscience



Map 5: Protected Areas
 Source: SAPAD (2012)

[illegible]

Map 6: Ecological Corridors
Source: KZN-Ezemvelo

3.1.6. Vegetation

Harry Gwala District Municipality comprises of various vegetation types and distributions which are grouped into the following five biomes:

- Forest;
- Grassland;
- Savanna
- Azonal Vegetation

The base for defining the extent of species-specific habitat that supports a wide variety of biodiversity is provided in terms of these biomes in Table 7 and depicted on Map 7.

Table 7: Biomes within Harry Gwala District Municipality

| Biomes | Status of the Biomes |
|---|--------------------------------------|
| Forest biome | Near-Threatened |
| Grasslands (Near-Threatened) | |
| • Midlands Mistbelt Grasslands | Critically Endangered |
| • Southern KwaZulu-Natal Moist Grasslands | Endangered |
| Savannah | Endangered and Critically Endangered |

Source: Harry Gwala IDP, 2015/16

3.1.1.1. SAVANNAH

Savannah biome comprises of mainly tall 'thatch' which includes the following:

- Themeda
- Triandra,
- Hyparrhenia species
- Cymbopogon grass

These are dominated by Paperbark trees (*Acacia sieberiana*). These biomes are found throughout the north-western areas of the Midlands. The International Union for Conservation of Nature is the main authority on the conservation status of species globally. The status of all species is determined using the categories determined by ICUN categories. Table 8 depicts IUCN Red List of Threatened Species.

Table 8: ICUN Red List of Threatened Species

| ICUN Categories | Explanation |
|-----------------------------------|---|
| Critically Endangered (CR) | <ul style="list-style-type: none"> species are considered to be facing an extremely high risk of extinction in the wild |
| Endangered (EN) | <ul style="list-style-type: none"> species considered to be facing a very high risk of extinction in the wild in the near future |
| Vulnerable (VU) | <ul style="list-style-type: none"> species considered to be facing a high risk of extinction in the wild in the medium-term future |
| Near Threatened (NT) | <ul style="list-style-type: none"> species do not qualify for the threatened category but is close to be classified under one of the categories in the near future |
| Data Deficient (DD) | <ul style="list-style-type: none"> the data are inadequate to determine the degree of threat faced by a taxon to determine the appropriate listing |

Source: International Union for Conservation of Nature

3.1.1.2. FAUNA

There is variety of plant species listed in the Red Data that exists within the Harry Gwala District Municipality. These fauna species are classified as critical Endangered, Endangered, Vulnerable, Near Threatened, Data Deficient and Rare species. Table 9 lists the vegetation types with Harry Gwala District Municipality.

Table 9: Vegetation Types in Harry Gwala District Municipality

| Vegetation Types | Conservation status | Area (km ²) |
|--|---------------------|-------------------------|
| AZONAL VEGETATION BIOME | | |
| <ul style="list-style-type: none"> Drakensberg Wetlands | Unknown | 84322.99716 |
| <ul style="list-style-type: none"> Eastern Temperate Wetlands | Unknown | 711662.1258 |
| <ul style="list-style-type: none"> Temperate Alluvial Vegetation | Unknown | 86739.35982 |
| <ul style="list-style-type: none"> Drakensberg Wetlands | Unknown | 84322.99716 |
| <ul style="list-style-type: none"> Eastern Temperate Wetlands | Unknown | 711662.1258 |
| <ul style="list-style-type: none"> Temperate Alluvial Vegetation | Unknown | 86739.35982 |
| FOREST BIOME | | |
| <ul style="list-style-type: none"> Drakensburg Montane Forest | Near Threatened | 53573.48231 |

| | | |
|---|-----------------------|-------------|
| • <i>Eastern Mistbelt Forests</i> | Near Threatened | 1518106.462 |
| • <i>Eastern Scarp Forests:</i> • <i>Southern Coastal Scarp</i> • <i>Forest</i> | Near Threatened | 15643.51619 |
| GRASSLAND BIOME | | |
| • <i>Drakensberg Afroalpine</i> • <i>Heathland</i> | Near Threatened | 194420 |
| • <i>Drakensberg Foothill Moist</i> • <i>Grassland</i> | Vulnerable | 30830800.85 |
| • <i>Drakensberg-Amatole</i> • <i>Afromontane Fynbos</i> | Near Threatened | 16777.15834 |
| • <i>East Griqualand Grassland</i> | Vulnerable | 74787.61142 |
| • <i>Drakensberg Afroalpine</i> • <i>Heathland</i> | Near Threatened | 44045.83127 |
| • <i>Drakensberg Foothill Moist</i> • <i>Grassland</i> | Near Threatened | 11394244.94 |
| • <i>Drakensberg-Amatole</i> • <i>Afromontane Fynbos</i> | Near Threatened | 80150.0731 |
| • <i>East Griqualand Grassland</i> | Critically Endangered | 7789084.697 |
| • <i>Lesotho Highland Basalt</i> • <i>Grassland</i> | Near Threatened | 21050344.19 |
| • <i>Mabela Sandy Grassland</i> | Near Threatened | 5182563.524 |
| • <i>Midlands Mistbelt</i> • <i>Grassland</i> | Endangered | 74787.61142 |
| • <i>Northern Drakensberg</i> • <i>Highland Grassland</i> | Near Threatened | 44045.83127 |
| • <i>Southern Drakensberg</i> • <i>Highland Grassland</i> | Near Threatened | 11394244.94 |
| • <i>Southern KwaZulu-Natal</i> • <i>Moist Grassland</i> | Near Threatened | 80150.0731 |
| • <i>uKhahlamba Basalt</i> • <i>Grassland</i> | Critically Endangered | 7789084.697 |
| SAVANNA BIOME | | |
| <i>Dry Ngongoni Veld</i> | Endangered | 6965058.586 |
| • <i>Eastern Valley Bushveld</i> | Near Threatened | 3669850.022 |

| | | |
|---|-----------------------|-------------|
| <ul style="list-style-type: none"> • <i>KwaZulu-Natal Hinterland</i> • <i>Thornveld</i> | Vulnerable | 1894557.148 |
| <ul style="list-style-type: none"> • <i>KwaZulu-Natal Sandstone</i> • <i>Sourveld</i> | Critically Endangered | 1701949.942 |
| <ul style="list-style-type: none"> • <i>Moist Ngongoni Veld</i> | Critically Endangered | 2860434.553 |

Source: Draft Biodiversity Sector 2011



Map 7: Vegetation Types
Source: Water Resources Commission

3.1.7. Threatened Ecosystems in Harry Gwala District Municipality

As depicted on Map 8, there are various threatened ecosystems within Harry Gwala District Municipality. In each Local Municipality threatened ecosystems are discussed below.

a) Umzimkhulu Local Municipality

Midlands Misbelt Grassland is evident in the central part of the Municipality while on the eastern part to the north east of the Municipality, Ngongoni is evident. Sihleza ecosystem is evident on the south and western part of the Municipality.

b) Ubuhlebezwe Local Municipality

Ngongoni ecosystem is evident on the south west and stretches to the east part of the Municipality nearby the border of the Umdoni. KwaZulu Natal Sandstone appears on the north east and on the central part is partially evident of the Municipality. Midlands Misbelt Grassland appears on the central part with Ixopo surrounds on the western part of the Municipality.

c) Greater Kokstad Local Municipality

The Municipality comprises of three threatened ecosystem which are Swartbeg, Eastern Temperate and Mount Macdonald Ridge Wetlands. Swartberg is the most threatened within the Municipality and it is evident on the east and northern section of the Municipality. Eastern Temperate appears partially on the south and on the north western section of the Municipality.

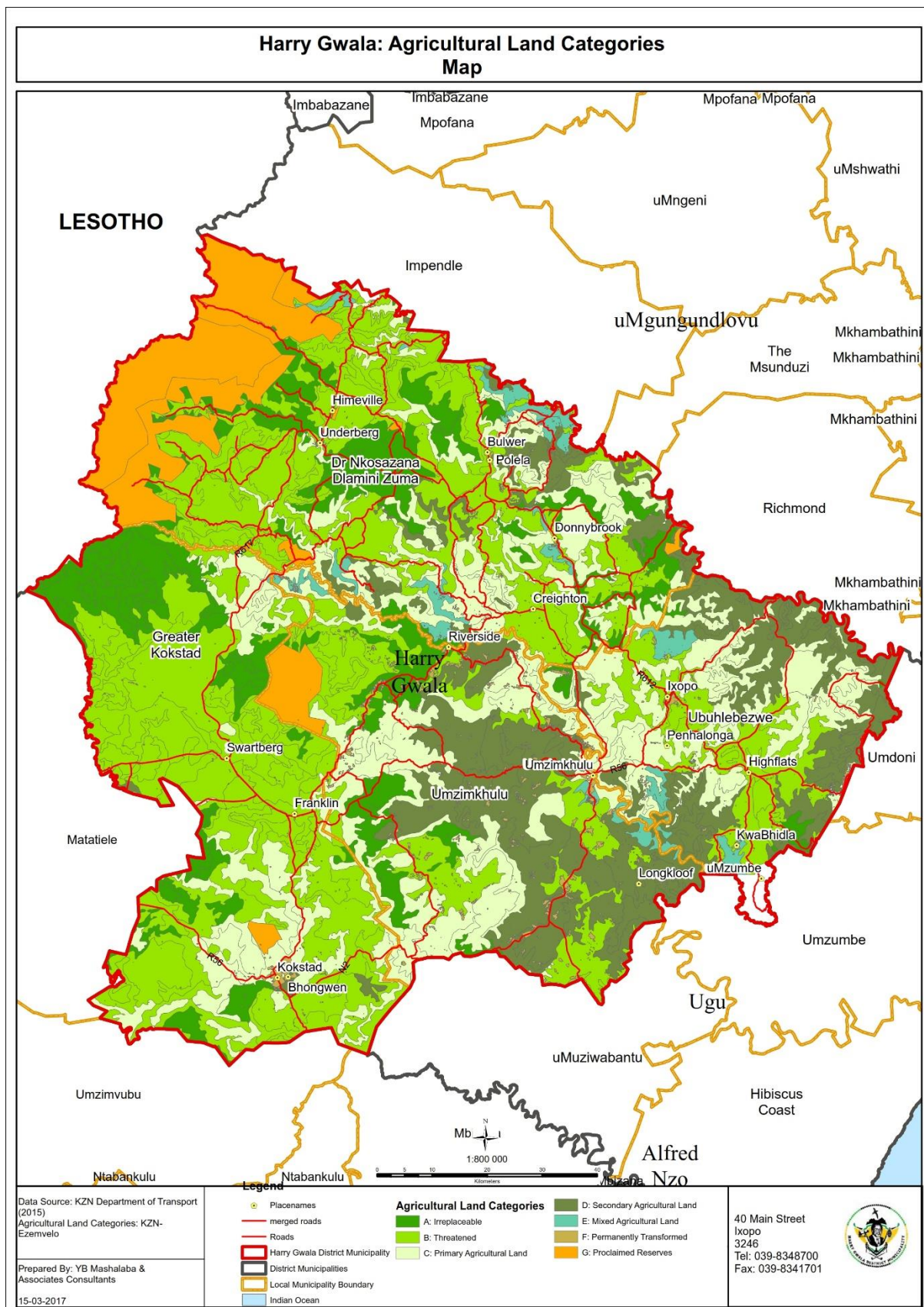
d) Dr Nkosazana Dlamini Zuma

Threatened ecosystem in Dr Nkosazana Dlamini Zuma comprises of approximately five ecosystems. The Eastern Creighton and Donny brook appears on the south eastern part with Pudsey on the southern part of the Municipality. Himville Lowlands Ridge is evident on the west and north of the Municipality. Marwaqa appears on the central to the north of the Municipality.

3.1.8. Agricultural Categories

Harry Gwala District Municipality has a high agro-ecological potential because of the abundance of high quality soils, high altitude as well as abundant water. The economy of Harry Gwala is largely characterised by commercial farming and commercial forestry plantations (see Map 9). The district enjoys suitable conditions for a wide array of agricultural products including field crops (maize, soybean) and vegetables, livestock (beef and milk) as well as sugarcane around the Ixopo/Highflats area. Some of the key issues relating to agricultural assessment are highlighted below:

- Recently, there has been a slight decline in the agricultural output within the district;
- This may have been caused by uncertainties surrounding land reform;
- There is also an issue of lack of skills from the land reform beneficiaries; and



Map 9: Agricultural Land Categories
 Source: KZN COGTA

3.1.9. Indigenous forests

Indigenous forests refer to the forests that are exclusively native to the biota of a specific place. The KwaZulu-Natal Mistbelt (Ngongoni) is rich in species and plant endemism. It includes grasslands and forests and the blue swallow. Map 10 indicates indigenous forests within Harry Gwala District Municipality. Indigenous forests are prevalent in the centre of the municipality and can also be found near Bulwer, Polela, Donny brook and Creighton. Areas around the north-western border of the municipality, in areas prone to disasters which indicated a high level of snow, do not have any indigenous forests. Indigenous forests hold potential that can be harnessed from the growing trend towards nature tourism.

3.1.10. Climate Change

South Africa has regarded climate change as the most significant environmental challenge which poses threat to the human population. According to the IPCC 2015 climate change is defined as change in the state of the climate that can be identified by changes in the mean and the variability of its properties and that persists for a period of 10 years or more. It is mainly due to an excessive amount of greenhouse gases emitted to the atmosphere due to human activities.

It is evident that South Africa is experiencing climate change impacts such as the recent droughts and the floods which may be attributed by climate change. Climate change is mainly caused by the excessive greenhouse gases in the atmosphere which are emitted due to human activities (IPCC, 2014). Climate Change impacts results in increase temperature, floods, heavy rainfall and storms, droughts and altered weather patterns, as a consequence this may impact the livelihood. This draw attention for development plans to incorporate climate change strategies.

a) Climate change risks

Climate Change impacts results in the following aspects as predicted by the IPCC, 2014;

- Higher temperatures
- Altered rainfall patterns
- More frequent or intense extreme weather events including heat-waves, droughts, storms and floods

The implications of the above predicted climate change will impact on the physical environment which will ultimately impact on the sustainability of human livelihoods. It is imperative Harry Gwala District Municipality's future planning initiatives and programmes take into consideration risks and impacts and limitations imposed by climate change, such as increased temperatures; changes in precipitation levels; increased storm events; and consider adaptation measures.

b) Water

Harry Gwala District Municipality has different Sources of water namely Regional/local water schemes, Boreholes, rain water tanks, Dam/pool/stagnant water, River/stream, water Vendor, Water tanker and others. The majority of the population is dependent on natural water system; furthermore, climate change impact may result in water scarcity due to drought and higher temperatures with low rainfall.

c) Sanitation

Surface Springs occur when groundwater emerges at the surface where water tables are high. Harry Gwala has 16067 number of households receiving water from springs. Protecting spring water has various advantages. It is good quality water which does not need treatment and the water comes out naturally which does not require high cost facilities to pump water. Sanitation is very essential when it comes to water pollution especially springs since its source of water is ground water. Harry Gwala District municipality has 50623 numbers of households using flush toilets unmaintained sewage system usually spill off and pollutes ground water which is source of water for springs.

d) Agriculture

Agriculture contributes proportionately more employment in Harry Gwala District Municipality. The district plays an important role in agriculture due to the fact that it has the best soil in the province, abundant water, good rainfall and it is rich in natural resources. There are various agricultural practices within the District Municipality of which includes Maize, Potatoes, Cattle and fruit farming. Climate change poses a threat to the above mentioned agricultural activities. Due to altered weather patterns, the District Municipality may experience droughts, soil erosion which destroys soil fertility, shortage of water and floods, all these impacts may affect the agricultural sector and impact on food security and the economy.

e) Biodiversity

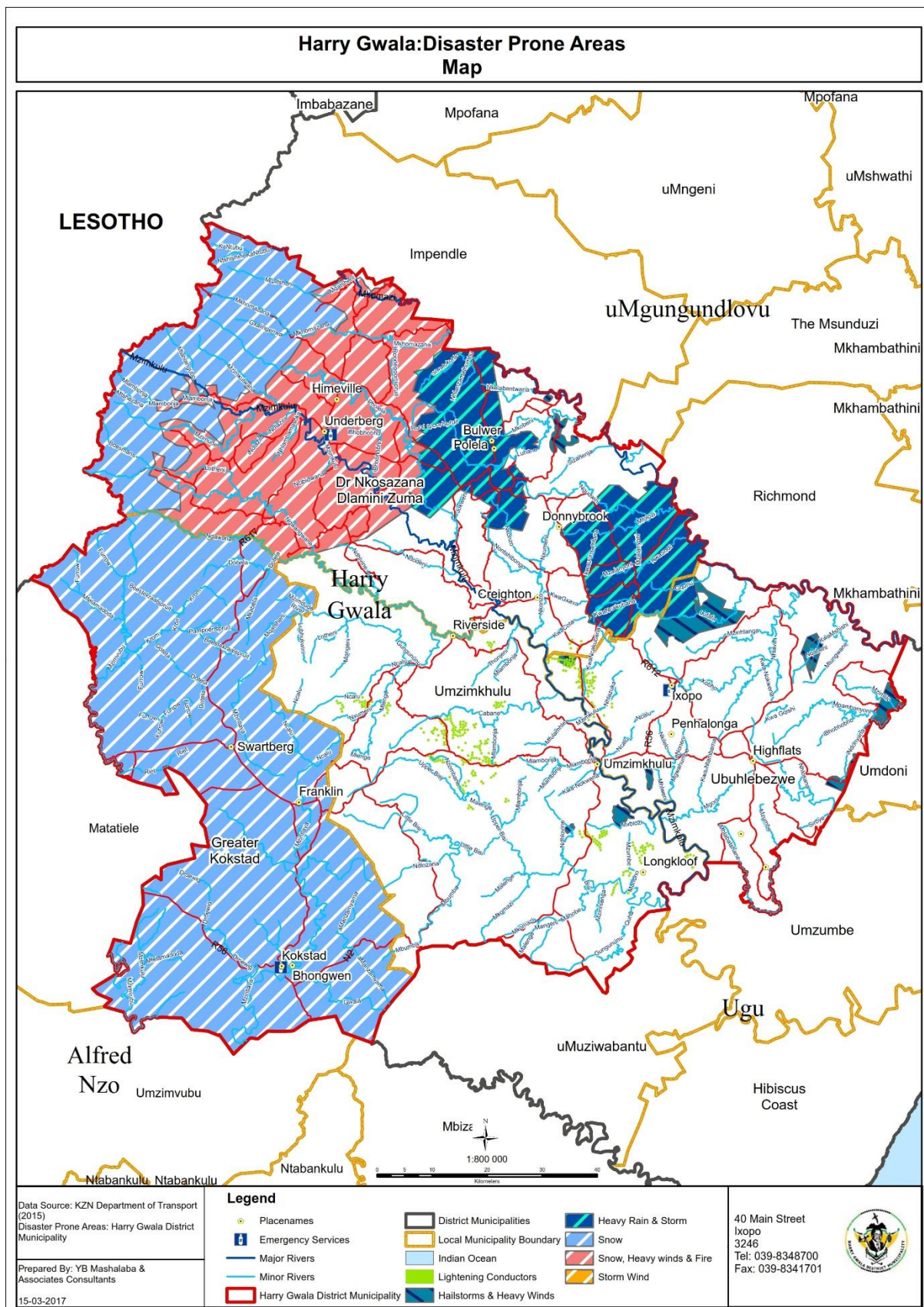
Predicted climatic weather may have impact on the biodiversity of the Municipality. Changes in weather patterns and severe weather may results in shift of biomes, extinction of certain species.

f) Areas prone to climate change impacts within Harry Gwala District Municipality.

The Harry Gwala District Municipality Disaster Management Plan, 2012 indicates that the all the Local Municipalities are prone to climatic disasters such as Storms, Heavy Wind, Lightning Strikes, Floods, Veld Fires and Snow. Climate change impacts results in altered weather patterns and climatic disasters (IPCC, 2014). These disasters identified in Harry Gwala District

Municipality may be attributed by climate change. Map 11 shows areas which are prone to Disasters within Harry Gwala District Municipality.





Map 11: Disaster prone areas in Harry Gwala District Municipality
 Source: Harry Gwala District Municipality

3.1.11. Biophysical Challenges

The *Sisonke District Municipality Strategic Environmental Assessment 2013* identifies the following biophysical challenges:

- Uncoordinated developments pose challenges to the natural environment.
- Various land uses (agriculture, including commercial timber and line developments) poses a challenge to the natural environment
- Economic growth, urbanisation and population growth results in high demand for space which poses challenges on the natural environment

3.1.12. Biophysical Opportunities

The *Sisonke District Municipality Strategic Environmental Assessment 2013*, state the following biophysical opportunities exist:

- All these protected areas provide opportunities for tourism
- Ngwangwane Catchment area provide opportunity for protection of the natural environment and wetlands that provide water resources
- uKhahlamba-Drakensberg Park World Heritage Site provide opportunity for the protection of the natural environment and Heritage while providing economic opportunities through the creation of local jobs.
- Maloti-Drakensberg Transfrontier Project provides an opportunity for economic growth through the creation of jobs and indirect small business development.
- An opportunity for gearing sustainable development exists due to the protection of the natural environment while promoting economic activities.
- Opportunity for the conservation of water resources exist through the protection of wetlands and protection of endangered and threatened species.

3.2. SOCIO-ECONOMIC ANALYSIS

This section provides a comprehensive overview of the demographic profile, together with the economic analysis of the Harry Gwala District Municipality. The demographic profile entails population distribution, educational levels, employment status, income level, HIV prevalence, social amenities, while the economic analysis is characterised by the various economic sectors as well as identified business opportunities within the district. This section concludes with the opportunities and challenges that the municipality faces in relation to the above-mentioned aspects. This can thus assist in determining required strategic interventions that which can be put forth to uplift the livelihoods of the overall community and enhance the economic development of settlements within the Harry Gwala DM.

3.1.13. Overall Population Distribution

The overall population of Harry Gwala DM was 461 419 during the conduction of the 2011 census. Due to the amalgamation of Kwasani and Ingwe Local municipalities, figure 1 below outlines population distribution for 4 local municipalities within the district.

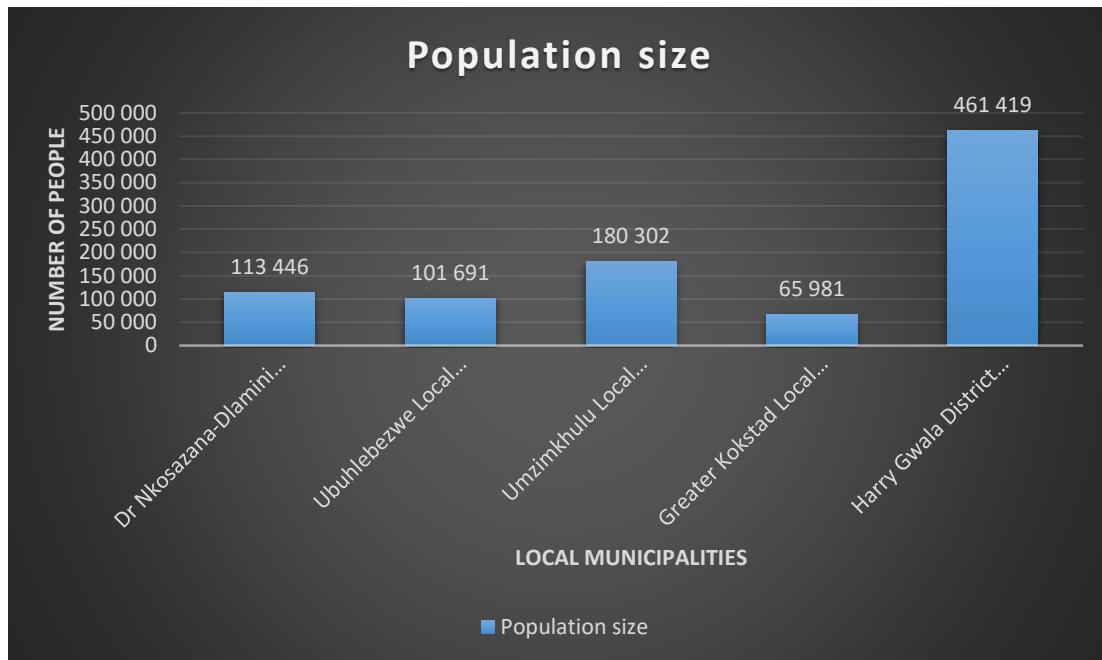


Figure 1: Overall population distribution for Harry Gwala DM.

Source: Stats SA (2011)

As indicated above, the Harry Gwala DM is mainly populated by people residing within the Umzimkhulu Local Municipality(39.08%), followed by Dr Nkosazana-Dlamini Zuma Local Municipality(24.59%) which experienced an increase population profile due to the amalgamation of Ingwe Local Municipality and Kwasani Local municipality, and is followed by Ubuhlebezwe local Municipality (22.04%). A smaller population profile was therefore recorded in the Greater Kokstad Local Municipality (14.30%).

3.2.1.1. POPULATION PROJECTIONS FOR THE NEXT 5YEARS

Over the course of 5 years the population of Harry Gwala grew from 461 419 in 2011 to 502 265 in 2016, indicating an annual population growth rate of 1.71%. Using the formula below, the population growth projections were made:

$$P = P_0(1 + r)^t$$

Whereby:

P = Future Population

P_0 = Initial Population

r = rate of growth

t = time (number of years)

The projections of the population growth of Harry Gwala District are depicted in the Table 10:

Table 10: Population projections for Harry Gwala DM

| Year | Population |
|------|------------|
| 2011 | 461 419 |
| 2016 | 502 265 |
| 2021 | 546 703 |
| 2026 | 595 072 |
| 2031 | 647 721 |
| 2036 | 705 027 |
| 2041 | 767 404 |
| 2046 | 835 300 |

3.2.1.2. POPULATION DISTRIBUTION BY RACE

Table 11 below demonstrates the population distribution by race within the local municipalities which falls under the jurisdiction of Harry Gwala DM. As outlined in the table below, the Harry Gwala DM is predominated by the Black population (446 409), which is followed by coloureds (7546), whites (5356), while a smaller racial proportion is indicated on the Indian/Asian population group (1506).

Table 11: Population Distribution by race

| Municipality | Black | Coloured | Indian or Asian | White | Total |
|--|--------|----------|-----------------|-------|--------|
| Dr Nkosazana Dlamini-Zuma Local Municipality | 110619 | 352 | 164 | 2147 | 113446 |

| | | | | | | |
|--------------------------------------|--------------|---------------|-------------|-------------|-------------|---------------|
| Ubuhlebezwe Municipality | Local | 99188 | 1172 | 385 | 831 | 101691 |
| Umzimkhulu Local Municipality | | 179104 | 620 | 224 | 184 | 180302 |
| Greater Kokstad Municipality | Local | 57498 | 5402 | 733 | 2194 | 65981 |
| Harry Gwala District | | 446409 | 7546 | 1506 | 5356 | 461420 |

Source: Stats SA

As indicated in Table 11 above, it is clear that all these local municipalities are populated by the Black racial group, it must however be noted that a large proportion of coloureds and white population are located in Greater Kokstad Local Municipality as compared to other local municipalities. The rural landscape of the district municipality contributes extensively to the massive Black population dominance within the entire district, which also results to service backlogs, poverty, and unemployment as well as other critical issues which contributes to the social and spatial challenges of each local municipality. It is vitally important to ensure that the draft SDF as well as the implementation plan address the above mentioned issues.

3.2.1.3. POPULATION DISTRIBUTION BY GENDER

As outlined in figure 2 below, Stats SA (2011) indicated that the Harry Gwala DM was predominated by females (53.5%) as compared to their male (46.5%) counterparts. However, the community survey 2016 indicated a slight increase in the male population (48.8%), although the female population still dominated the entire municipality (51.22%).

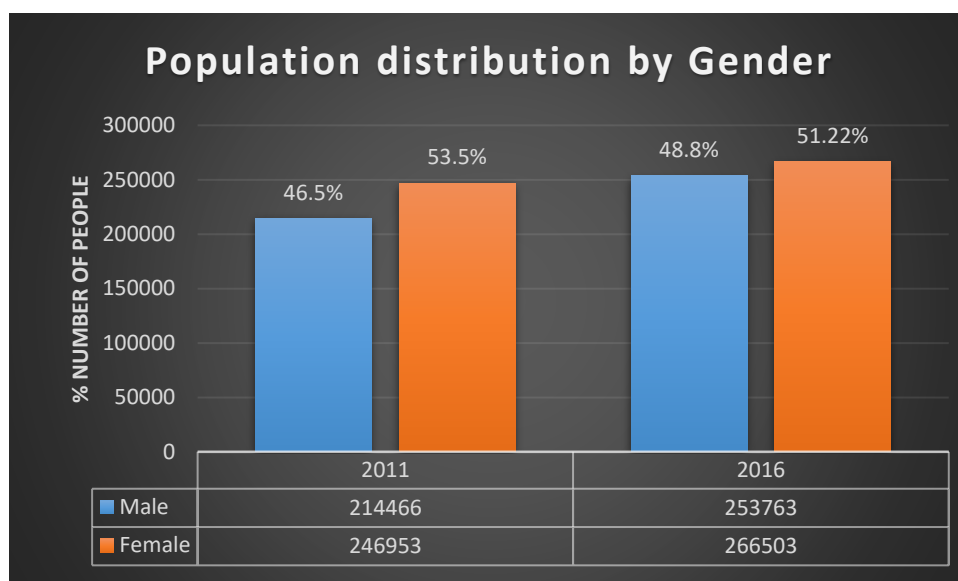


Figure 2: Overall Gender

Source: Stats SA (2011)

Figure 3 below denotes population distribution by gender per local municipality within the District.

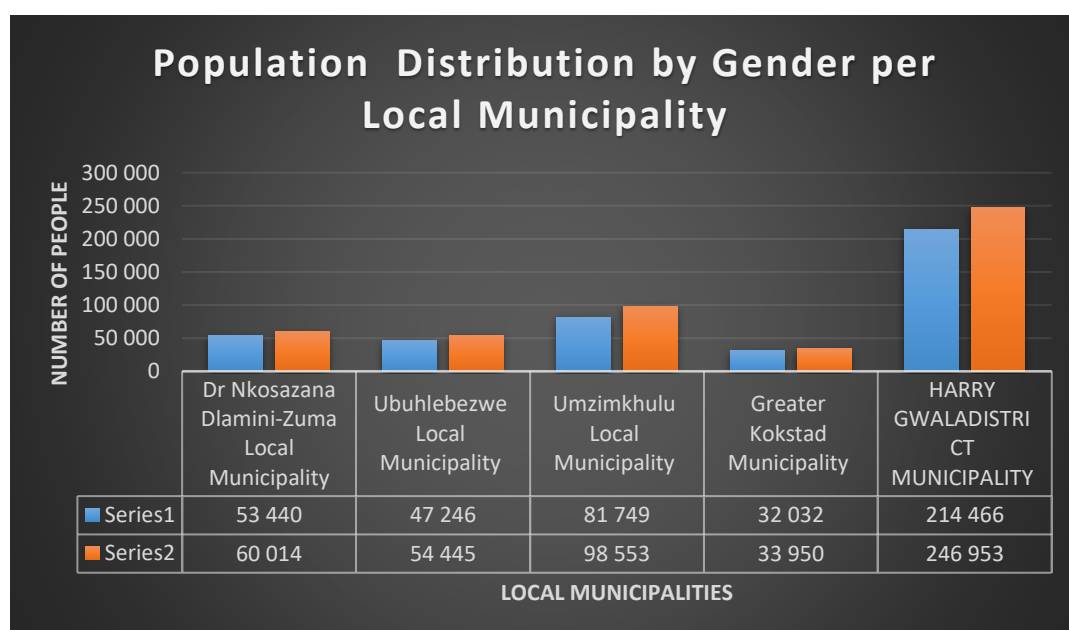


Figure 3: Population distribution by gender per local municipality

Source: Stats SA (2011)

Figure 4 below indicates the overall population as outlined in the 2016 community survey per local municipality.

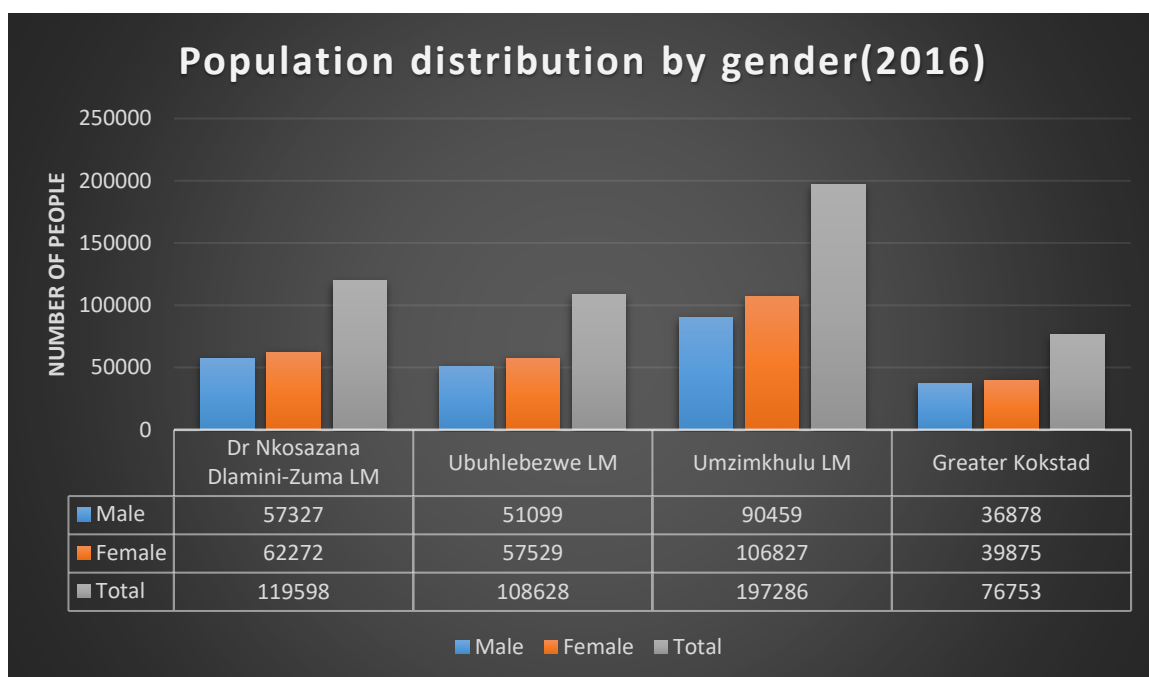


Figure 4: Population Distribution by gender.

Source: Community Survey (2016)

The gender distribution of the municipality as indicated above should be considered to ensure that the proposed developments provides accessibility to social facilities and economic opportunities for women as vulnerable groups.

3.2.1.4. POPULATION DISTRIBUTION BY AGE

Table 12 below is an illustration of population distribution by age per local municipalities within the Harry Gwala District.

Table 12: Population Distribution by age

| Municipality | 0-14 Years | 15-65 Years | 65+ |
|---|------------|-------------|-------|
| Dr Nkosazana Dlamini-Zuma Local Municipality | 32% | 62.75% | 5.25% |
| Ubuhlebezwe Local Municipality | 37.4% | 15.4% | 5.3% |
| Umzimkhulu Local Municipality | 40.8% | 53.7% | 5.5% |
| Greater Kokstad Local Municipality | 30.6% | 66.7% | 2.7% |

Source: Stats SA (2011)

As indicated above, Harry Gwala DM is mainly populated by the working group (15-65), except for Ubuhlebezwe Local Municipality which is mainly populated by the younger population (0-14). This is an indication that more needs to be done with regards to ensure accessibility to employment opportunities, to curb unemployment and poverty within the district in order to ensure that the needs of the majority of the population are accommodated.

Figure 5 below is an illustration of the youth population (15-34) within the Harry Gwala DM.

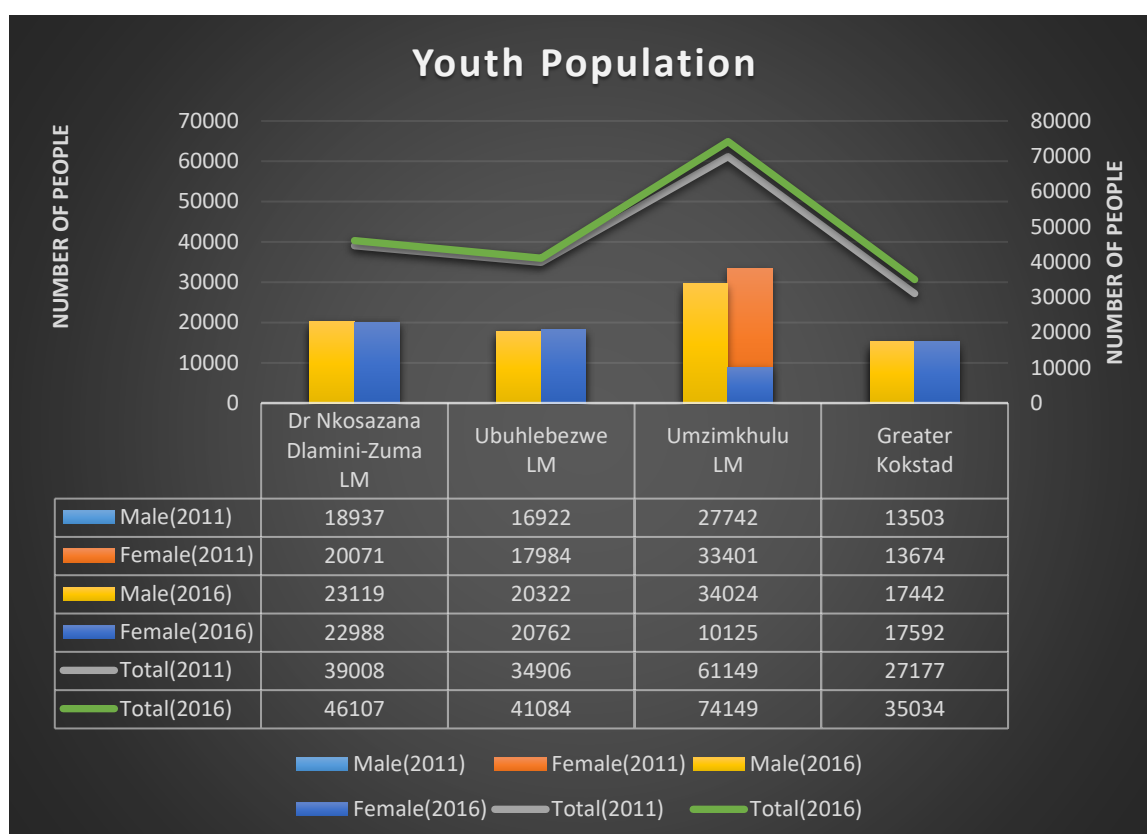


Figure 5: Youth population.

Source: Community Survey (2016)

The Community Survey 2016 indicated that the youth population proportion for the entire Harry Gwala DM was 35.2% and escalated by 3.9% between 2011-2016 (3.9%). This shows that the population of Harry Gwala is relatively young and thus provisions should be made to meet the needs and demands of the youth.

3.2.1.5. ISSUES OF MIGRATION

Migration forms part of recorded data which increases the population profile of a municipal area. This includes people who migrated from other countries and provinces for the purpose of seeking employment opportunities and accessing other related services. In this regard, it must be noted that people who do not originate from the Harry Gwala district may have an

impact in the rapid demand of housing and infrastructural backlogs. It is with this in mind that provisions needs to be made to ensure that service backlogs are address to accommodate all community members residing within the jurisdiction of the Harry Gwala District. Table 13 below outlines the migration trends.

Table 13: Migration Trends

| Province of Birth | Harry Gwala DM | Dr Nkosazana Dlamini-Zuma LM | Greater Kokstad | Ubuhlebezwe LM | Umkhulu LM |
|----------------------|----------------|------------------------------|-----------------|----------------|------------|
| Western Cape | 960 | 126 | 48 | 453 | 123 |
| Eastern Cape | 41820 | 708 | 408 | 16920 | 1452 |
| Northern Cape | 2082 | 546 | 93 | 252 | 504 |
| Free State | 612 | 72 | 45 | 168 | 90 |
| KwaZulu-Natal | 396 225 | 96072 | 11073 | 43602 | 94842 |
| North West | 714 | 162 | 27 | 108 | 159 |
| Gauteng | 2415 | 252 | 189 | 681 | 213 |
| Mpumalanga | 915 | 207 | 36 | 150 | 225 |
| Limpopo | 681 | 138 | 15 | 111 | 153 |
| Outside South Africa | 2757 | 396 | 402 | 963 | 423 |
| Unspecified | 9345 | 1692 | 159 | 1623 | 2904 |
| Not applicable | 2901 | 177 | 402 | 945 | 603 |

Source: Stats SA (2011)

As indicated on the above table, the majority of the people who migrated to the Harry Gwala District resided within the KwaZulu-Natal Province, while others resided mainly in the Eastern Cape Province. This is due to the fact that Harry Gwala is strategically located in close proximity to the Eastern Cape Province and other municipalities' within the district share a common border (this is further illustrated in the Cross Border Alignment section). The Harry Gwala Growth and Development Plan (2014) indicated that Harry Gwala DM is likely to experience outward-migration as skilled workers may move t bigger urban centres. It is thus important to ensure that provisions are made to enhance the provision of economic activities within the district.



Map 12: Population density per Municipality
Source: Statistics SA (2011)

3.1.14. Language

As indicated in Figure 6 below, the language used by the majority of the population is Isizulu. Isixhosa has been identified as the second predominant language within the district. This is due to the fact that the Harry Gwala DM share common boundaries with adjacent municipalities of the Eastern Cape Province.

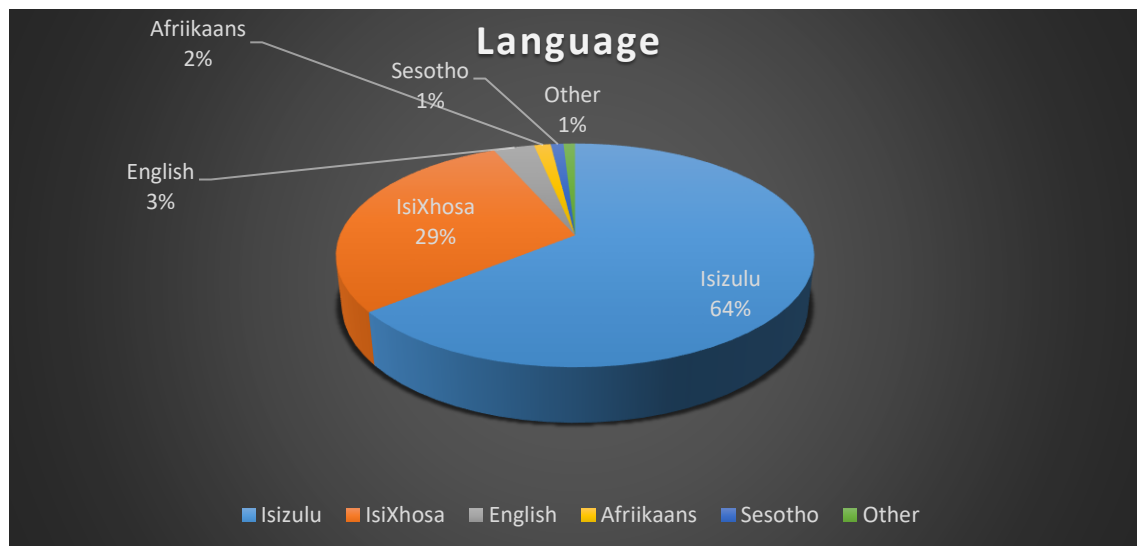


Figure 6: Language
Source: Stats SA (2011)

3.1.15. Education Level

Table 14 below demonstrates the education levels of the population residing within the jurisdiction of the Harry Gwala District Municipality. Stats SA(2011) indicated that although it is still quite a small proportion of the population, the highest percentages of the population per local municipality have completed matric, while even a smaller portion of the population have obtained higher education qualifications. It is clear that measures needs to be undertaken to ensure improved literacy within the district in order to gain more skilled labour force which can get employed in the proposed economic opportunities within the district.

Table 14: Education Levels for Harry Gwala DM

| Municipality | No Schooling | Completed Matric | Higher Education |
|---|--------------|------------------|------------------|
| Dr Nkosazana Dlamini-Zuma Local Municipality | 21.4% | 38.8% | 12.8% |
| Ubuhlebezwe Local Municipality | 15.9% | 20% | 4.3% |
| Umzimkhulu Local Municipality | 6.4% | 15.3% | 4.9% |
| Greater Kokstad Local Municipality | 4.1% | 28.3% | 10.8% |

Source: Stats SA (2011)

3.1.16. Employment Status

Census 2011 indicated that 54.50% of the population within the Harry Gwala District were not economically active, while 31.40% were unemployed during the recording of Census 2011. Lack of formal schooling indicated in Table 14 above could be the main contributing factor towards high unemployment rate within the District. The Harry Gwala Growth and Development Strategy (2014) indicated that the population group between 15-64 (the population age group that can be employed) predominated other age groups within the local municipality of the Harry Gwala DM. However, a decrease has been identified in the population group of 65 and above. As a result, provisions needs to be made to enhance the economic opportunities within the municipality.

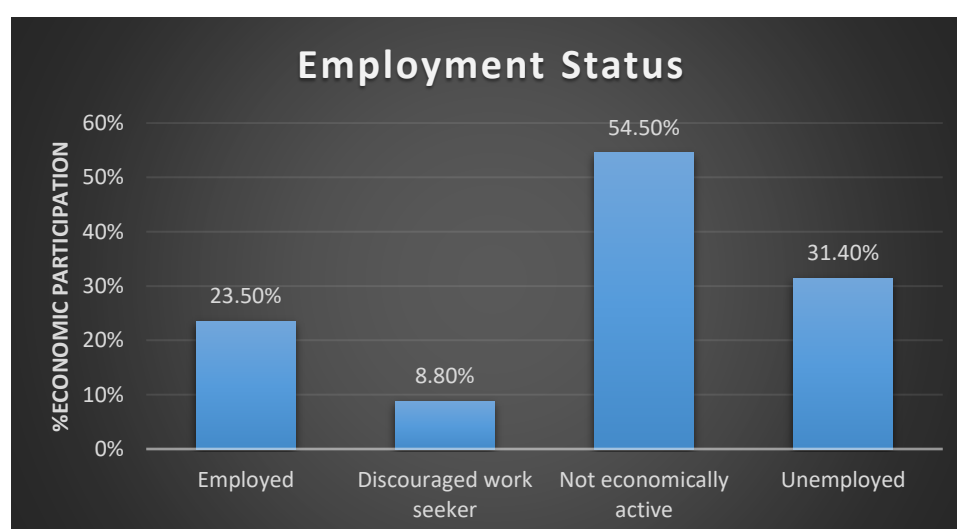


Figure 7: Employment Status
Source: Stats SA (2011)

3.2.1.6. UNEMPLOYMENT RATE PER LOCAL MUNICIPALITY

Figure 8 below outlines the unemployment rate per local municipality within the Harry Gwala DM. Umzimkhulu LM has the highest unemployment rate as compared to other local municipalities, followed by Ubuhlebezwe LM and also have the highest youth employment rate in contrast to other municipalities. Although the Harry Gwala DM is mainly populated by the working group, it is clear that youth unemployment is a challenge within the municipality. As such, more needs to be done to ensure acceleration of employment opportunities for all local municipalities within the district.

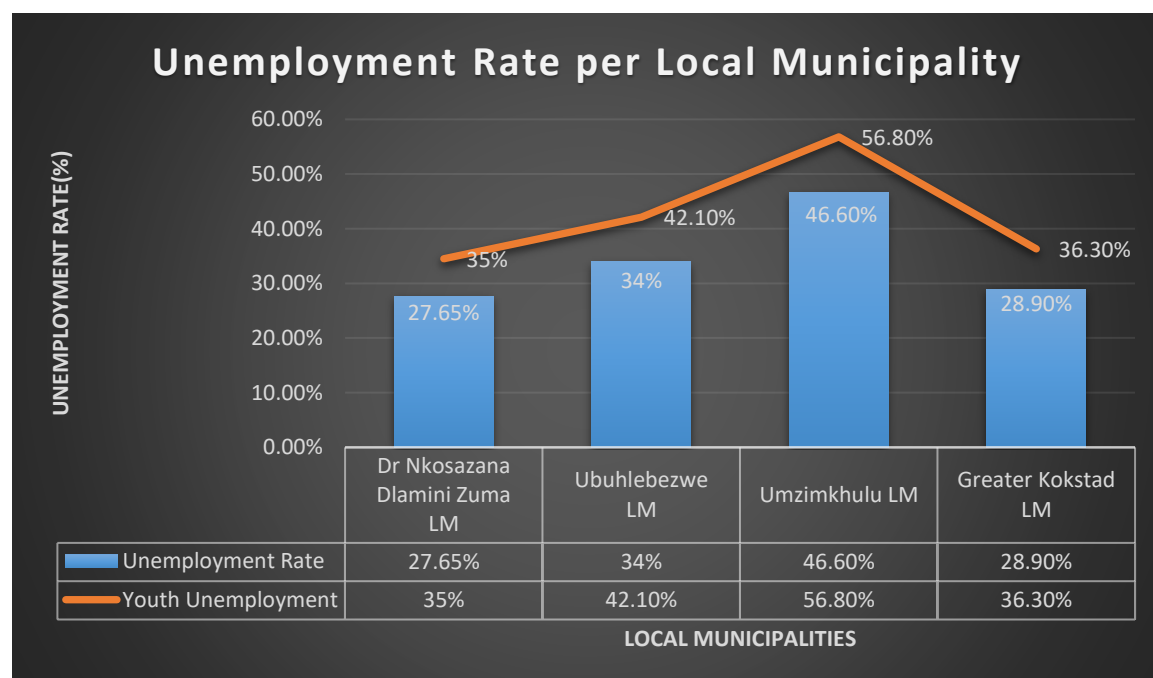


Figure 8: Unemployment rate

Source: Stats SA (2011)

3.1.17. Average Household Income

Table 15 below indicates the average household's income levels for municipalities within the Harry Gwala District. Evidently, the majority of the working population earn between R801- R1600 per month, which is followed by workers earning R800 or less. Arguably, there are very few workers earning above R12 801 and above. It should also be noted that Greater Kokstad Local Municipality has the highest income earners (although a few in relation to the majority of income earners) as compared to other Local Municipalities within the district.

Table 15: Average income levels

| Monthly Household Income | Dr Nkosazana Dlamini-Zuma | Greater Kokstad | Ubuhlebezwe | Umzimkhulu |
|--------------------------|---------------------------|-----------------|-------------|------------|
| No Income | 3632 | 3031 | 3902 | 6688 |
| R1 – R400 | 1535 | 745 | 1628 | 3018 |
| R401 – R800 | 3119 | 1410 | 2650 | 6098 |
| R801 – R1600 | 7270 | 3879 | 6007 | 11547 |
| R16301 – R3200 | 6249 | 3738 | 5139 | 9408 |
| R3201 – R6400 | 2380 | 2231 | 2052 | 3067 |
| R6401 – R12800 | 1304 | 1918 | 1048 | 1647 |
| R12801 – R25600 | 703 | 1274 | 616 | 902 |
| R25601 – R51200 | 378 | 650 | 331 | 410 |
| R51201 – R104200 | 88 | 171 | 56 | 53 |
| R104201 – R204800 | 44 | 59 | 34 | 34 |
| >R204800 | 43 | 34 | 22 | 36 |
| Unspecified | - | - | 1 | - |

3.1.18. Poverty levels and dependency ratio

Table 16 below denotes the levels of poverty as well as the dependency ratio of the population of Harry Gwala DM, illustrated per local municipality. The Harry Gwala DM Growth and Development Strategy (2014) indicated that approximately 33% of the population within this district live in poverty. The main poverty concentration and dependency ratio has been indicated in Umzimkhulu Local Municipality, followed by Ubuhlebezwe Local Municipality. This shows that both these municipalities consists of destitute communities.

Table 16: Poverty and inequality

| Municipality | Total Population | Number of people in poverty (approximate) | Percentage of people in Poverty | Dependency Ratio |
|-----------------------------|------------------|---|---------------------------------|------------------|
| Dr Nkosazanna Dlamini- Zuma | 113 446 | 35 416 | 31.21 | 61,7 |
| Greater Kokstad | 65 981 | 17 881 | 27.1 | 49.8 |
| Ubuhlebezwe | 101 691 | 35 388 | 34.8 | 74.3 |

| | | | | |
|-------------------|----------------|----------------|-------------|-------------|
| Umzimkhulu | 180 302 | 66 351 | 36.8 | 86.2 |
| Harry Gwala Total | 461 420 | 154 114 | 33.4 | 74.9 |

Source: Stats SA 2011

Figure 9 below outlines the poverty levels of Harry Gwala DM in 2011-2016. The 2016 community survey indicated the following poverty levels for the population within the Harry Gwala DM jurisdiction.

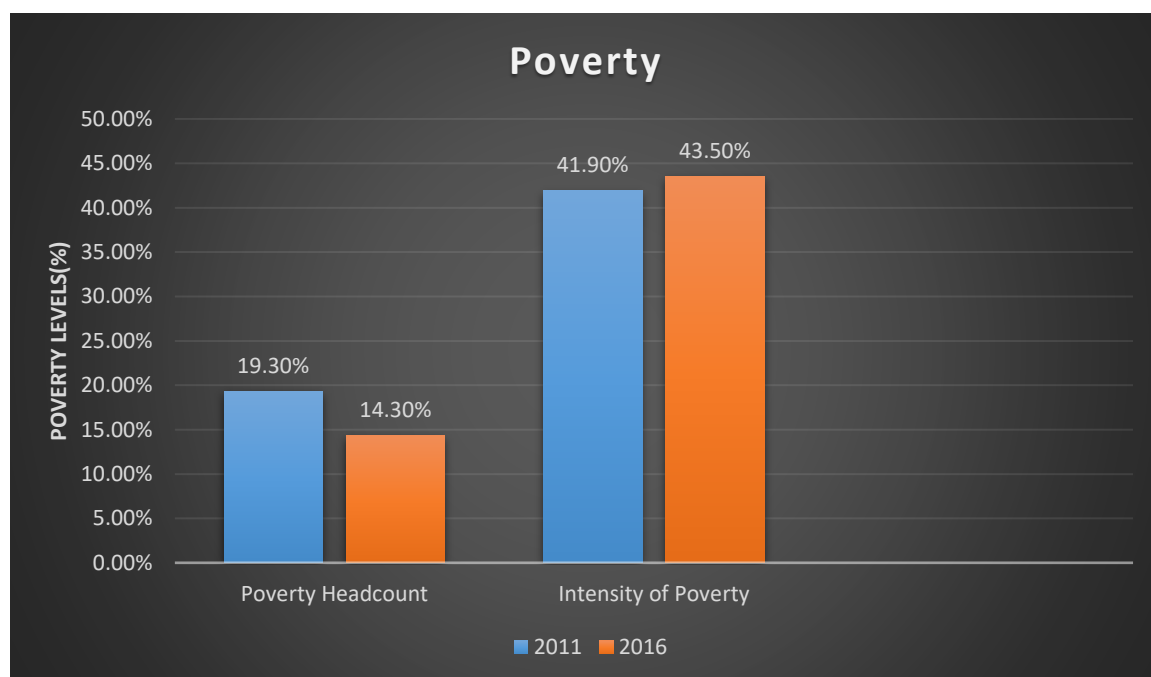


Figure 9: Poverty levels.

Source: Community Survey (2016)

Although the poverty head count indicates a 5% decrease between 2011 and 2016, the extent to which the living condition of the poor increased by 1.6%. This is an indication that Harry Gwala is mainly a resident of people living below the poverty line.

3.1.19. Crime levels

Figure 10 below outlines the crime levels recorded by the South African Police Service within the Harry Gwala DM. A total of 895 cases of Common robbery were recorded while 1546 cases of burglary at residential premises had the largest number of cases recorded. 982 cases of stock theft were also recorded in 2016 in Harry Gwala The district municipality should work closely with SAPS and its sister municipalities to combat the scourge of crime in the district.

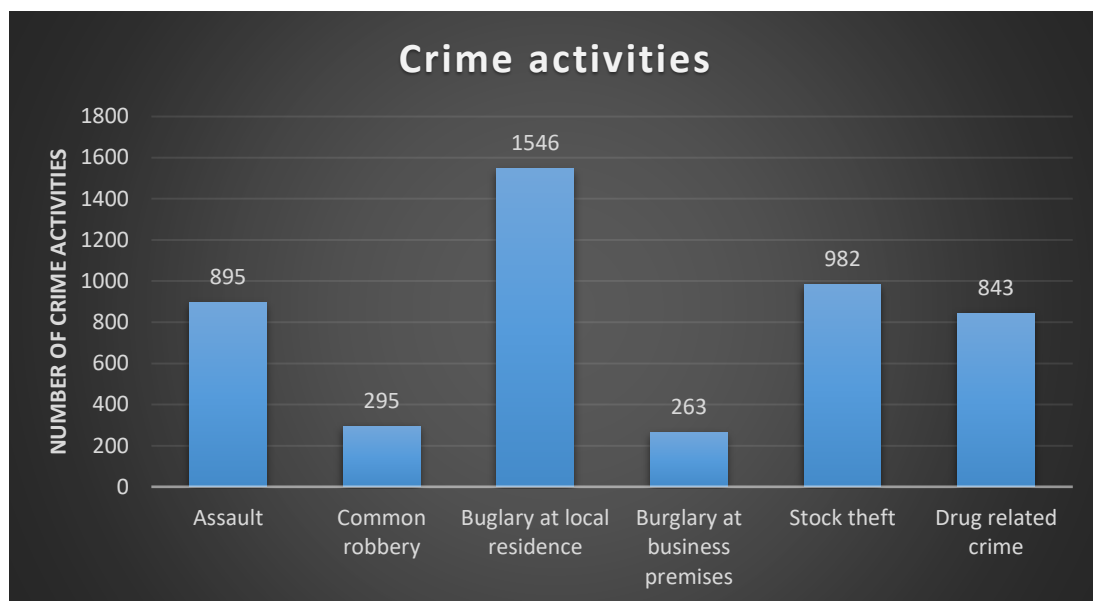


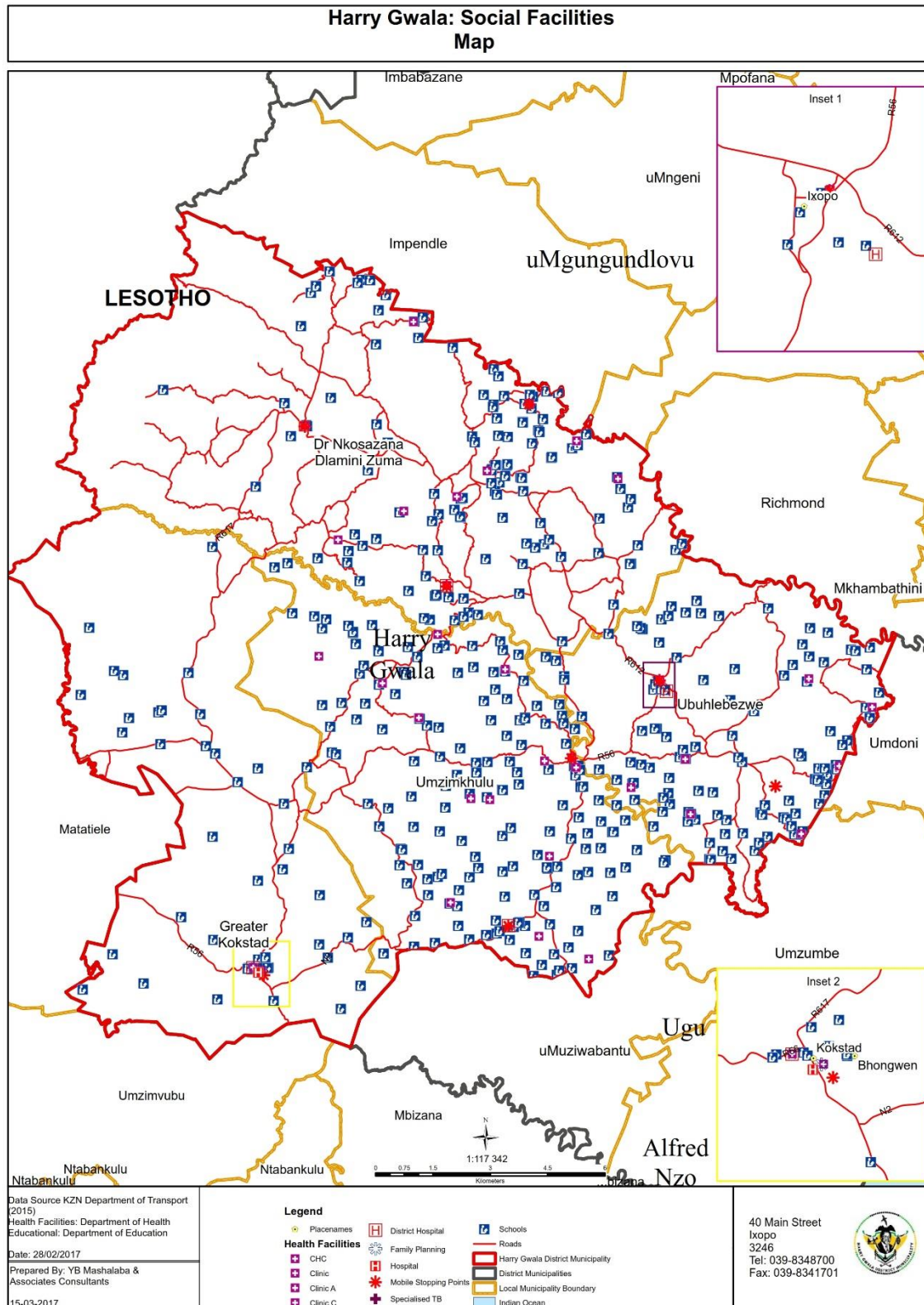
Figure 10: Crime statistics
Source: Harry Gwala Annual Report (2014)

3.1.20. Social Amenities (education and health facilities)

The provision of accessibility to social amenities is an important element which enforces the promotion of sustainable human settlements. Although the nature of settlement patterns within the Harry Gwala District Municipality makes the provision of service delivery difficult, it must be noted that the district comprise of 134 combined schools, 234 Primary Schools and 76 Secondary Schools. These schools are however scattered across the entire district. With regards to health facilities, there are currently 67 medical facilities, with 1 medical facility to be built (Harry Gwala Growth and Development Strategy: 2014). For a detailed illustration (refer to map 13).

It was further outlined that the Guidelines for Panning of Facilities in Kwazulu-Natal (2008) was used as a measure to influence planning of the provision of social amenities within the district as a result, the following guidelines were indicated for further planning requirements on the provision of schools and health facilities, based on the population of 461 420 of the entire district. The guidelines are therefore outlined hereunder:

- Primary Schools: 3000 to 4000 people per school
- Secondary Schools: 6000 to 10 000 people per school
- Mobile Clinics: less than 5000
- Small Clinics to Medium Clinics: 5000 to 20 000 people
- Community Health Centre: 70 000- 100 000 people
- Hospitals: 10 000 to 80 000 people



Map 13: Social Facilities
 Source: Department of Health and Department of Education (2017)

3.1.21. Economic Sector Analysis

This sub-section outlines the various economic sectors within the Harry Gwala District Municipality. As indicated in Figure 11 below, the economic sector within this municipality consist of Community Services, Agriculture, Trade, Manufacturing, Construction, Mining, Transport, Finance, Electricity and Construction. Community services, Agriculture, and trade were identified as main economic drivers of the district municipality. To outline the contribution that each sector makes to enhance the economic growth of the Harry Gwala DM, Gross value Added (GVA) has been used as a measure that indicates the value of goods and services produced within the DM. In this regard, the community services contributes 35% of the district's GVA. Agriculture contributes 25% of the district's GVA. Trade contributes 16% to the GVA of the district while manufacturing contributes 6%, transport 4%, electricity and construction each contributing 2% of the total economy. For a detailed illustration on major economic sectors within the Harry Gwala DM (refer to map 14)

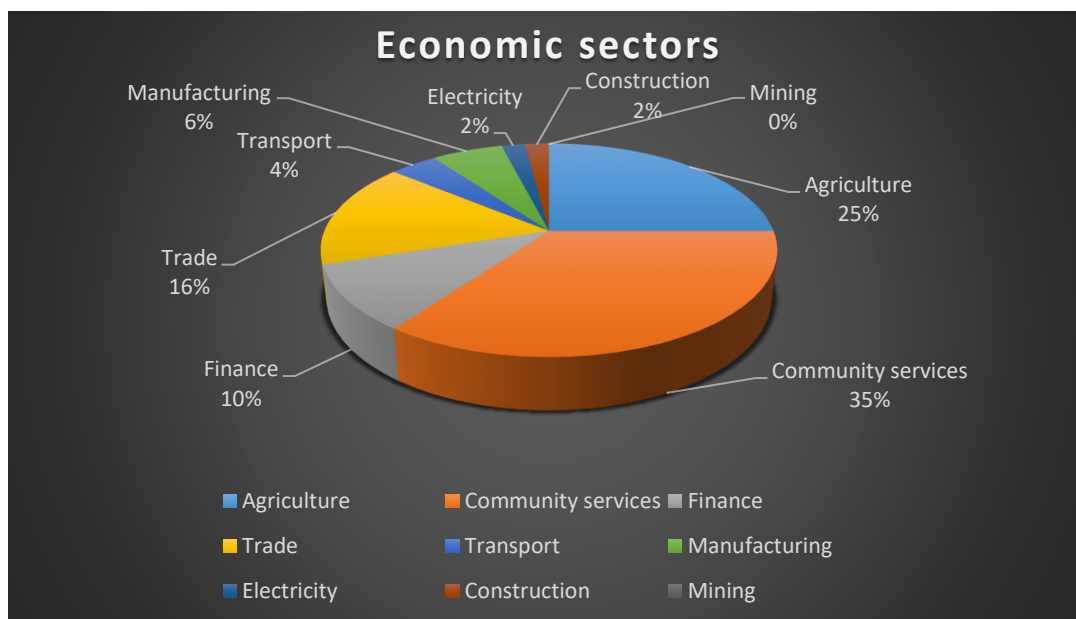


Figure 11: Share of Gross Value Added by Region (GVA-R) by Industry
Source: Harry Gwala Annual Report (2014)

3.1.22. Socio- Economic Challenges

Below is a list of identified socio economic challenges while doing situational analysis for the district:

- Evidence suggests a significant number of single women households, (often this can be linked to HIV/AIDS-related causes or migration)

- Migration to bigger cities
- High levels of Crime
- Low skilled workforce in terms of job creation
- Under developed industries
- Weak domestic consumer market
- Inadequate health facilities
- Ageing infrastructure and backlogs on basic services.
- High levels of youth unemployment and poverty
- High levels of unemployment
- Challenges facing the education in the district can be summarized as follows:
 - (a) Lack of adequate schooling facilities;
 - (b) Lack of electrical reticulation within rural areas;
 - (c) Poor road networking within the rural areas;
 - (d) Inadequate water and sanitation facilities;
 - (e) Affordability levels for transports costs; and
 - (f) Inadequate human capital within the district educational institutions.
- Low Economically Active Populations (EAP) seating on 3rd position in the province

3.1.23. Socio-economic opportunities

The following are socio economic opportunities for the district:

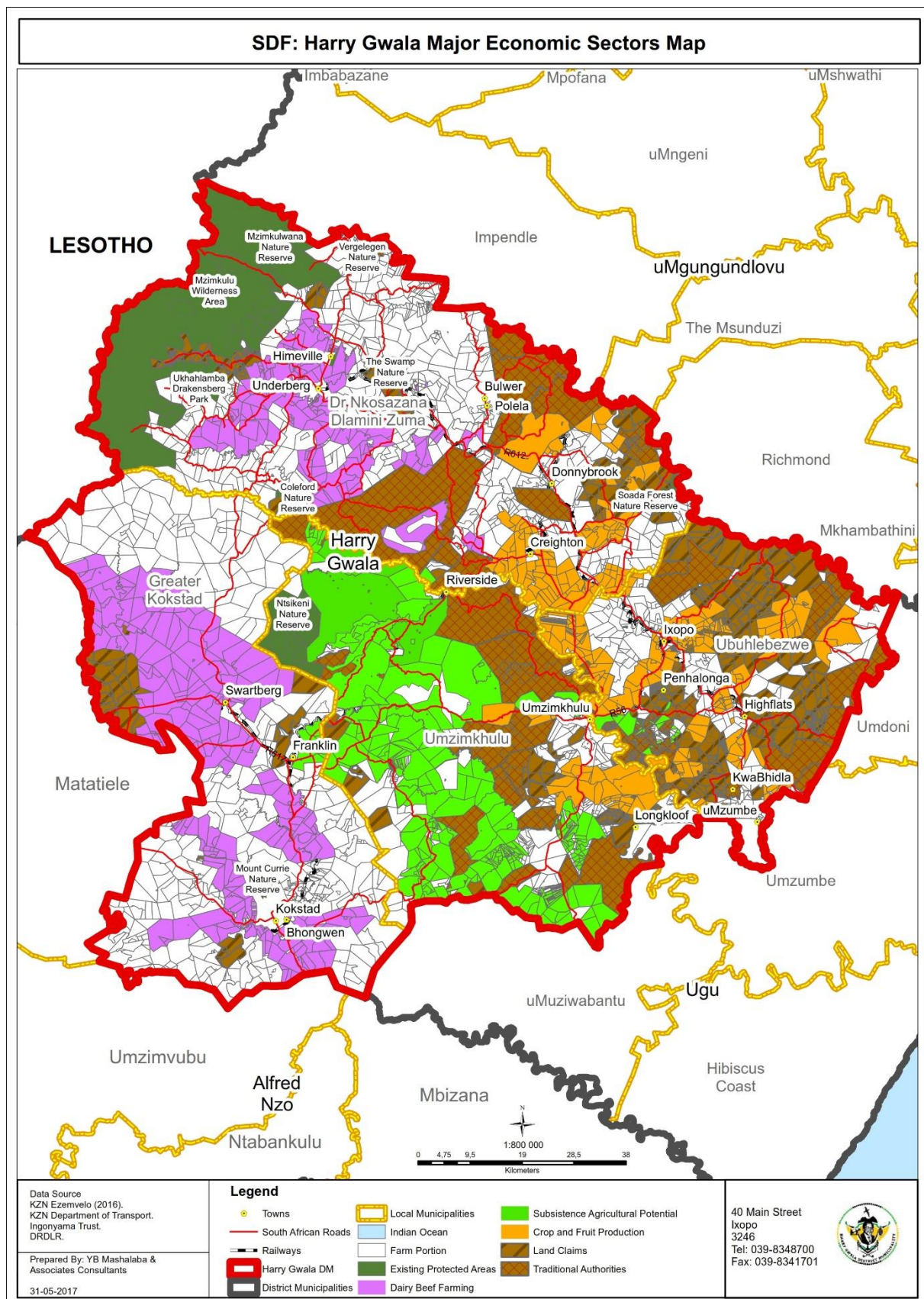
- Abundance of natural resources and agricultural land and potential to establish forward linages with manufacturing initiatives;
- Availability of low-cost labour; and
- Provision of staff with scarce skills e.g. Engineers by offering bursaries
- Development of Sustainable Local Economic Development initiatives;
- Creation of a skilled community that is self-reliant and innovative.
- There is need to expand and encourage agricultural activities through extension services, funding and training of local residents
- Abundance of natural resources and agricultural land and potential to establish forward linages with manufacturing initiatives;
- Business support services
- Tourism potential.
- Agriculture contributes proportionately more towards employment in Harry Gwala District.
- Potential production indicates a significant percentage of farmland has not been developed to its fullest
- Harry Gwala has a competitive advantage in terms of the domestic dairy industry with 10% of the milk consumed in SA coming from the district.

- Further expansion of the dairy industry is estimated to be 5% for the district.
- Opportunities for value added milk products for local markets due to import substitution
- Growing demand for timber with most of the land that is arable for forestry.
- Business incubator programs for SMMEs in timber production
- Durban harbour provides access to local maize farmers in terms of exportation of produce.
- Products from citrus farming are among the highest in the world exports rankings in South Africa and great potential for improved returns if more farmers engage more in processing of fruits.
- The soil and climatic conditions in Harry Gwala are suitable for potato farming making 44% of gross value of vegetable production.
- There is an opportunity in making flour from sweet potatoes.
- There is an increase in demand for beef with many of cattle farmers owning their own abattoirs.
- Need for projects involving commercial cattle production.
- Increasing potential in eco-tourism, agri-tourism (birding tourism for endangered species), rail tourism, mission tourism, and cultural tourism (crafts centre, museum, and coffee shops).
- Adequate investment in infrastructure, business networks and viable transport access will ensure a boom in agro processing and an increase in job creation.

3.1.24. Identified business activities and opportunities

- Rehabilitation and beautification of the Creighton and Himeville Parks thereby contributing to the tourism of these areas.
- Ixopo Milk Procurement depot has a major capital expansion project.
- The district produces 10% of the milk consumed in South Africa and expected growth of the industry is 5%.
- Imports of value added dairy products (import substitution), meaning that there are opportunities for value added dairy products for local markets
- Forestry contributes over R331million to the district's GDP which is more than 8% of the district's economy.
- Timber is mainly produced by Sappi, Mondi, Mondi/Shanduka, Mesonite, NTC and some private farmers.
- There are also value-added opportunities in pyro wood.
- A limited number of emerging farmers are engaged in timber production through SAPPI or government-supported grower's schemes.
- Harry Gwala District is ideally suited for field crop production rising consumer demand; international trade and trade agreements.

- Maize is the most important grain crop in South Africa, with export capacity enhanced by the presence of the Durban harbour.
- Products from citrus farming are among the highest in world exports rankings in South Africa, with oranges ranking 3rd, lemon and lime ranking 7th, grapefruit ranking 4th. There is a high level of fruit production in many parts of Harry Gwala District Municipality, and great potential for improved returns if more farmers engage more in processing of fruits.
- Potatoes are the most important crop in SA and are prominent in Harry Gwala District Municipality; processed potatoes are exported while domestic demand for potatoes and potato-related products are increasing.
- Livestock farming has a very long history in the district beef farming in Harry Gwala is hindered by the lack of an abattoir in the area so there is need to set up an abattoir.
- Ecotourism is one of conservation's major economic engines Harry Gwala district alone, saw a 20% increase in employment from tourism between 2000 and 2010.
- The district also engages in agro-tourism, rail tourism, mission tourism, and cultural tourism.
- Adequate investment in infrastructure, business networks and viable transport access will ensure a boom in agro processing and an increase in the creation of employment.
- The services industry is thus a noteworthy economic driver and the service industry has been growing rapidly in Harry Gwala District. Growth in employment in the services industry was also seen to be led by the retailing trade.



Map 14: Major Economic Sectors

3.3. BUILT ENVIRONMENT ANALYSIS

3.1.25. Spatial form

3.3.1.1. MAJOR LAND USES

The Harry Gwala District Municipality is mainly characterised by Tribal/Traditional areas, more especially in Dr Nkosazana Dlamini-Zuma Local Municipality, Ubuhlebezwe, Local Municipality and Umzimkhulu Local Municipality (refer to Figure 12). The Kokstad Local Municipality is mainly characterised by urban areas and some farmlands while Umzimkhulu Local Municipality is mainly characterised by farmlands.

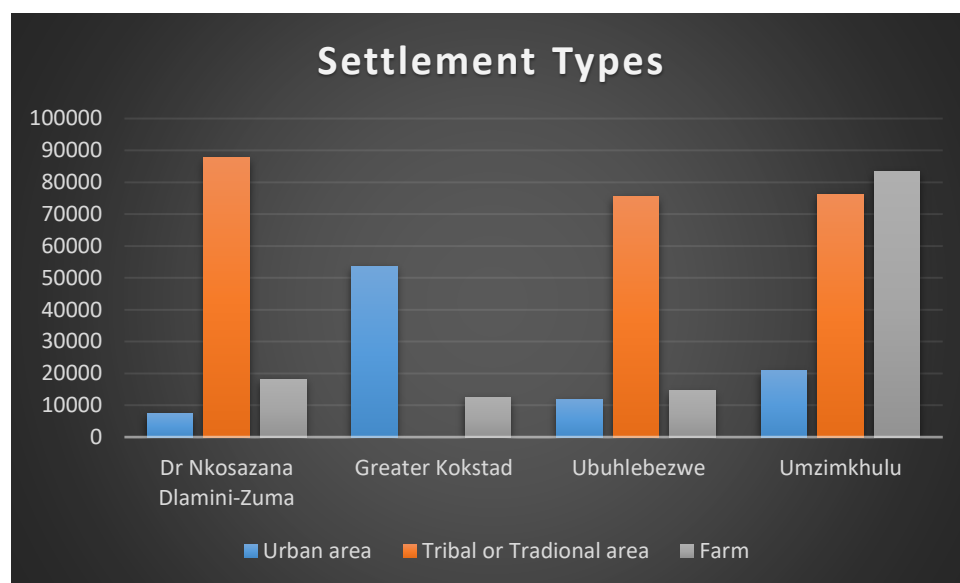


Figure 12: Geo type
Source: Stats SA (2011)

3.3.1.2. ENUMERATION AREA

The Harry Gwala District Municipality is mainly characterised by Traditional Residential, most particularly in Umzimkhulu Local Municipality, followed by Dr Nkosazana Dlamini-Zuma Local Municipality and Ubuhlebezwe Local Municipality. As illustrated in Figure 13, the Greater Kokstad Local Municipality comprised of formal residential units and commercial properties as compared to other municipalities. Small Holdings are located within the Kwa Sani Local Municipality as well as in Umzimkhulu Local Municipality.

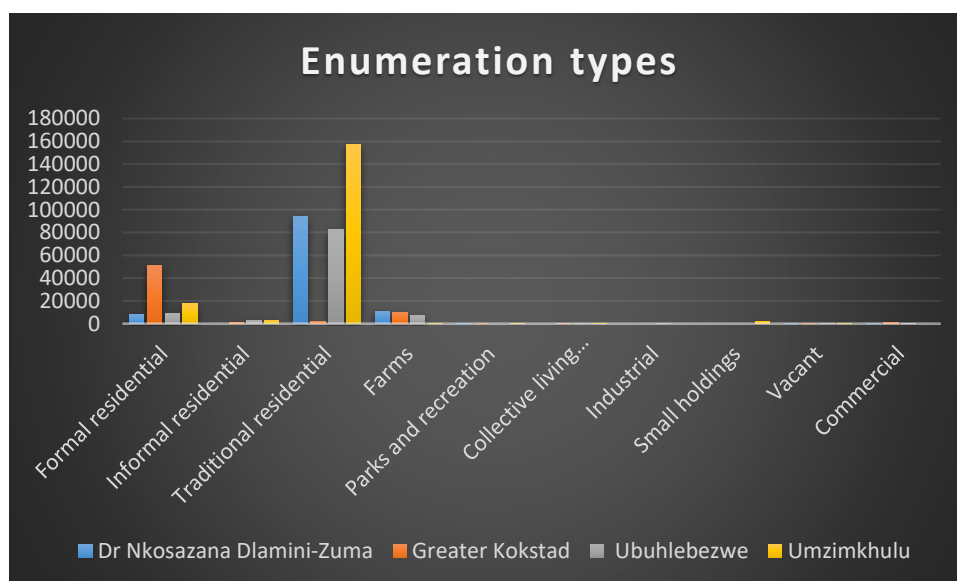


Figure 13: Enumeration area

Source: Stats SA (2011)

3.3.1.3. HOUSEHOLD SIZE

Figure 14 depicts the number of people per household in Harry Gwala District Municipality. Harry Gwala District Municipality is largely characterised by single person households, while the household size of 9 people is the least common within the district.

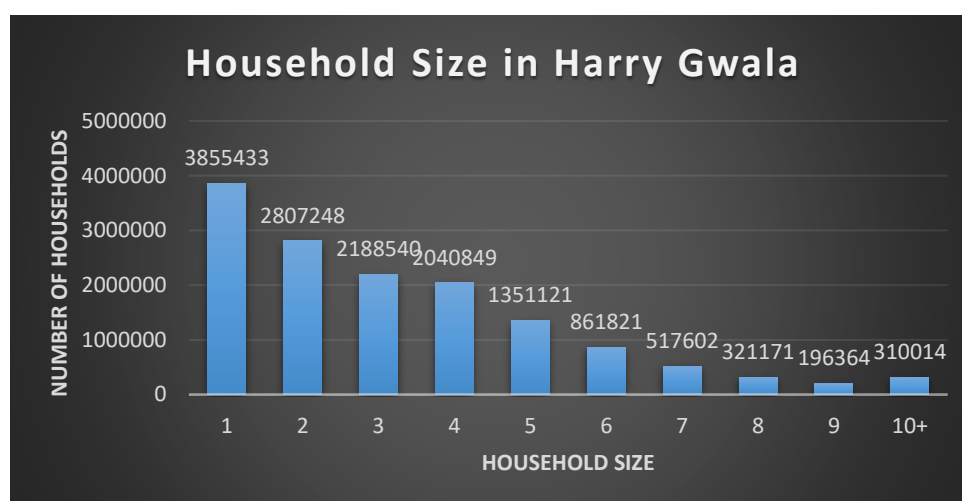


Figure 14: Household Size

Source: Stats SA (2011)

3.3.1.4. TENURE STATUS

The tenure status of Harry Gwala District Municipality is illustrated in Figure 15 below. The highest number of the houses are owned and fully paid off (41%). The second highest number of houses are rented (25%); third highest are those that are occupied rent-free (19%); while the

fourth highest are those that owned but not yet paid off (12%). The houses that are categorised as “other” are the lowest in the district (3%).

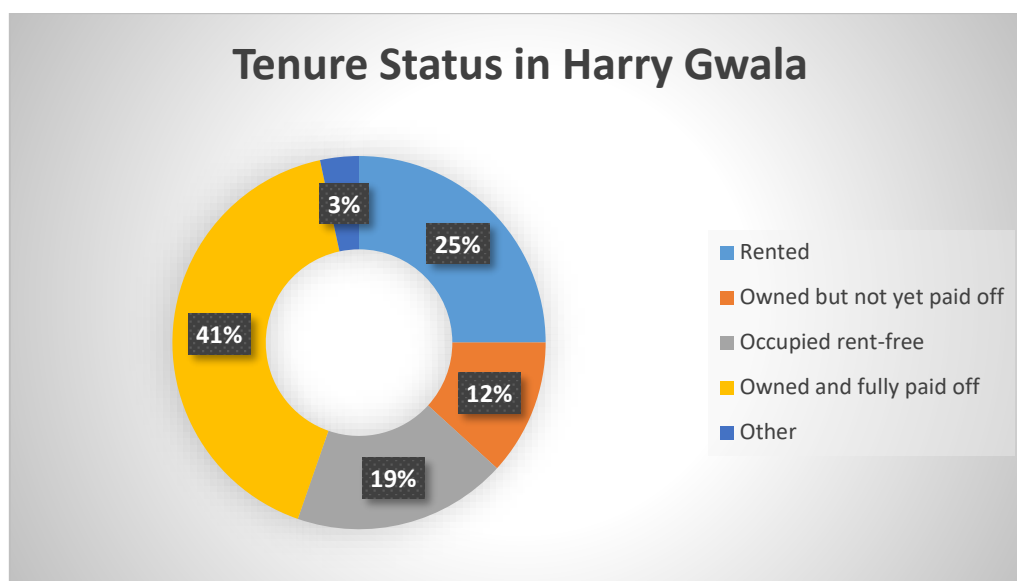


Figure 15: Tenure Status
Source: Stats SA (2011)

3.3.1.5. TYPE OF MAIN DWELLING

Figure 16 depicts the types of main dwellings in the Harry Gwala District Municipality. The most prominent type of main dwelling in Harry Gwala is houses that are on a separate stand/yard/farm, while the least prominent type of main dwelling is the caravans/tents.

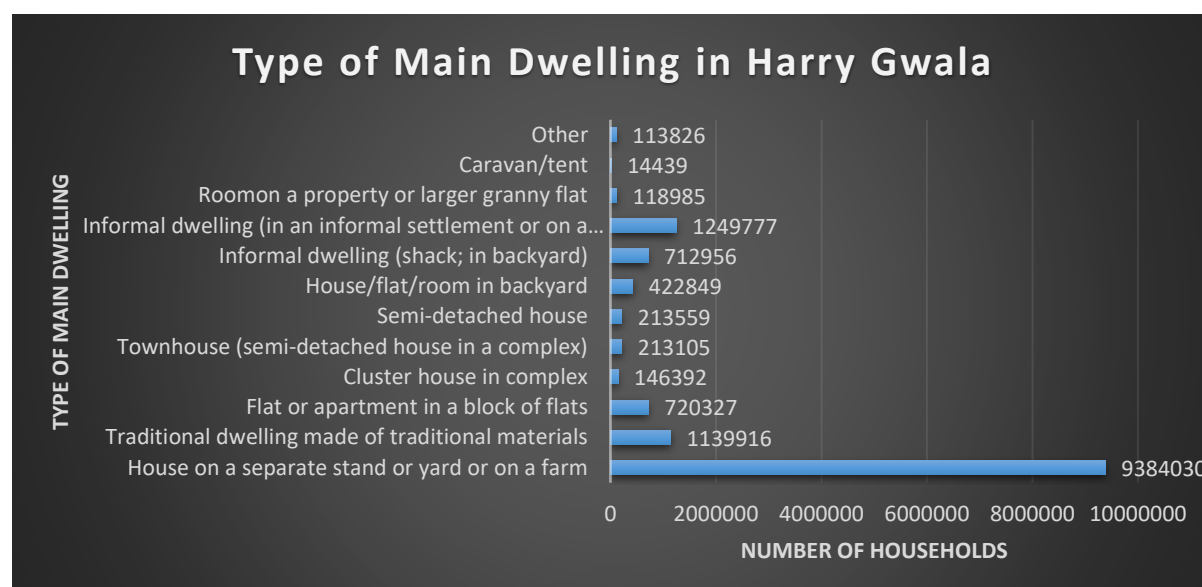


Figure 16: Type of Main Dwelling
Source: Stats SA (2011)

As outlined in Figure 17 below, the community survey conducted in 2016 indicated that traditional dwellings (64699) were the main types of dwellings within the Harry Gwala District.

Whereas in 2011 the main type of dwelling which was recorded in this district were houses on a separate stand or yard on a farm.

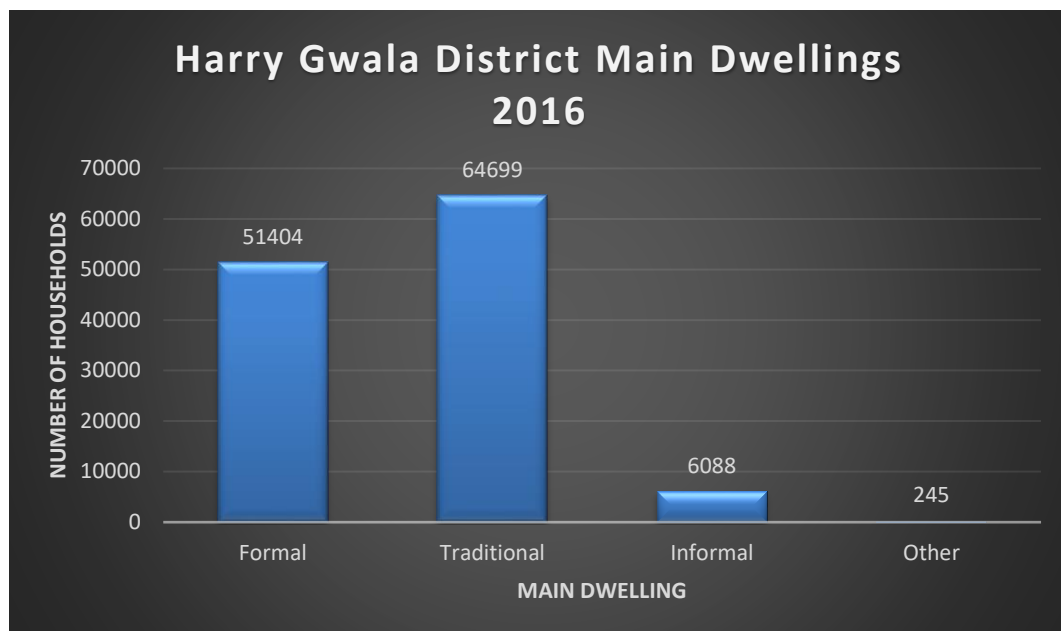


Figure 17: Harry Gwala main Dwelling
Source: Community Survey (2016)

3.3.1.6. NUMBER OF ROOMS

The number of rooms per house is illustrated in Figure 18. The district is largely characterised by houses that have four (4) rooms, while the houses that have nine (9) rooms are the lowest.

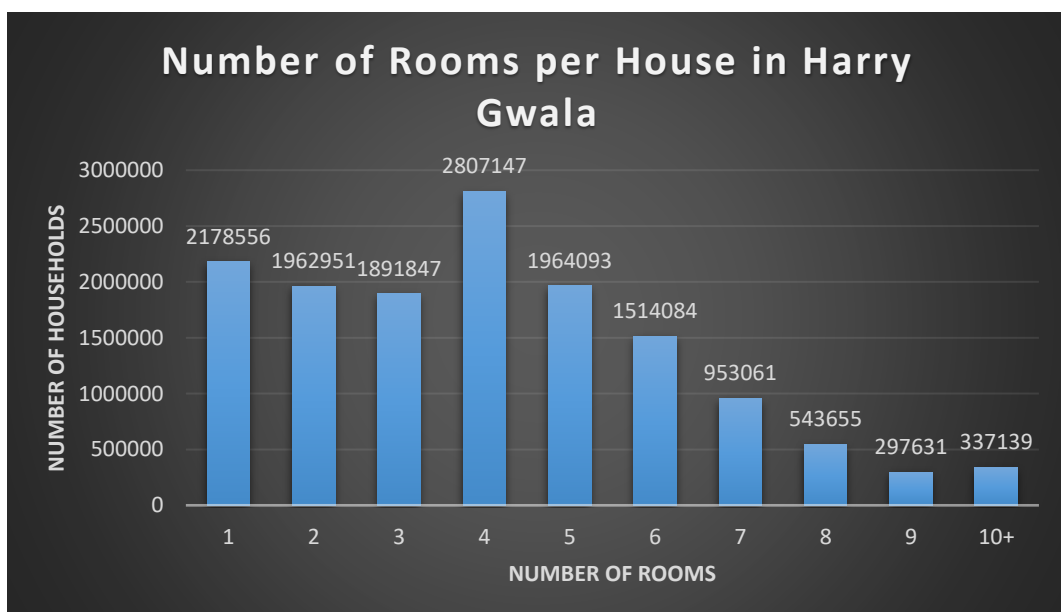


Figure 18: Number of Rooms per house
Source: Stats SA (2011)

3.3.1.7. SETTLEMENT PATTERNS

Harry Gwala District Municipality is characterised by complex settlement patterns, varying from rural to urban settlements. Rural settlements cover a large part of the district as a result of their dispersed nature. Urban settlements are located at the primary nodes and in close proximity to economic opportunities. The low densities of rural areas creates spatially disintegrated settlements, which causes problems for local municipalities in terms of providing basic services such as piped water and sanitation. There is also an issue of these settlements being a threat to the environment, as wildlife is consumed as an immediate food source rather than a sustainable resource, and the natural environment is perceived as a source for construction materials and medicinal supplies. The rapid growth of urban settlements – due to migration and the pursuit of better economic opportunities – has resulted in the emergence of informal settlements. This has created the problem of increasing housing backlogs for local municipalities. The rapid growth has also negatively impacted the natural environment due to poor agricultural practices as well as the associated increase of erosion (refer to Map 15).



Map 15: Settlement Patterns in Harry Gwala
Source: Department of Transport

3.3.1.8. INFORMAL SETTLEMENTS

Due to urbanization the area has experienced rapid population growth. As the demand for housing increases, informal settlements and slums emerge in the vicinity of towns and urban centres. The Harry Gwala SDF (2016) indicated a growing trend of informal settlements/slums within towns in all local municipalities of this district. This is due to migration of people within the rural areas of the district as well as people from neighbouring provinces such as the Eastern Cape and neighbouring municipality within the Ugu District Municipality for the purpose of being near economic and social facilities. The emergence of informal settlement is mainly caused by spatial disintegration within the district. Such informal settlements mushroom in unsuitable areas and thus cause urban sprawl. As a result, these informal settlements lack basic services.

3.3.1.9. LAND REFORM

The most land claims in the district are found in Ubuhlebezwe, followed by Dr Nkosazana Dlamini-Zuma and then Umzimkhulu. The least number of land claims in the district are found in Greater Kokstad (refer to Map 16). There have been a number of arising issues relating to reform. These include: a decline in the agricultural output recently; beneficiaries of land reform not sufficiently equipped with skills to optimally utilise the land transferred to them; slow pace of land reform and unresolved claims; which slows down the pace at which the transferred land is put back to commercial production.

3.3.1.10. TRADITIONAL SETTLEMENT AREAS

Umzimkhulu has the largest area that is covered by traditional areas in the district, followed by Dr Nkosazana Dlamini-Zuma and then Ubuhlebezwe (refer to Map 17). Greater Kokstad does not have any traditional areas within its jurisdiction. There has been an expansion of traditional boundaries and encroachment of both privately owned land and state land over the years. This has created new dialogue whereby COGTA needs to establish new traditional boundaries as well as provide guidelines that should be followed when a settlement has encroached privately or state owned land.

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3.3.1.11. HOUSING DEMAND

As the housing demand is regarded as a “*moving target*”, recent statistics are required to determine the progress that has been made by a municipality and the milestones that still need to be reached to address the backlog.

a) Dr Nkosazana Dlamini-Zuma

It should be noted that Dr Nkosazana Dlamini-Zuma Local Municipality transpired from merging Ingwe and KwaSani Local Municipalities. The demand thereof is yet to be consolidated.

Although the Ingwe Local Municipality SDF Review of 2011-2012 does not detail the size of the backlog in the municipality, it does indicate the areas that are in dire need of affordable housing, namely: Bulwer, Creighton and Donnybrook.

The KwaSani Local Municipality SDF 2013 does not outline the housing backlog within the municipality. It does, however, stipulate the need to provide affordable housing to the lower-middle income groups, more especially in the rural areas.

b) Greater Kokstad

The Greater Kokstad SDF 2012-2017 indicates that the municipality's housing backlog is standing at 9 000 units, with an estimated cost of R486 million being required to address the backlog.

c) Ubuhlebezwe

The housing projects for Ubuhlebezwe that have been approved by Department of Human Settlements have a total 7 642 units that are planned for the municipality, as stated in the Ubuhlebezwe SDF 2012-2017. This number excludes the units of Fairview, which were not mentioned in the municipal SDF.

d) Umzimkhulu

In 2008, the housing demand for Umzimkhulu was estimated to be 14 000 units categorised as 11 600 units for low cost housing and 3 400 units for middle income housing, as outlined in the Umzimkhulu SDF 2012-2017.

3.1.26. Infrastructure

Infrastructure plays a fundamental role in the modern society. It has become essential to strengthen the provision of sustainable infrastructure. The availability of adequate infrastructure connects communities, enhances economic growth and promotes health and safety in urban and rural landscape. It has thus become a governmental mandate to enhance the provision of basic infrastructure to improve service delivery backlogs to the general public. Although the Harry Gwala District Municipality has come with plans such as Transport plan,

Waste Management Plan and Water Service Development Plan to addresses service delivery and infrastructure backlogs, it cannot be denied that the issue of the provision of adequate road infrastructure and bulk services is still a major concern within the spatial form of the district. This section provides a comprehensive view regarding the fundamental roles that each department carries out as well as infrastructure analysis relating to the provision of water and sanitation services as well as electricity supply of each local municipality within the district.

The infrastructure services planned and implemented by three (3) fundamental department namely; the Water Service Department, the Infrastructure Department and the Project Management Unit. The responsibilities of these departments are outlined in Table 17.

Table 17: Municipal Departments and Responsibilities Regarding Infrastructure

| Department | Role/Responsibility |
|-------------------------------------|---|
| Water Services Department | Planning and designing of new projects, operations and maintenance of all water and sanitation services projects and schemes for all municipalities within the Harry Gwala District Municipality. Within this department, the Water Governance unit I responsible for providing regulations and support to the water service function |
| Department of Infrastructure | Implementation of water and sanitation projects through the Project Management Unit |

The Harry Gwala SDF 2016/2017 outlined that 87% of all urban centres have access to piped water, while the remaining 12% have access to community standpipes, excluding Ixopo which is served by Umgeni water. The rest of urban centres in Harry Gwala District Municipality are supplied by conventional schemes. All towns in Harry Gwala District Municipality comprise of self-contained:

- Water abstraction systems from rivers, dams and boreholes;
- Water and sanitation treatment works; and
- Fully reticulated supply systems at a high level of service

Table 18: Bulk Water Supply

| Bulk Water Supply | Capacity per day | Number of Reservoirs | Capacity per day |
|---------------------------------|------------------|----------------------|------------------|
| Urban Water Purification Plants | 22ML | 35 | 34ML |

The Draft Harry Gwala SDF (2016) indicated a surplus of 4ml/day less than the design capacity for the urban water purification plants which could supply the neighbouring rural areas. It was further outlined that Kokstad still requires additional water supply as the town is experiencing rapid growth to accommodate the low income housing units and the new C-Max Prison. In terms of the overall water supply, Harry Gwala District Municipality is in reasonable condition, further capital investment for the maintenance and upgrading of existing infrastructure is needed. With regards to the rural areas, a review of rural schemes, rural settlement schemes and commercial farming needs to be undertaken, particularly in the settlements of Ingonyama areas of the Harry Gwala District Municipality as there are still gaps with regards to available information on rural settlements.

The major basic service delivery in Harry Gwala District Municipality is sanitation and refuse removal. There are still challenges with regards to the provision of water services, more particularly in Umzimkhulu Local Municipality and Dr Nkosazana Dlamini-Zuma Local Municipality. Below is a clear illustration of the types of water supply, sanitation, electricity as well as the types of refuse removal used by each local municipality.

3.3.1.12. WATER SUPPLY

Figure 19 illustrates the different types of water sources used by each local municipality within the Harry Gwala District Municipality.

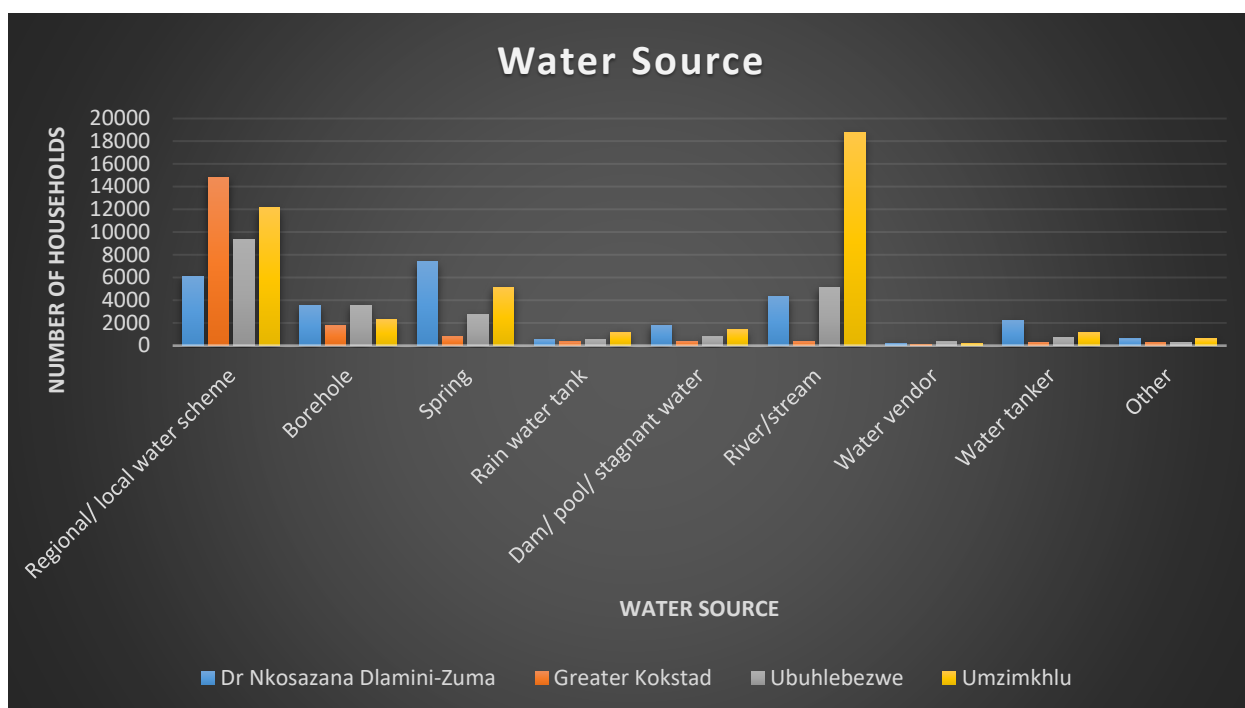


Figure 19: Water Sources

Source: Stats SA (2011)

Stats SA (2011) revealed that the river/stream is the main water source in the whole district and is used mainly by the Umzimkhulu Local Municipality. This is followed by the Kokstad Local Municipality which mainly uses the regional/ local water scheme which is operated by the municipality. Table 19 is an illustration of actual figures for each water source per local municipality within the Harry Gwala District Municipality.

Table 19: Water Services

| Municipalities | Regional/local water scheme | Borehole | Spring | Rain water tank | Dam | River /stream | Water vendor | Water tanker | Other |
|----------------------------------|-----------------------------|----------|--------|-----------------|------|---------------|--------------|--------------|-------|
| Dr Nkosazana Dlamini-Zuma | 6115 | 3541 | 7399 | 540 | 1794 | 4339 | 222 | 2189 | 594 |
| Greater Kokstad | 14824 | 1746 | 806 | 332 | 394 | 368 | 79 | 320 | 270 |
| Ubuhlebezwe | 9387 | 3568 | 2707 | 544 | 790 | 5123 | 331 | 720 | 317 |
| Umzimkhulu | 12161 | 2276 | 5155 | 1161 | 1380 | 18759 | 227 | 1153 | 637 |

Source: Stats SA (2011)

a) Accessibility to piped water

Figure 20 illustrates the different types of ways for piped (tap) water accessibility per local municipality within the Harry Gwala District. According to Stats SA (2011) it is clear that the main challenge to access water is within the Umzimkhulu Local Municipality with an estimated 20 366 households which do not have access to piped water. Approximately 10 360 households within the Umzimkhulu Local Municipality use piped (tap) water, that is located in community stands. Although there is a need for essential transformation regarding water supply within this district, the majority of households within the Greater Kokstad Local Municipality proves to have access to piped water. Only 451 households which do not have access to piped water, and this is the lowest number of households as compared to other municipalities within the Harry Gwala District Municipality.

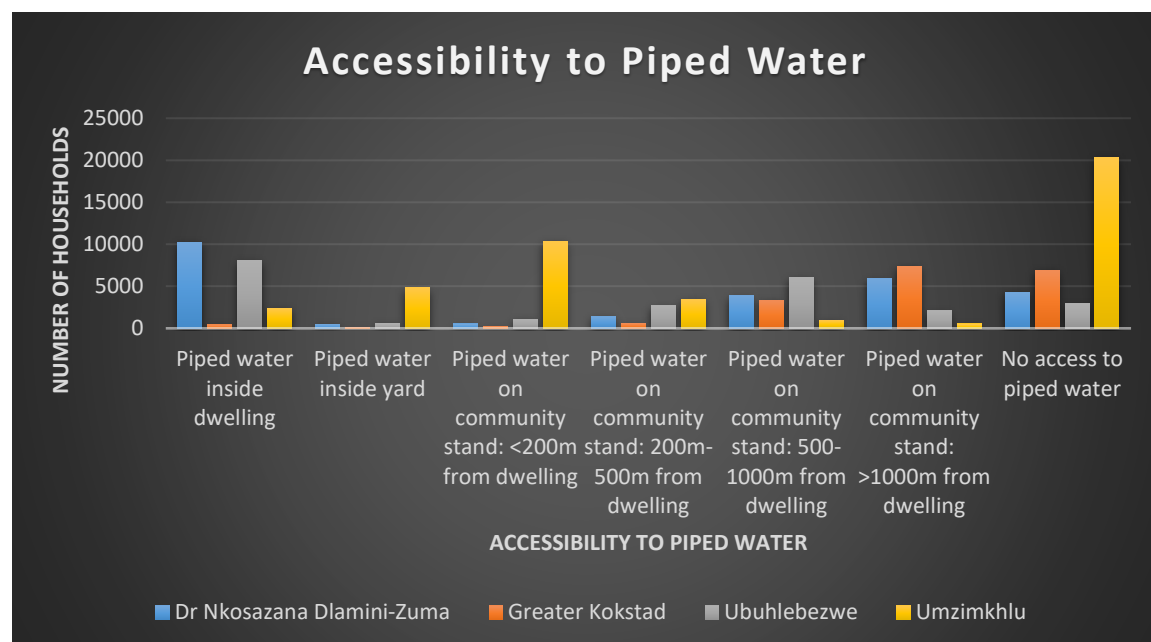


Figure 20: Accessibility to piped water

Source: Stats SA (2011)

Figure 21 below outlines accessibility to drinking water as outlined in the community survey 2016. The Community Survey 2016 highlighted that 83175 households have access to piped tap water, while the remaining 39261 households use other forms of water accessibility.

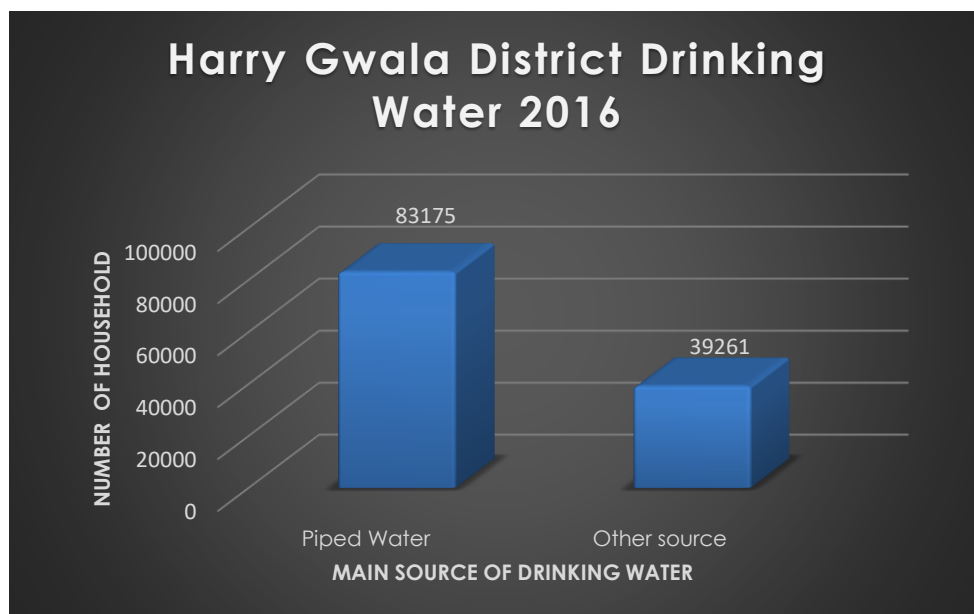


Figure 21: Accessibility to piped water
Source: Community Survey (2016)

3.3.1.13. ELECTRICITY SUPPLY

The Harry Gwala District SDF (2016/2017) indicated that alternative means of electricity supply were established for the purpose of ensuring that other areas use solar as a source of energy supply, particularly areas which are not located in suitable land where electricity can be installed. Some areas within the municipality comprise of major land uses and require major electricity supply remained on the grid electricity supply. This section details the various types of energy consumption in Harry Gwala District Municipality.

a) Energy for Lighting

Figure 22 illustrates the types of energy usage for lighting per local municipality within the Harry Gwala District Municipality.

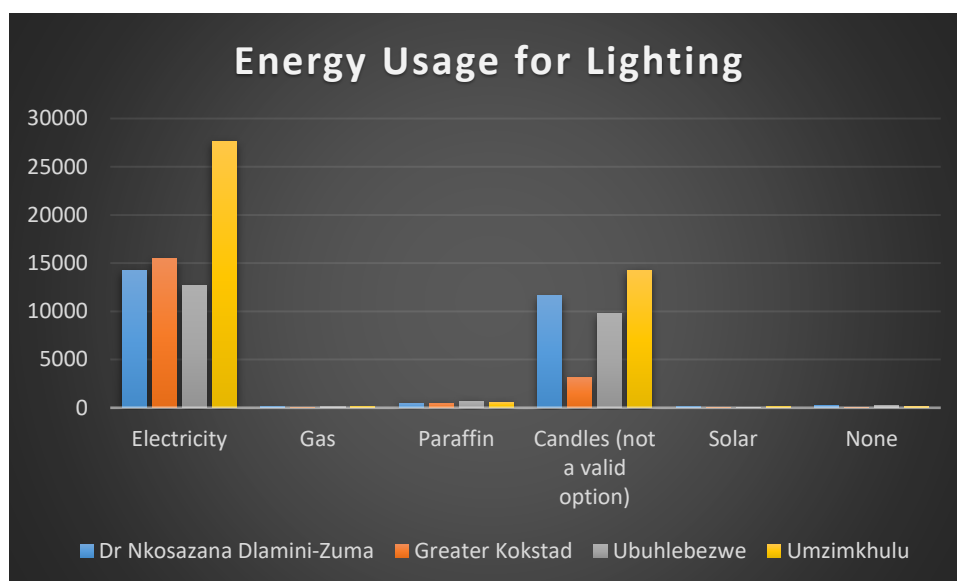


Figure 22: Energy Usage for lighting

Source: Stats SA (2011)

As indicated above, electricity is the main source of energy used for lighting throughout the whole district area in contrast to other energy sources. Although this is the case, alternative sources of energy such as candles which is highly not recommended is use for lighting most particularly in some areas of Umzimkhulu Local Municipality, followed by Ingwe Municipality.

b) Energy usage for cooking

Figure 23 below illustrates the types of energy usage for cooking per local municipality within the Harry Gwala District Municipality.

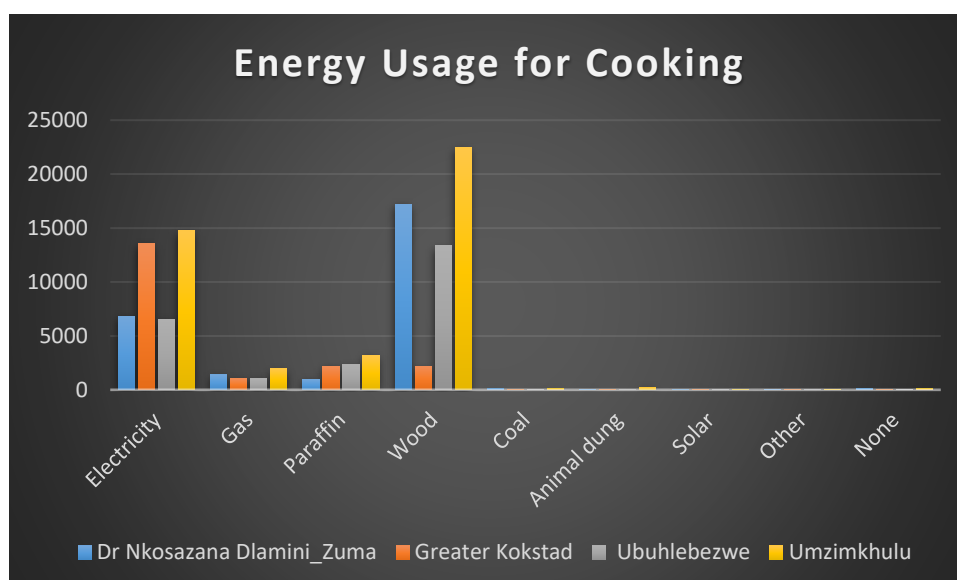


Figure 23: Energy Usage for Cooking

Source: Stats SA (2011)

The main energy source used for cooking is wood, most particularly for Umzimkhulu Local Municipality (22473) and Ingwe Local Municipality (16189; followed by electricity usage in the Greater Kokstad Local Municipality (13559). Although there are various energy sources used for electricity, the fact that there are numerous households using paraffin for cooking is worrying and several other sources of energy which do not fall in any other illustrated categories should be taken into consideration and thus prioritised for future planning.

c) Energy usage for heating

Figure 24 illustrates the types of energy usage for heating per local municipality within the Harry Gwala District Municipality.

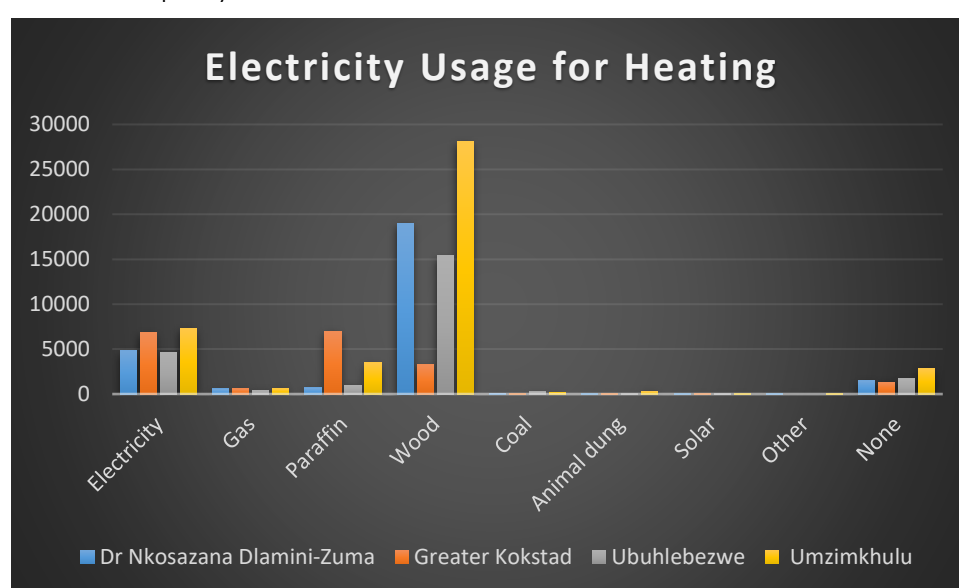


Figure 24: Energy Usage for Heating

Source: Stats SA (2011)

In all local municipalities within the Harry Gwala District, except for the Greater Kokstad municipality which mainly uses electricity for heating, wood is the main source of energy that is used for heating. Although electricity is being used as well for heating, it cannot be denied that there are still too many households which use paraffin for heating. This type of energy source has over the years proven to be a hazardous form of energy, particularly in rural and informal settlements.

Figure 25 illustrates electricity supply for Harry Gwala District Municipality in 2016. The Community Survey 2016 indicated that 101320 households are connected to the electricity, while 924 households used alternative source of energy and the remaining 20192 have no source of electricity consumption. Although the majority of the households have access to electricity, the fact that there are still households which do not have access to any source of electricity usage raises concerns.

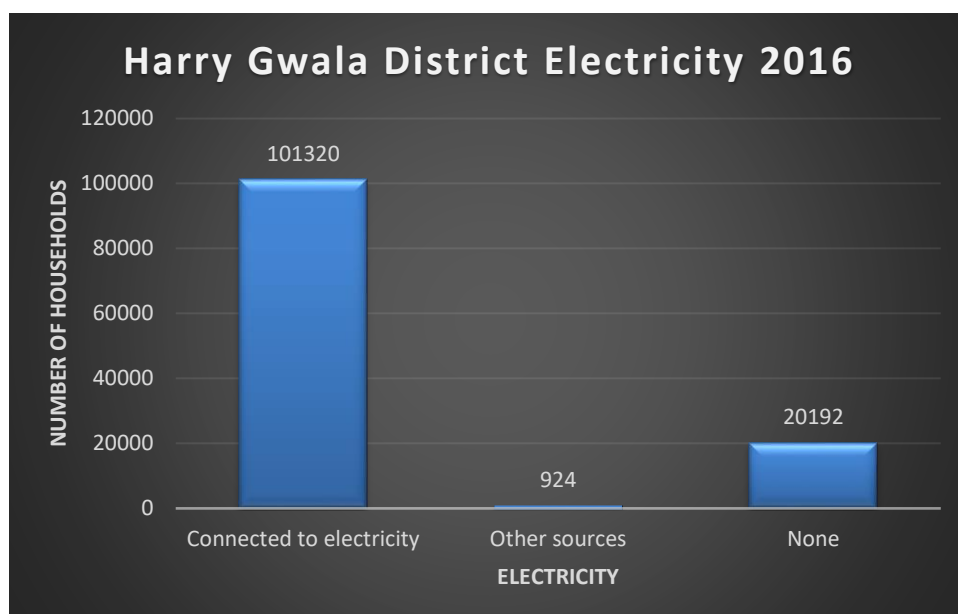
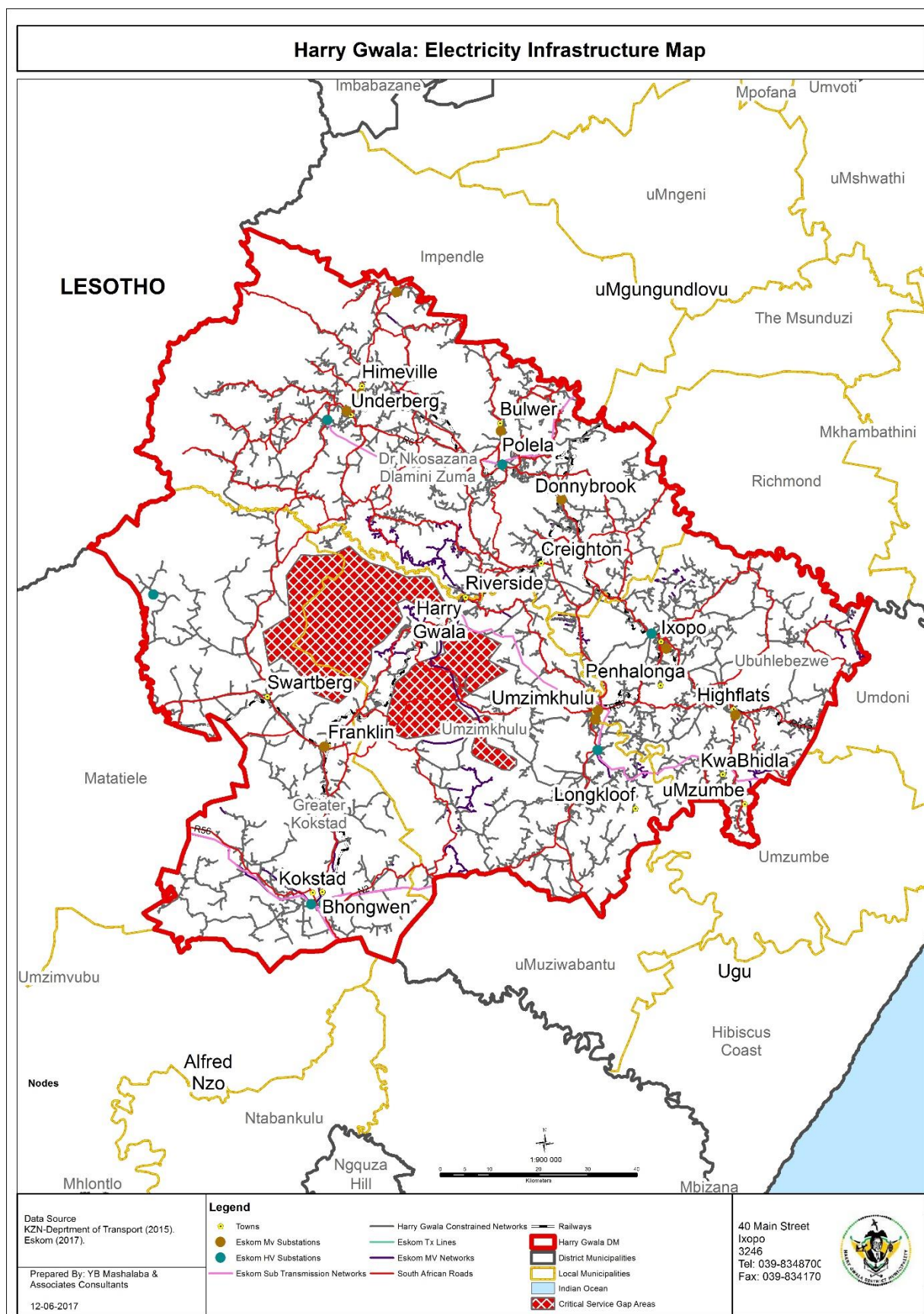


Figure 25: Electricity Supply.
Source: Community Survey (2016)



Map 18: Electricity Infrastructure
Source: KZN-Department of Transport

3.3.1.14. TOILET FACILITIES

Figure 26 illustrates the different type toilet facilities per local municipality within the Harry Gwala District Municipality. The main toilet facility used, most particularly by Umzimkhulu Local Municipality is pit toilets without ventilation. Other municipalities use pit toilets with ventilation. The main used toilet facility in the Greater Kokstad municipality is flush toilets connected to the sewerage system. As denoted below, it is clear that radical measures needs to be undertaken to address the backlog of sanitation services within this municipality. The usage of the bucket system in all of these municipalities is a worrying factor which needs to be critically addressed as it has been highlighted as part of the government mandate to eradicate the bucket system.

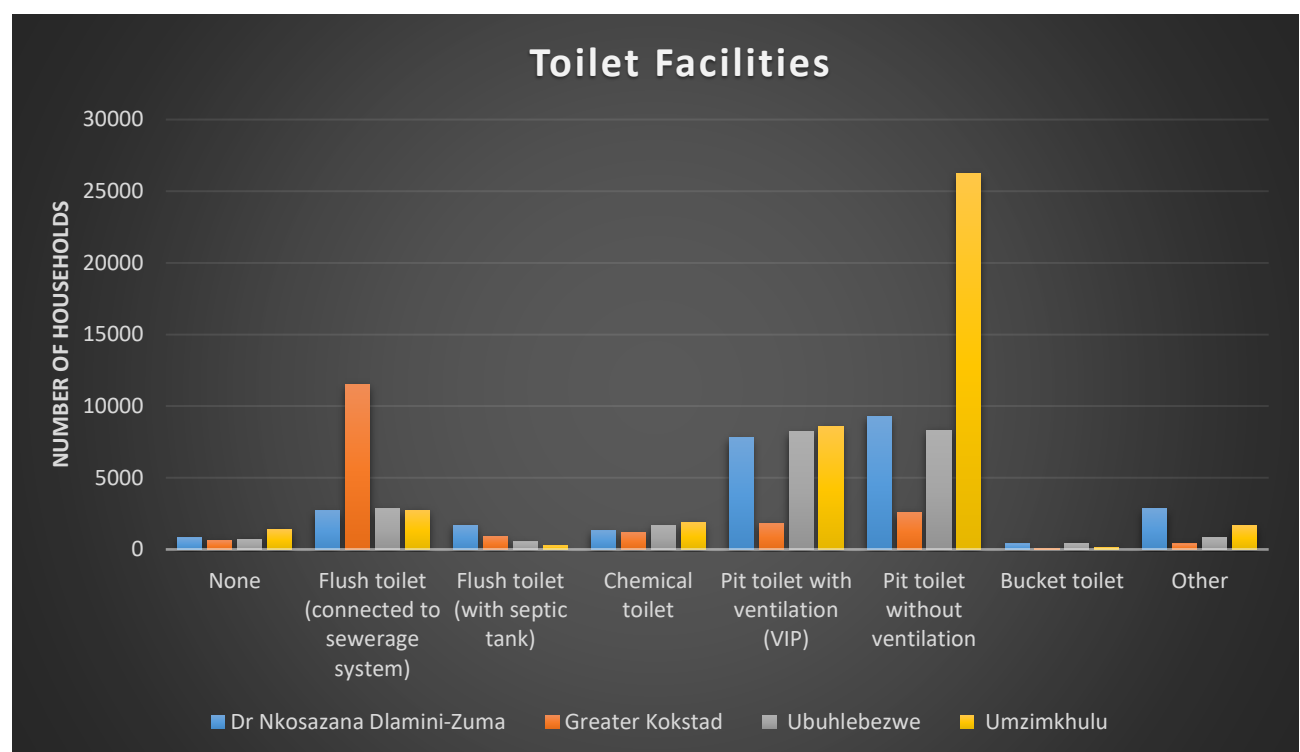


Figure 26: Toilet Facilities

Source: Stats SA (2011)

Figure 27 illustrates the different type toilet facilities per local municipality within the Harry Gwala District Municipality. The Community Survey 2016 indicated that the majority of the households (69385) used other types of toilet facilities, while (50623) households used flush/chemical toilets and the remaining (2428) had no access to toilet facilities. Access to sanitation services is a basic human rights which promotes human dignity. As part of the governmental mandate, the issue of lack of sanitation within the district needs to be address.

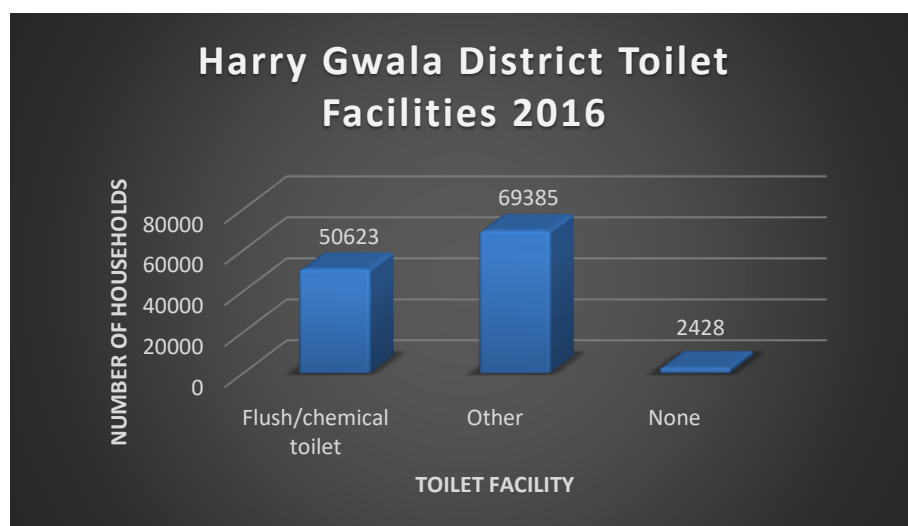


Figure 27: Toilet Facilities

Source: Community Survey (2016)

3.3.1.15. REFUSE DISPOSAL

Figure 28 illustrates the different type refuse removal services available per local municipality within the Harry Gwala District Municipality. Most of the households in all municipalities, most particularly Umzimkhulu Local Municipality, Ingwe Local Municipality and Ubuhlebezwe Local Municipality uses their own refuse dumps. Whereas the Greater Kokstad Municipality's refuse is removed by the local authority/private company at least ones a week.

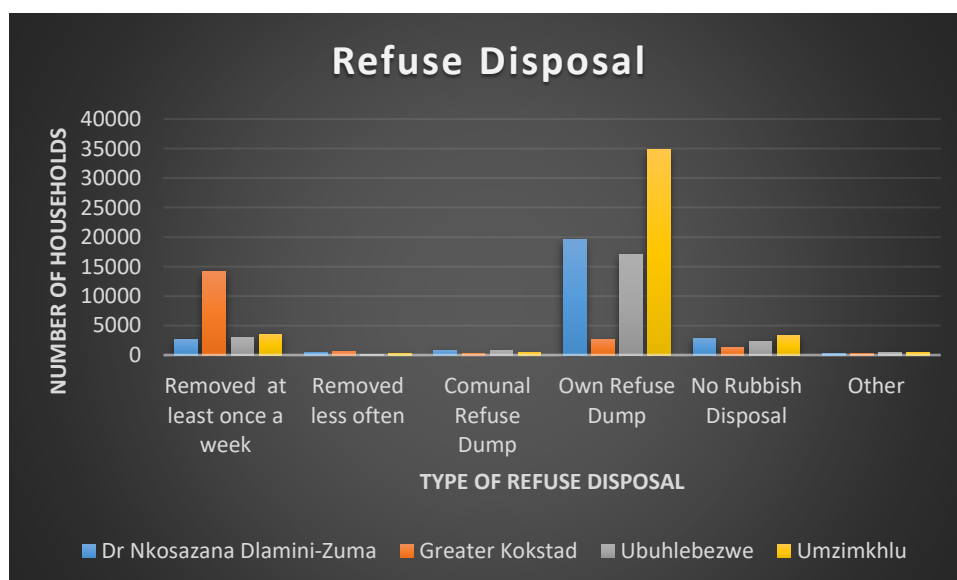


Figure 28: Refuse Disposal

Source: Stats SA (2011)

3.3.1.16. ROADS

This section details roads classifications and conditions in the Harry Gwala District, together with accessibility to each local municipality and outlines the viability of the railway system within

the district. Table 20 illustrated the conditions of roads within the district municipality. The condition of roads within the Harry Gwala District is generally poor and access is problematic during rainy weather conditions. This sections outlines the main roads classifications and conditions of municipalities within the Harry Gwala District (see Map 19).

Table 20: Roads Classifications and Condition

| Road | Which areas does it comment | Condition of the road | Responsible authority | Recommendations |
|-------------|--|-----------------------|---|---------------------------------|
| N2 | Kokstad-Port Shepstone/Durban/Umtata | Good to Fair. | Provincial Department of Transport/District/Local | Routine road maintenance |
| R56 | Kokstad-Matatiele/Cedarville/Ibisi/Rietville/Pietermaritzburg/Richmond | Fair. | Provincial Department of Transport/District/Local | Routine road maintenance |
| R617 | Kokstad-Underberg/Pietermaritzburg/Matatiele/Umtata/Lesotho | Poor. | Provincial Department of Transport/District/Local | Road Construction |

Source: SANRAL

a) Viability of the Rail System

The railway system provided the Harry Gwala District with an added advantage of improving access to economic activities. The Rail System north of R617 in Underberg within Dr Nkosazana Dlamini-Zuma Local Municipality can enhance the development of spatial integration land uses consisting of offices, residential and light industrial. This can be used as an alternative transportation system which can unleash the burden of road maintenance. Within the Greater Kokstad Local Municipality, the railway system can be used to enhance transportation of goods, while in Ubuhlebezwe the rail system can be used to enhance the tourism industry through providing tourists with additional facilities to engage in. In a nutshell, the railway system can spatially integrate all the municipalities within the Harry Gwala District, while enhancing economic development, tourism attraction, accessibility and transportation of goods in areas within the Harry Gwala District and its surrounds.

SDF: Harry Gwala Roads Classification Map



Data Source:
KZN Department of Transport (2015).

Prepared By: YB Mashalaba &
Associates Consultants

02-05-2017

Legend

- Towns
- merged roads
- Railways
- National
- Provincial
- District
- District Municipalities
- Local Municipalities
- Indian Ocean
- Roads Classification Harry Gwala DM

40 Main Street
Ixopo
3246
Tel: 039-8348700
Fax: 039-8341701



Map 19: Roads Classification
Source: KZN-Department of Transport

3.3.1.17. BUILT ENVIRONMENT KEY CHALLENGES

The following were identified as key challenges for built environment:

- The improvement of ageing infrastructure is still on stalemate and there is still major backlogs with regards to service delivery;
- The municipality does not have enough funding to allocate to the provision of new infrastructure services and for the maintenance and repair of the old infrastructure;
- Illegal connections of municipal services hinder progression for the provision of adequate basic services;
- Poor infrastructure is the main contributing factor which hinders economic development within the jurisdiction of the district municipality; and
- Due to the topography of the area, poor road infrastructure limits accessibility to the rural district when it rains.

3.3.1.18. BUILT ENVIRONMENT OPPORTUNITIES

The following opportunities were identified for the built environment:

- The Harry Gwala Municipality have established investment opportunities for infrastructure development as infrastructure is the main contributing factor towards the enhancement of economic development.
- The provision of investment for the upgrading of ICT infrastructure
- An annual review and allocation of funding for the upgrading and installation of water and sanitation service to enhance the provision of sustainable service delivery, particularly in destitute communities
- Establishment of asset management programme to facilitate and maintaining existing infrastructure.

4. SYNTHESIS AND ANALYSIS

A further analysis of the status quo is provided in this section to uncover deeper understanding of the study area. This analysis looks at how biophysical factors, socio-economic aspects and built environment all interact with each other. This then influences the spatial proposals made regarding economic opportunities, infrastructure provision and environment conservation.

4.1. REDRESSING THE IMBALANCES OF THE PAST PLANNING SYSTEM

As South African cities are still embedded upon the legacy of the previous apartheid planning, it is undeniable that the issue of enforcing measures to enhance radical transformation is in stalemate. Rural communities in different parts of South Africa are still characterised by poverty, inequality, limited access to basic social infrastructure, underdevelopment, and lack of economic opportunities, fragmented spatial patterns and environmental degradation. As a result, this has compromised the ability of these rural communities to rely on agriculture and subsistence farming for food and income/exchange benefits.

Given the past planning practices in South Africa, inequality is most prevalent in rural areas since spatial planning never prioritised these areas. Proper land use practices in these areas were in most cases done in unsustainable manner. There were no proper plans in place to manage and guide development to maximise improvement of livelihoods of these rural communities. Consequently, these areas have been left displaced, segregated, underdeveloped and impoverished.

4.1.1. Rural Development Plans

The Department of Rural Development and Land Reform has published the Comprehensive Rural Development Programme (CRDP) to deal with various challenges with delivery from identification, initiation, planning and implementation (refer to Map 20)

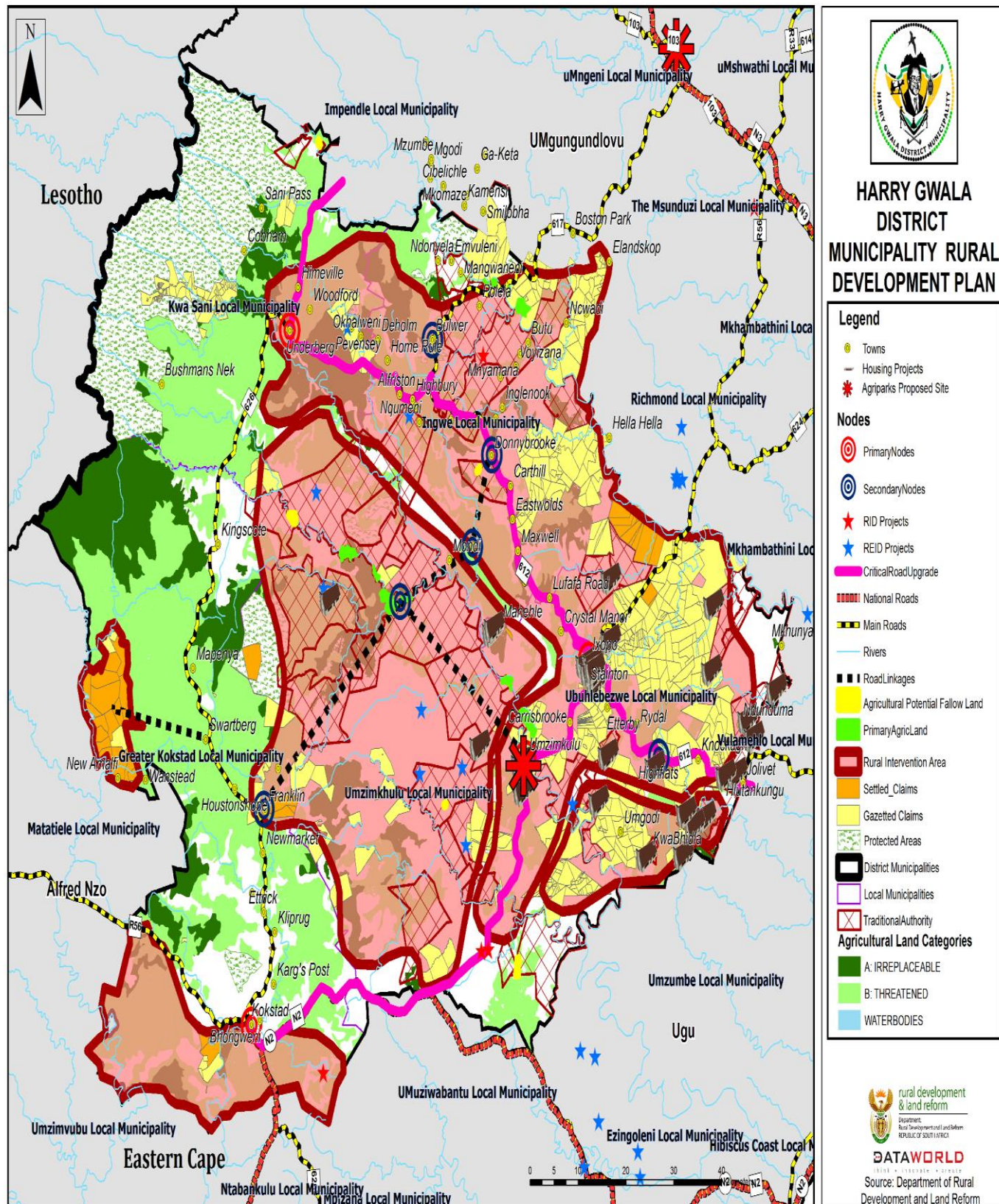
As a tool to address these challenges and to achieve the goals of the CRDP, the Department of Rural Development & Land Reform (DRDLR) has developed Rural Development Plans for all the District Municipalities in the country. These plans are well integrated and aligned with different spheres of government developmental activities. The purpose of the plans is to assist in identifying the development potential of the rural areas of and also ensure that the District's full development potential is achieved. The overall objective of the rural development plan for Harry Gwala District Municipality is to establish and grow economic development within the rural areas of the district. The more specific objectives are:

- Unlocking rural economy through agriculture and tourism
- Linking rural areas to opportunities through services

- Linking rural population to opportunities
- Harnessing and promoting natural assets

The plan is a practical working document with programs and projects reflected within the implementation plan, indicating priority programmes and projects in a phased manner, with the relevant monitoring and evaluation tools to measure progress of implementation. The rural plans aim at unlocking rural economy through agriculture and tourism, linking rural areas to opportunities through services and harnessing and promoting natural assets.

The Department of Rural Development and Land Reform have committed catalytic projects from the various branches within the KwaZulu-Natal provincial office for the 2017/18 financial year that will be aligned and give effect to the implementation of the Harry Gwala District Municipality Rural Development Plan.



Map 20: Harry Gwala Rural Development Plan.

Source (Department of Rural Development and Land Reform)

4.1.2. Socio-economic aspects in relation to the provision of housing

This section provides the housing demand projections for the different local municipalities within the Harry Gwala district. It should be noted that, the projections made in the section are solely based on the income levels of the respective local municipalities, and that there are other prerequisites that should be taken into when determining the housing demand. The Harry Gwala DM Growth and Development Strategy illustrated that Harry Gwala DM has a poverty level of 34%. This should be taken into account when identifying housing typologies which can be afforded by the average households within the each local municipality within the Harry Gwala Jurisdiction.

4.1.2.1. MONTHLY HOUSEHOLD INCOME AND SUPPORTING LEGISLATION

The Table 21 below depicts the average monthly household income for the respective local municipalities within Harry Gwala District. As indicated below, the majority of the population earn between R801-R1600. In this regard, the types of housing which can be constructed within this municipality should accommodate the income levels of the average household income to ensure accessibility to affordable housing.

Table 21: Monthly income levels for Harry Gwala DM Local Municipalities

| Monthly Household Income | Dr Nkosazana Dlamini-Zuma | Greater Kokstad | Ubuhlebezwe | Umkhulu |
|--------------------------|---------------------------|-----------------|-------------|---------|
| No Income | 3632 | 3031 | 3902 | 6688 |
| R1 – R400 | 1535 | 745 | 1628 | 3018 |
| R401 – R800 | 3119 | 1410 | 2650 | 6098 |
| R801 – R1600 | 7270 | 3879 | 6007 | 11547 |
| R16301 – R3200 | 6249 | 3738 | 5139 | 9408 |
| R3201 – R6400 | 2380 | 2231 | 2052 | 3067 |
| R6401 – R12800 | 1304 | 1918 | 1048 | 1647 |
| R12801 – R25600 | 703 | 1274 | 616 | 902 |
| R25601 – R51200 | 378 | 650 | 331 | 410 |
| R51201 – R104200 | 88 | 171 | 56 | 53 |
| R104201 – R204800 | 44 | 59 | 34 | 34 |
| >R204800 | 43 | 34 | 22 | 36 |
| Unspecified | - | - | 1 | - |

Table 22 below denotes the affordability prospects of citizens residing within the jurisdiction of Harry Gwala DM, together with the legislation in support of the provision of housing for people earning below R2 500 pm and between R 501- R7 000 pm.

Table 22: Harry Gwala DM average income levels and housing instruments

| Municipality | Average Income bracket (R801-R1600) | Housing Policies and Subsidy instruments |
|------------------------------|-------------------------------------|---|
| Dr Nkosazana Dlamini-Zuma LM | 18.25% | <p>Breaking new Ground: To delivery housing products which provides households with shelter (Social Housing instrument: Medium-density). The government will have to contribute 70% of the total costs of communal housing. This subsidy provides 30 square meter house with a cost of R16 800 per unit. This diverse rental housing cater for lower income levels (R2500-less).</p> <p>State housing financial assistance: A new subsidy has been introduced to provide access to housing credit for people earning between R3 501 - R7000 pm. In addition;</p> <p>National Housing Code 2009: In relation to (Restriction the subsidy instruments)The housing subsidies have been adjusted to accommodate persons earning below R1500, the disabled, health stricken and the aged are not compelled to pay financial contribution.</p> |
| Ubuhlebezwe LM | 14.3% | |
| Umzimkhulu LM | 12.5% | |
| Greater Kokstad LM | 14.4% | |

4.1.2.2. GOVERNMENT HOUSING SUBSIDIES

Table 23 below provides the different government housing subsidy programmes together with eligible income criteria. From the table it can be noted that only the Social Housing Programme, provides rental solutions, while the FLISP and Government Subsidise Housing provide tenure security.

Table 23: Government subsidy programmes and eligible selection criteria

| Government Housing Subsidy Programs | Ownership/Rental | Income Requirements (per month) |
|---|------------------|--------------------------------------|
| Finance Linked Individual Subsidy Projects (FLSP) | Ownership | R3, 501.00 and R15, 000.00 per month |
| Social Housing Programme | Rental | R1, 500.00 - R7, 500.00 per month |

| | | |
|--------------------------------------|-----------|-------------|
| Government Subsidised Housing | Ownership | <R3, 500.00 |
|--------------------------------------|-----------|-------------|

Table 24 below provides the estimated housing demand for the respective local municipalities. It should be noted that there are people that may fall in two categories, for example a household with a monthly income of R3, 500.00 falls in both the category of Government Subsidised Housing and Social Housing Programme.

Table 24: Types of government subsidy in respect to each LM

| Government Subsidy | Dr Nkosazana Dlamini-Zuma | Greater Kokstad | Ubuhlebezwe | Umzimkhulu |
|--|----------------------------------|------------------------|--------------------|-------------------|
| Government Subsidised Housing | 21805 | 12803 | 19326 | 36759 |
| Finance Linked Individual Subsidy Projects (FLSP) | 2380 | 2231 | 2052 | 3067 |
| Social Housing Programme | 8629 | 5969 | 7191 | 12475 |

It is evident that due to low levels of income for people residing within the Harry Gwala DM there is a possibility of emerging dependence trend on government for the provision of housing, economic, social and infrastructural services. It is with this in mind that the local municipalities needs to capacitate unemployed (economically active)community members to become labour intensive in the construction phase of integrated human settlements. This can create job opportunities, while on the other hand providing training for local contractors. The provision of human settlements should therefore be developed in the vicinity of economic activities and social facilities in order to reduce distance spend traveling to and from economic and social facilities.

It is therefore imperative that the local municipalities understand the type of housing demand within their jurisdiction, for instance the demand in Greater Kokstad (a municipality without any traditional authorities) would have a different housing demand than that of Ubuhlebezwe (a municipality largely characterised by traditional authorities). There are also other complexities which the local municipalities should be aware of, such as the following:

- Resistance to rental solutions;
- Migrant workers , that are not seeking permanent residency as they have homes elsewhere;

- Unavailability of feasible land for human settlements in close proximity to economic hubs and social amenities; as well as
- Over-dependence on the government for the provision of housing.

Notwithstanding the housing typologies outlined on the above table and the aforementioned complexities, it should also be noted that provisions can also be made for medium-high income housing units to cater for the needs of income earners falling under those categories. The development of diverse housing typologies can promote the Harry Gwala DM as an area which can attract investment opportunities since tourism and the agricultural market within the municipality still needs to be enriched.

4.2. CLIMATE CHANGE

This section provides a detailed analysis and synthesis of climate change in Harry Gwala District Municipality.

4.2.1. Flooding

Climate change results may result in flooding due to high rainfall and excessive drought which attribute vegetation loss (IPCC, 2013). Harry Gwala District Municipality is predominately dominated by rural dwellings. As such rural infrastructure are more vulnerable to climate change impacts such as loss of housing infrastructure due to floods, loss of crops and livestock and etc. Urban areas are not more vulnerable to flooding impacts however this is dependent on the presence of water harvesting facilities and water drainage facilities.

The Municipality should encourage the rural community to ensure the land is covered with vegetation to reduce surface run off and floods, this can be done through greening projects. The Municipality must ensure that drainage systems are maintained in urban areas in order to reduce flooding. The Municipality must ensure that drainage systems are maintained in urban areas in order to reduce flooding. The Municipality should also provide houses which are adequate, safe and less vulnerable to climate change impact in order to give effect to the Breaking New Ground Policy 2004.

4.2.2. Drought

Extreme events, such as droughts, can significantly affected production and income activities. There can be growing pressure on natural resources, especially water and land, due to changing rainfall patterns and temperature. Impacts of drought on water resources pose the most important challenge for these poor communities. Droughts usually affect vegetation negatively because for plants to grow well they need moisture in the soil.

Drought in this municipality can have negative impact on health and households as people may end up using untreated contaminated water from rivers. The water shortages

are also cited as contributing to food insecurity as the communities are restricted to planting certain crops, especially vegetables that demand a lot of water. The negative spin-offs of this situation can include malnutrition and increased poverty.

4.2.3. Eco-Tourism

Climate change alters weather patterns as such certain species are habitat to various areas due to their climatic conditions. Altered weather patterns may results in species migration because they cannot adapt to these weather patterns. On cases where the climate change conditions are severe it may lead to species extinction. Furthermore some species are highly sensitive to changes in temperature as a consequence it may lead to extinction. Migration and extinction of species in the long term may results in loss of tourism industry which may impact the economy.

Some species are endangered and their population continues to drop due to habitat destruction especially on grasslands. Blue swallow, Cranes, Cape Parrot, and oribi are already endangered. Environmental degradation coupled with climate change impacts may lead to the extinction of these species. Measurements should be undertaken to ensure the conservation and protection of these vulnerable and endangered species in accordance with the National Environment Management; Biodiversity Act 57 of 2003.

The Municipality must ensure that the ecological corridors are maintained to reduce climate change impact on species. The corridors allows for the movement of species and migration to favourable condition and as such extinction is avoided.

4.2.4. Human Settlement

Human settlement should be channelled away from the environmental sensitive areas. . Human activities such as removal of trees for settlement destruct other species. Illegal dumping and other waste mismanagement may impact on water resource and species when development is undertaken in environmental sensitive areas.

The Municipality should encourage and campaign and educate the community about the impact of environmental degradation to combat environmental impacts. Natural settlement boundaries can also be implemented through tree planting around Traditional Areas. This will help in preventing the impacts from strong winds, reducing erosion, trapping carbon dioxide (greenhouse gas) which contributes to climate change, working as lightning conductors and scenery of the Traditional Areas.

4.2.5. Farming and food security

Climate change results higher temperature, droughts and altered weather patterns. Due to heavy rainfall and excessive drought agricultural sector may be affected. Heavy rainfall may will cause floods which wash away the top fertile soil of which results in soil infertility and as such agricultural sector is affected. Drought results in less or little water available while agricultural activities require huge amount of water for irrigation and other operations. This will affect the agricultural sector. Certain crops are seasonal which implies that they may only be grown during that specific season, due to altered weather patterns such crops may be affected.

The Municipality should give support to farmers and also subsistence farmers in the form of infrastructure development such as developing water harvesting facilities, drought resistance crops and research initiatives. These communities are dependent on the wildlife for source of food, medicines and shelter as such environmental degradation poses a threat on biodiversity.

4.2.6. Commercial Timber

Timber plantation in terms of economic growth provides jobs and grows business within the Municipality. Plantation and timber poses threat on biodiversity and water resources. These plantation threatens indigenous species and also consume a huge amount of water of which poses a threat coupled with climate change impacts.

4.2.7. Mitigation and adaptation

Climate Change Mitigation refers to efforts to reduce or prevent emission of greenhouse gases. Mitigation can mean using new technologies and renewable energies, making older equipment more energy efficient, or changing management practices or consumer behaviour. Climate change mitigations include actions taken to limit changes in the global climate caused by human activities.

a) Energy

As indicated that there is potential for renewable energy in the form of biomass, wind farms and solar within the Greater Kokstad Municipality such should be capitalised in order to reduce greenhouse gases from the generation of electricity.

b) Drought

In order to adapt drought to climate change people need to save water and use water in a sustainable way. Water can be saved in the following ways;

- People who use more water pay an increasing higher price for it
- Introduce high tolerates plants/grass to drought because native plants can save 100,000 gallons of water per year

c) Floods

The following responses are proposed for floods:

- Reforestation in rural and urban areas, vegetation reduces surface run off
- Building dwellings that are more resistant to flooding and do away with mud structures
- People who live near the coast or river must build their homes on an elevated to a height above the area predicted food level rise
- For people who are already living on a flood zone when building choose flood damage-resistant material such as glazed bricks, concrete, stones, steel and recycled plastic lumber.
- Rather than paving a drive way, choose materials such as pavers that allow water to seep through them into the ground or gravel

d) Water

Large-scale labour-intensive clearing of invasive alien vegetation in mountain catchments to increase water supply to urban centres affected by drought as a result of climate change, and large scale restoration of water catchments and wetlands to ensure they provide a good buffer effect and filtration service during floods.

e) Temperature

- Keeping the streets unpaved or grassy surfaces because paved surfaces absorb radiation and keep heat for longer
- As temperatures are generally higher as one is closer to the ground, people should build houses that are not close to the ground
- Health service
- Health actions which can be taken will include;
- emergency medical services;
- improved climate-sensitive disease surveillance and control;
- Safe water and improved sanitation

Table 25 below depicts the adaption and mitigation strategies for the different infrastructures/sectors affected by climate change:

Table 25: Adaptation and Mitigation Strategies

| Infrastructures and sectors affected by climate change | Adaptation and mitigation strategy |
|--|---|
| Water | Expanded rainwater harvesting; water storage and conservation techniques; water re-use; desalination; water-use and irrigation efficiency |
| The agricultural sector | Planting of drought resistant crops, Utilizing seasonal crops, Adjustment of planting dates and crop variety; crop relocation; improved land management, e.g. erosion control and soil protection through tree planting |
| Health service infrastructure | Heat-health action plans; emergency medical services; improved climate-sensitive disease surveillance and control; safe water and improved sanitation |
| Transport infrastructure | Realignment/relocation; design standards and planning for roads, rail and other infrastructure to cope with warming and drainage. |
| Eco-Tourism sector | Diversification of tourism attractions and revenues; shifting ski slopes to higher altitudes and glaciers; artificial snow-making, development of species adaptation plan |
| Infrastructure/settlement (including coastal zones) | Relocation; seawalls and storm surge barriers; dune reinforcement; land acquisition and creation of marshlands/wetlands as buffer against sea level rise and flooding; protection of existing natural barriers |
| Housing | replace vulnerable houses with low cost housing which are disaster resistant |
| Energy | Biomass energy Wind farms Solar Energy |
| Storm water management | Storm water control measures must be implemented to avoid soil erosion and siltation of drainage lines. |
| Soil erosion | Vegetation must be retained where possible to avoid soil erosion. If slopes are cleared during construction, these must be rehabilitated as soon as possible to minimize soil erosion losses using local indigenous vegetation. |

4.3. SWOT ANALYSIS

Table 26 details the Strength, Weaknesses, Opportunities and Threats which have an impact on the areas within the jurisdiction of Harry Gwala District Municipality.

Table 26: Swot Analysis for the Harry Gwala District.

| | |
|---|--|
| <p>Strength</p> <ul style="list-style-type: none"> • The Municipality comprise of diverse natural attraction, areas of scenic beauty, rail tourism and rare bird species which have the capacity to enhance the tourism sector of the municipality. • The Agricultural industry is more labour intensive and is located strategically along the R612 and R56. • A fairly developed institutional arrangement has been created for emerging farmers to provide support in terms of education though public and private enterprises. • Nodal Development and Precinct Plan Studies have been undertaken for areas which require urban regeneration. | <p>Weakness</p> <ul style="list-style-type: none"> • The most effective tourism strategy has not been established to unlock development opportunities in this regard. • Although the Agricultural sector provides employment opportunities, especially in Ixopo; lack of housing opportunities provides constraints with regards to productivity as employees travel far to access workplace. • Roads within the municipality are in poor condition. This also hinders flexible transportation of people and trade of goods. • There is lack of proper maintenance and rehabilitation of infrastructure • There is lack of capital for emerging farmers and limited funding for development projects outlined for prioritization in Urban Regeneration Plans for Nodal Developments • Dispersed settlements patterns increasing costs for basic service maintenance and rehabilitation • Climate change impacts such as drought, temperature, storms and heavy or little rainfall • The District Municipality does not have a climate change response strategy • Illegal dumping and littering which impact on natural resources and visual impact • Land use competition due for development of various projects • Timber and plantation competing with indigenous plants |
| <p>Opportunity</p> <ul style="list-style-type: none"> • The rail tourism industry can be expanded to unlock opportunities to enhance tourism attraction through a variety of natural and diverse bird species to provide a unique experience of tourism within the municipality. • Ixopo is strategically located where development opportunities for industries, commercial and other economic activities can be unlocked. • Opportunities which can be explored to enhance the economy of the municipality includes: <ul style="list-style-type: none"> ✚ Organic Farming ✚ Fresh Produce Market ✚ Chicken Abattoir • All these protected areas provide opportunities for tourism • uKhahlamba-Drakensberg Park World Heritage Site provide opportunity for the protection of the natural environment | <p>Threats</p> <ul style="list-style-type: none"> • The implementation of strategic projects for tourism depends on the buy-in of all stakeholders and availability of funding. Without these, the process of enhancing the tourism industry may be in stalemate. • External factors such as HIV/AIDS • Climate conditions vs spatial planning (detail out): influencing the supply and demand of the market force can hinder success of production within the agricultural sector. • Unsettled Land claims impacting on sustainability of agricultural production • Lack of interest in agriculture by the youth • Stock theft which may lead to demotivation of emerging farmers • Continues lack of proper maintenance and rehabilitation of roads |

| | |
|---|--|
| <p>and heritage while providing economic opportunities through the creation of local jobs.</p> <ul style="list-style-type: none"> • Maloti-Drakensberg Transfrontier Project provides an opportunity for economic growth through the creation of jobs and indirect small business development. | <ul style="list-style-type: none"> • The emergence of uncoordinated land uses and urbanizations may pose a threat to the environmental land scape of the district. • Climate change poses a threat on the biophysical environment, livelihood and the economy of the Municipality. • Uncoordinated rural settlement development poses a threat on the natural forest. • Commercial timber and plantation threatens indigenous forest. • Alien plant infestations, particularly wattle and gum, threaten the forest edge by creating an elevated fire risk and by inhibiting the establishment of ecotone plant species. • Economic growth, urbanisation and population growth results in high dependency for space which poses challenges on the natural environment. • Degradation of natural and heritage resources due to growth in tourism. • Impact on wetlands and biodiversity due to various developments such as settlements. |
|---|--|

4.4. STRATEGIC INTERVENTIONS

Tabulated below is a summary of strategic interventions required for the identified key issues in Harry Gwala District Municipality:

Table 27: Proposed strategic interventions for economic development and service provision

| Key Issues/ Proposed Strategy | Rationale | Required Intervention | Identified Sites | Site selection considerations |
|--|---|---|---|---|
| Administrative and Economic Zones | Administrative Centres and economic activity zones needs to be highly established in the vicinity of nodal points to promote accessibility and minimise distance between economic activities, social and settlements. | Mixed land use activities needs to be established in the intersection of activity spines. Public Transport Stop needs to be created in the vicinity of economic centres, social facilities and along access roads to rural settlements. | Urban centres of Kokstad, Umzimkhulu, Ixopo, Uderberg/Himeville | Availability of infrastructure and unresolved land issues |

| Key Issues/ Proposed Strategy | Rationale | Required Intervention | Identified Sites | Site selection considerations |
|-------------------------------------|--|--|---|---|
| | | ICT programmes needs to be incorporated inside public libraries and training centres in order to provide knowledge on the utilization of information technology. The attainment of these skills can assist in the establishment of businesses which can enhance the marketing opportunities for Drakensberg Tourism Site as a tourism attraction and entertainment events occurring within the municipality. | | |
| Rural Restructuring | There is a need to enhance accessibility to in traditional/rural settlements. This can be conducted through: <ul style="list-style-type: none"> • Maintenance of roads • Mobilizing support for local businesses | Establish programs to mobilize support to strengthen the agriculture and tourism sector Encourage/educate/subsidise the protection or reduction of disaster prone settlements (programme or strategy for this in LMs). | Ntsikeni, Lourdes, GowanLea, Centacow, Kilmon,Ncwadi, Stepmore, Ntwasahlobo, Makhoba, Nokweja and Jolivet | Topography Availability of infrastructure Accessibility Resolved/unresolved land claims Traditional authorities |
| Integrated Human Settlements | There is a need to reduce housing backlog throughout the entire district. | Ensure the provision of adequate housing to reduce housing backlogs within the municipality. | All areas within the DM jurisdiction | Availability of infrastructure, suitable land and location for different |

| Key Issues/ Proposed Strategy | Rationale | Required Intervention | Identified Sites | Site selection considerations |
|---|---|---|---|--|
| | <p>The promotion off mixed land use to use land efficiently.</p> <p>The promotion of acceptable densities in suitable locations</p> | <p>Promote sustainable development through taking into account the CSIR guidelines in the integration of human settlements with social amenities based on population threshold and other factors which can influence the demand and supply of housing units to reach an equilibrium point.</p> <p>Formalization of informal settlements located in suitable land.</p> | | housing typologies |
| Growth and development in Nodal Points | <p>To enhance the economic activities in identified growth points the following economic activities needs to be carried out:</p> <ul style="list-style-type: none"> • Attracting Investment opportunities • Create job opportunities • Accessibility to improved tourism hub. • Diverse Educational Facilities; | <p>Promote land use programmes which focuses on the creation of aesthetic appeal and densification.</p> <p>Create a neighbourhood hub which promotes mixed land use development and efficient use of land.</p> <p>Rehabilitate roads and rebuild dilapidated buildings.</p> | Franklin, Creighton, Donnybrook, Bulwer and Highflats | <p>Accessibility</p> <p>Availability of infrastructure</p> <p>Construction of new buildings and maintenance of old buildings and infrastructure</p> <p>Rehabilitation of roads</p> |

| Key Issues/ Proposed Strategy | Rationale | Required Intervention | Identified Sites | Site selection considerations |
|--|--|--|------------------------------------|--|
| | <ul style="list-style-type: none"> Intensification of ICT infrastructure and Use; Partnerships with educational facilities (running of programmes & facilities' management); | <p>Strengthen the agriculture and tourism sector to create employment and business opportunities in destitute communities.</p> <p>SEDA Technology Programme is one of the divisions of SEDA which focuses mainly on technological skills development programmes for small businesses. This can be utilized as a strategy to enhance small business within the municipality.</p> | | |
| Local Economic Strategy to enhance agricultural sector. | There is a need for the municipality to resolve land claim issues in order to ensure adequate use of land to promote agricultural development within the DM jurisdiction. Dairy Events should be conducted in Underberg to create networking opportunities and entertainment for farmers in order to provide a platform to present and discuss development opportunities for | Introduction and implementation of the agricultural sector strategies to strengthen growth and development with the promotion of: Food Security Self-Sufficiency Trade Mobilizing support for emerging farmers/entrepreneurs | Kokstad Umzimkhulu Underberg | Assessment and Acquisition of suitable land for agricultural purposes. |

| Key Issues/ Proposed Strategy | Rationale | Required Intervention | Identified Sites | Site selection considerations |
|---|--|--|--|---|
| | farmers, emerging farmers and professionals from related fields. This is due to the fact that this location is closer to N3 and thus accessed through R617 on the west and can be accessed on the N2 via the R617 on the east. | | | |
| Land Use Management | There is a need for an effective land use management system, more particularly in rural areas. | Development and Implementation of Land Use Management Schemes/Urban and Rural | Dr Nkosazana Dlamini-Zuma Ubuhlebezwe Umkhulu LM | Availability of Land Use Management Tools |
| Sustainable Use of Resources | Traditional communities rely on the utilization of natural resources (wood) to carry out their daily livelihood routines | Introduce rural citizens and traditional leaders to the concept of sustainable use of resources | Traditional Authorities Settlements | Areas in close proximity to indigenous forests and protected areas Areas without land use management tools |
| Delineate direction of growth in traditional Authorities | There is a need to strengthen communication between traditional authorities and the municipal council to reach an agreement based on the development of the desired spatial form for | Traditional Authorities should identify areas where future settlements should occur as well as "no-go" areas | Traditional Authorities Settlements | Areas in close proximity to indigenous forests and protected areas |

| Key Issues/ Proposed Strategy | Rationale | Required Intervention | Identified Sites | Site selection considerations |
|---|---|--|---------------------------|--|
| | the entire municipal area. | | | |
| Reiteration of the spatial vision | Proper communication channels between land owners and the municipality needs to be embodied to ensure that any developments that may occur upon land claim resolutions is aligned with the spatial vision of the municipality. | Alignment of land owners plans with the district and local municipalities' spatial vision | The entire municipality | Parcels with land claims on them |
| Rehabilitation of roads infrastructure | Road conditions is good to fair. While other roads are in a poor condition. | Routine road maintenance of regional and national (N2 and R56) Road Construction (R617) New Road development (Rural roads) | N2 R56 R617 R612 | Road condition |
| Road Network | There is a need to enhance spatial integration through linking strategic growth points of the municipality to strengthen the economy, infrastructure and accessibility. This road linkage can enhance the economic potential of the municipality through flexible movement of goods and people. | A road network is proposed at the central strategic development point of Harry Gwala along Riverside. Riverside is linked with Lourdes, Gowan, which runs towards Rietvlei and Ibisi on the southern side of Riverside. Riverside is also linked to Ntsikeni and moves towards southern side of Franklin. Riverside is | | Topography Existing Road conditions |

| Key Issues/ Proposed Strategy | Rationale | Required Intervention | Identified Sites | Site selection considerations |
|-------------------------------------|-----------|--|------------------|----------------------------------|
| | | also connected with Creighton on the north eastern side, This road network reiterates with the identified nodes (Umzimkhulu, Kokstad, Underberg) | | |

4.5. THE BUILT ENVIRONMENT CONCEPTUALIZATION

The Harry Gwala DM Built Environment Concept has been embedded in accordance to the urban and rural features of each respective local municipality, to accommodate and create access to various land use patterns (residential, economic, ecological and social facilities) for the purpose of stimulating economic growth, infrastructural development and upliftment of live hoods for communicates residing within the jurisdiction of Harry Gwala DM.

The Built Environment Concept Map entails the identified hierarchy of nodes and corridors, together with the available infrastructure (Sanitation and water schemes; electricity). The identification of nodes and corridors as well as infrastructural development guides the manner in which growth can be directed within the municipality by also taking into account the preserved and ecological features of the municipality. In essence, the Harry Gwala DM Built Environment concept map seeks to promote sustainable development, through creating a balance between economic development, infrastructure provision and the conservation of the natural environment in order to improve the lives of communities residing within the jurisdiction of Harry Gwala DM. For a detailed depiction of the Built Environment Concept Map (refer to **Annexure A**).

The Harry Gwala DM also prides itself with ecological features. As part of enhancing sustainable development through the conservation of the natural environment, the Environmental Concept map comprise of a depiction of threatened ecosystems, agricultural land use categories, critical biodiversity areas, disaster prone areas as well as protected areas and ecological corridors. The identification of the above-mentioned ecological features, plays a fundamental role in ensuring the preservation of the natural environment, together with the promotion of agricultural land and strengthening of ecological corridors. For a detailed depiction of the Environmental Concept Map (refer to **Annexure B**).

5. SPATIAL VISION AND SDF PRINCIPLES

The spatial vision and principles of the Harry Gwala District Spatial Development Framework are in alignment with the SPLUMA development principles, as indicated below:

| | |
|-------------------------------|--|
| Spatial Justice: | <ul style="list-style-type: none">• Redressing the spatial and development imbalances of the past• Addressing the inclusion of the people that were previously excluded• Catering for the entire municipal area |
| Spatial Sustainability | <ul style="list-style-type: none">• Ensuring the protection of prime and unique agricultural land• Upholding land use measures that are consistent with environmental management instruments• Promoting land development in sustainable locations |
| Efficiency | <ul style="list-style-type: none">• Optimising the use existing resources and infrastructure• Minimising negative financial, social, economic and environmental impacts |
| Spatial Resilience | <ul style="list-style-type: none">• Promoting flexibility within the SDF to ensure sustainable livelihoods in communities, more especially those that are likely to suffer from economic and environmental shocks. |
| Good Administration | <ul style="list-style-type: none">• Integrating the inputs of sector departments in the preparation of the SDF• Inclusion of a transparent public participation process to afford all parties the opportunity to provide inputs• Clearly setting out the SDF for informing and empowering the public |

In addition to the other sector department policies, the vision and principles of the Harry Gwala District SDF are also in alignment with the district and provincial Growth the Development Strategies. The vision of the Harry Gwala SDF is as follows:

“The Harry Gwala District Municipality aspires to have a better quality of life and spatial efficiency with improved access to areas of economic and social opportunities through an

improved public transport, network system and infrastructure in an environmentally sustainable manner by 2035.”

This vision will be achieved through the successfully implementation of the following SDF principles:

Table 28: SDF Principles

| SDF Principles | SPLUMA Principles | HG GDS Mission Statement | KZN Strategic Goals |
|--|---|---|---|
| <ul style="list-style-type: none"> Engagement with stakeholder representatives on policy, planning and implementation at national, sectoral and local levels is central to achieving coherent and effective planning and development. | <ul style="list-style-type: none"> Good Administration | <ul style="list-style-type: none"> Honest and Transparent Governance | <ul style="list-style-type: none"> Governance and Policy |
| <ul style="list-style-type: none"> Foster the provision of basic services (water, sanitation, access and energy) to all households Promote the principle of administrative, spatial, economic and biophysical self-sufficiency; Encourage Development / investment that focuses on local economic growth and/or economic potential Channel future settlement and economic development into activity corridors and nodes that are adjacent to or that link the main growth centres as well as urban areas (SPLUMA Principles); Optimise the use of existing resources and infrastructure by extending its impact for communities | <ul style="list-style-type: none"> Efficiency | <ul style="list-style-type: none"> Appropriate and Reliable Infrastructure Services according to the SDF priorities Access to jobs by providing an enabling environment for investment and facilitating skills and SMME development Safety and Security through zero tolerance of wrong doing at all level Improved Municipal Health Services | <ul style="list-style-type: none"> Strategic Infrastructure Inclusive Economic Growth |

| SDF Principles | SPLUMA Principles | HG GDS Mission Statement | KZN Strategic Goals |
|---|--|--|---|
| <ul style="list-style-type: none"> Assess each areas' unique competencies towards self-reliance and need to consider the environment, human skills, infrastructure and capital available to a specific area and how it could contribute to increase its self-sufficiency Prioritization of human capital development (education and training, social transfers such as grants and poverty-relief programmes in localities with low demonstrated economic potential, development / investment Accommodate access to secure tenure through Land development procedures | <ul style="list-style-type: none"> Spatial Resilience | <ul style="list-style-type: none"> Lobbying the Provincial Government for <ul style="list-style-type: none"> Better Quality of Education Improved Healthcare facilities Appropriate Land Reform | <ul style="list-style-type: none"> Human Resource Development Human and Community Development |
| <ul style="list-style-type: none"> Balance the level of development between urban and rural landscapes, such that they support each other | <ul style="list-style-type: none"> Spatial Justice | | <ul style="list-style-type: none"> Spatial Equity |

| SDF Principles | SPLUMA Principles | HG GDS Mission Statement | KZN Strategic Goals |
|--|--|--------------------------|--|
| <ul style="list-style-type: none"> • Discourage urban sprawl by promoting densification of settlement at existing and proposed nodes and settlement corridors; • Promote environmentally responsible behaviour through incentives and disincentives • If there is a need for low-income housing, it must be provided in close proximity to areas of opportunity • Protect prime and unique agricultural land, the environment and other protected lands • Direct new development towards logical infill areas • Promote sustainable use of fiscal, institutional and physical resources • Direct Development / investment to sustainable locations • Stimulate and reinforce cross boundary linkages; • Encourage the reduction of resource use, as well as the carbon intensity of the economy, during planning processes and subsequent development, (National Strategy on Sustainable Development) • Ensure that all proposed developments go through a rigorous assessment according to the National Environmental Management Act 107 of 1998 regulations for the preservation of natural resources while acting pre-emptively with regard to development activities within the District Municipality. | <ul style="list-style-type: none"> • Spatial Sustainability | | <ul style="list-style-type: none"> • Environmental Sustainability |

6. SPATIAL DEVELOPMENT STRATEGIES AND PROPOSALS

The draft SDF is a combination of the all the spatial development strategies, namely nodal/hierarchy planning; conceptual spatial planning and structure planning; transport planning; densification framework and human settlements as well as service gap areas.

6.1. NODAL/HIERARCHY PLANNING

Nodal Planning enhances the provision of adequate infrastructure, improves efficiency and provides a variety of land uses (economic, housing and social facilities) as well as public transportation in the vicinity of communities. Nodal planning provides intended linkage between the SDF area and other neighbouring areas through major transportation routes. In this regard, corridors are established to provide a well-designed connectivity which attracts and improves accessibility in intense developments identified growth and development areas within the municipality.

6.2. DEVELOPMENT NODES

Nodes play a major role in the economic, housing and infrastructural developments where they are located. The application of this concepts promotes land use integration, planning and redirection of uncontrolled developments, the encouragement of feasible public transport and the provision of road networks to enhance spatial integration.

Harry Gwala DM comprise of Primary Nodes which have an intense developments of administrative and economic centres; secondary node which are commercial nodes which consist of distribution points; while tertiary nodes comprise of the delivery of supplementary services which are accessible to the local communities in an acceptable walking distance. This municipality also comprise of rural service nodes which represents the lowest order of locality, as well as tourism and recreational nodes which have the potential to strengthen tourism attraction within each specific municipality. The main factors that contributed to the identification of these nodes include:

- Density and distribution of population to be served;
- Level of existing economic activity;
- Proximity of transport routes and modes of transport;
- Topography of locality;
- Land Tenure arrangements; and
- Levels of service infrastructure.

In this regard, the proposed nodes within the Harry Gwala District Municipalities are outlined in Table 29 below.

Table 29: Nodes

| Nodes | Location and Rationale |
|-------------------------------------|---|
| Primary Node | Urban centres of Kokstad, Umzimkhulu, Ixopo, and Underberg. These areas have a potential high economic development, growth and expansion. |
| Secondary Nodes | Urban Centres of Himeville, Franklin, Creighton, Donnybrook and Highflats which already comprise of good levels of economic development. Bulwer be developed as an administrative centre. |
| Tertiary nodes | Urban areas of Swartberg, Ntsikeni, Riverside, Ibis and Rietvlei. These areas have low levels for economic potential. Their aim is to only serve local communities. |
| Rural Service Centre | In areas which comprise of minimal economic potential such as Lourdes, GowanLea, Centacow, Kilmon, Ncwadi, Stepmore, Ntwasahlobo, Makhoba, Nokweja and Jolivet. |
| Tourism and Recreation Nodes | These nodes are located on private land. In Kokstad on the N2, Ntsikeni Nature Reserve, Nazareth, Ophepheni (P68), Indlovu Clan (Ubuhlebezwe to west R56) Qunu falls |

As outlined in the status quo, Harry Gwala DM experiences backlogs on basic service delivery. In this regard, a detailed *Masterplan* should be undertaken to upgrade or install the required infrastructure. The upgrading and installation of adequate infrastructure can harness the full potential of the municipality and capacity to enhance economic growth and development for all local municipalities within the Harry Gwala DM.

6.3. LOCAL MUNICIPALITIES ALIGNMENT

The types of services and infrastructure per node differs from each local municipality. This section denotes a detailed description of nodes per local municipality within the jurisdiction of Harry Gwala DM.

6.3.1.1. GREATER KOKSTAD LM

Table 30 below is a demonstration of the types of nodes, together with specific locations, services and identified opportunities for the Greater Kokstad Local Municipality.

Table 30: Nodes for Greater Kokstad LM

| Type of nodes | Location | Type of services | Identified Opportunities |
|----------------|----------|--|---|
| Primary | Kokstad | <ul style="list-style-type: none"> • Municipal offices; • Hospital; • Schools; • Police station; • Magistrates court; | <ul style="list-style-type: none"> • Roads upgrades and interchanges; • Municipal sewerage disposal system; • Municipal waste disposal site; |

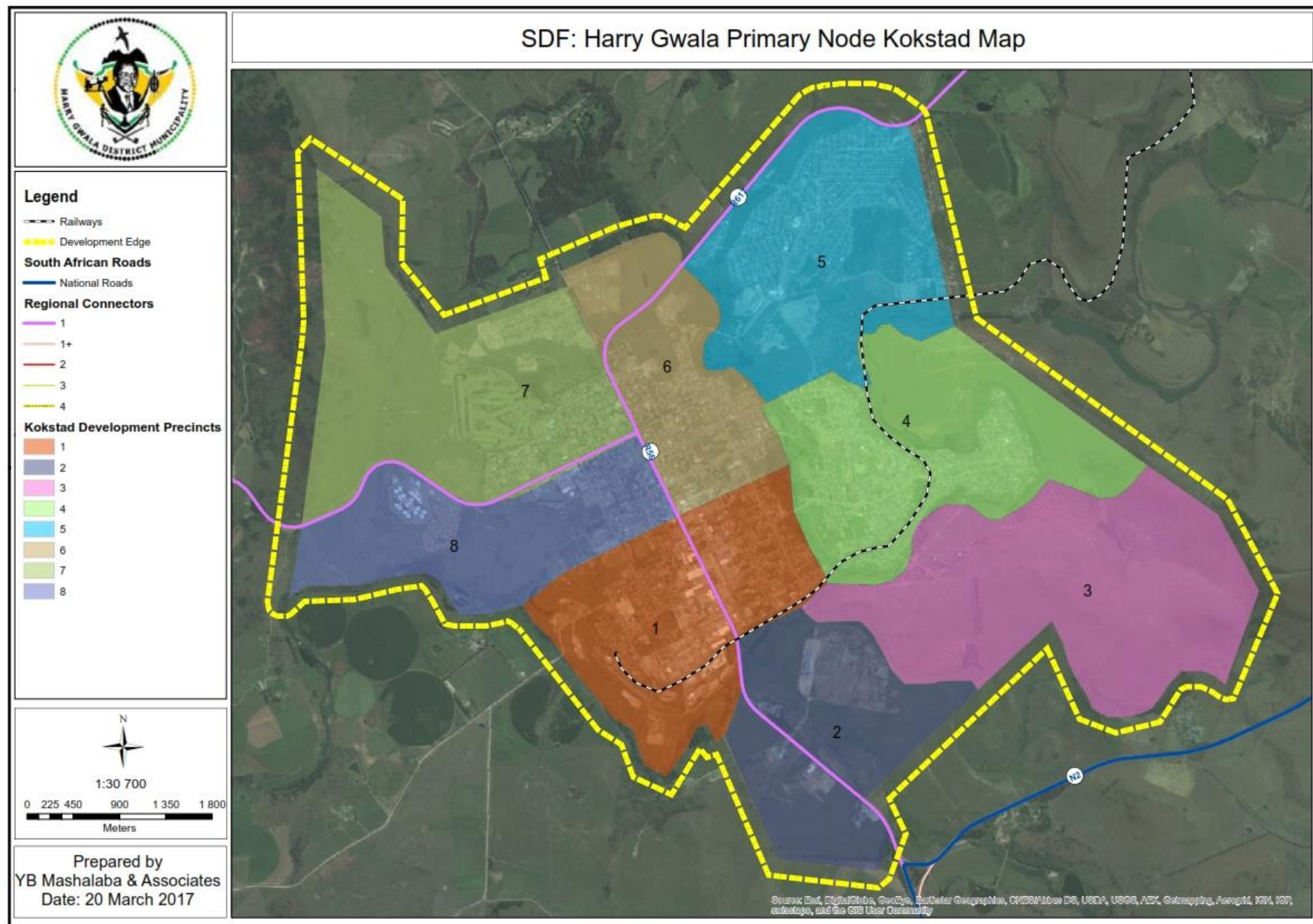
| | | | |
|---------------------|--------------------------|---|--|
| | | <ul style="list-style-type: none"> Commercial and retail outlets; and Housing infrastructure. | <ul style="list-style-type: none"> Housing; Water Provision; and Commercial (SMME)/ Industrial Development to alleviate poverty. |
| Secondary | Franklin, and Makhoba | <ul style="list-style-type: none"> Points for mobile services; Clinic; Sports facilities; Post box points; Transport facilities; Localised services including primary schools; Pension pay out point; and Public phones, local markets and minor commercial activities. | <ul style="list-style-type: none"> To strengthen this node, an Urban Regeneration Plan Strategy needs to be carried out; and Promote Franklin as accessible economic service centre. |
| Tertiary | Swartberg | <ul style="list-style-type: none"> Low level retail services, Police stations, Education (primary and secondary), Clinics, pension Pay-out points, Community halls and; Taxi ranks. | Enhance economic potential through providing services to the local communities and ensure the implementation of town planning development control to stimulate growth and development. |
| Rural Centre | New Amalfi and Kingscote | <ul style="list-style-type: none"> Clinic / Mobile service; Post Boxes; Shops; Secondary and Primary School; and | A Rural Development Plan should be carried out to capitalize on the development of rural economy and infrastructure |

| | | | |
|---------------------------------------|------------------------------|--|---|
| | | <ul style="list-style-type: none"> Weekly / Mobile Service. | |
| Tourism and Recreational Nodes | Nazareth and Ophepheni (P68) | <ul style="list-style-type: none"> Small facilities in economic core Secondary and Primary schools Mobile clinic Information centres Post boxes | <ul style="list-style-type: none"> Preserve unique agricultural land; Mobilize support mechanisms to conserve natural resources; and Enhance eco-tourism within the municipality |

Table 31 below is an illustration of precinct plan for Greater Kokstad (Kokstad area).

Table 31: Proposed Spatial forms for Kokstad

| Precinct Area | Proposed spatial form |
|----------------|--|
| Kokstad | <p>Focus is mainly vested upon residential expansion, infill and densification, agricultural activities as well as training facility in order to harness the potential of the youth. This initiative can be factored to strengthen innovation for businesses within the municipality. Depicted on the map is a strategic areas of intervention.</p> <ul style="list-style-type: none"> Middle income housing (pimenta) Strengthening economic structure (offices and commercial uses); Training facility(ICT) Strengthening of medium density development; Opportunity for s regional sport facility. |



Map 21: Kokstad

6.3.1.2. UMZIMKHULU LM

Table 32 below denotes the types of nodes, together with specific locations, services and identified opportunities for the Umzimkhulu Local Municipality.

Table 32: Nodes for Umzimkhulu LM

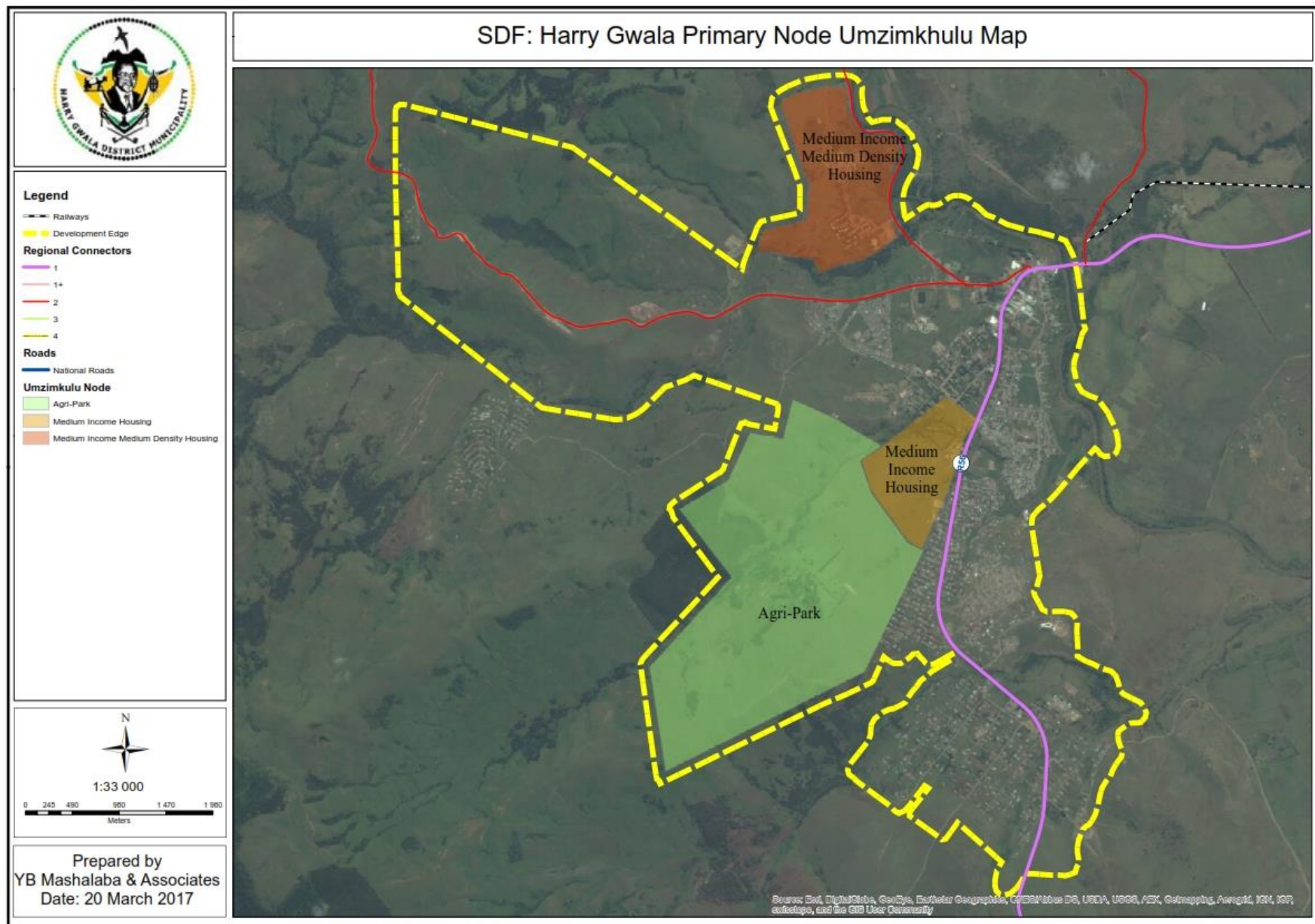
| Type of nodes | Location | Type of services | Identified Opportunities |
|------------------|---------------------------|---|---|
| Primary | Umzimkhulu and Clydesdale | <ul style="list-style-type: none"> • Municipal offices; • Hospital; • Schools; • Police station; • Magistrates court; • Commercial and retail outlets; and • Housing infrastructure. | <ul style="list-style-type: none"> • Create additional opportunities within the CBD to attract additional economic demand coming from the intensive traffic volume on the R56; • Improve existing commercial developments through the establishment of <i>CBD Revitalization Plan</i>; • Facilitate integration through the promotion of mixed land use developments; • Provide a clear demarcation of pedestrian movement, public transportation stops, informal traders spaces and public spaces; • Ensure an integrated spaces through the creation of sustainable work, live and play spaces; and • Engage in negotiations with land owners regarding development on privately owned sites. |
| Secondary | Rietvlei and Riverside | <ul style="list-style-type: none"> • Points for mobile services; • Clinic; • Sports facilities; | <ul style="list-style-type: none"> • Establish a clear demarcation for urban edge and discourage developments outside the demarcated area; |

| | | | |
|--|--|---|--|
| | | <ul style="list-style-type: none"> • Post box points; • Transport facilities; • Localised services including primary schools; • Pension pay out point; and • Public phones, local markets and minor commercial activities. | <ul style="list-style-type: none"> • Establish public transportation facilities to allow adequate access to primary and secondary nodes; • Demarcate a floodline for all water sources (1:100 years); • Enhance the provision of minimum level services; • Upgrading of informal settlements and the provision of low-cost housing; • Creation of safer traffic roads and public transport facilities; and • Establishing a management system for livestock and grazing camps. |
| Tertiary | Ibisi Glengarry, Ntsikeni and Ncambele | <ul style="list-style-type: none"> • Clinic; • Schools; and • Skills / multipurpose centre (social services). | <ul style="list-style-type: none"> • Ensuring that environmental Impact Assessments are conducted before any proposed developments can take place; • Upgrading of informal settlements and the provision of low-cost housing; • Creating a management system for livestock and grazing camps |
| Rural Centres | None | N/A | N/A |
| Tourism and Recreational Centre | Ntsikeni Nature Reserve, | <ul style="list-style-type: none"> • Small facilities in economic core • Accommodation | Enhance eco-tourism within the municipality through stimulating growth in the tourism |

Table 33 below depicts the Umzimkhulu Lm precinct areas (Umzimkhulu, Rietvlei and Ibisi).

Table 33: Proposed Spatial forms for Umzimkhulu, Rietvlei and Ibisi

| Precinct Area | Proposed spatial form |
|--------------------|---|
| Umzimkhulu | <p>Medium Income Housing Units have been proposed central to Umzimkhulu town to create a more intense and regenerated urbanized spatial form which protects and strengthens the overall economy and hinterlands of the entire municipal area.</p> <p>Agri-Park is proposed on the south-western side of Umzimkhulu town for the purpose of integrating Land through there (reformation of tenure system, restitution and land based resources), Livestock through (the provision of economic infrastructure such as abattoirs, small industries stock water and other animal handling facilities), farming through (The provision of credit facilities to support emerging farmers and fresh produce markets) and the community through the provision of amenities and ICT services.</p> <p>Medium income/medium density housing is proposed on the northern side of Umzimkhulu town to enhance the provision of affordable human settlements in the vicinity of economic activities.</p> <p>Rental Stock Mechanism can be used as an instrument to utilize efficiently in a manner which can also provide housing for low income earners in Umzimkhulu. This can be conducted through the development of high density social housing units, which can accommodate and strategically locate low income earners in the vicinity of economic and social facilities.</p> |
| Rietvlei and Ibisi | <p>Due to the low levels of socio-economic upliftment, development should be aligned to the levels of income and affordability of people residing within these areas. Focus here is thus entrenched upon the provision of services to the local community and provisions are also made for those passing through these towns.</p> <p>Low levels of retail services (Small Supermarkets, filling station) are proposed in an accessible location along the R56. Proper implementation of this development can enhance the utilization of the unused taxi rank along the R56.</p> <p>In addition to this, a Small Town Regeneration Plan should be developed in order to properly utilize the ecological and cultural factors of the town to reinforce aesthetic appeals in order to attract public and tourism investment in these areas.</p> |



Map 22: Umzimkhulu

6.3.1.3. UBUHLEBEZWE LM

Table 34 below illustrates the types of nodes, together with specific locations, services and identified opportunities for the Greater Kokstad Local Municipality.

Table 34: Nodes for Ubuhlebezwe LM

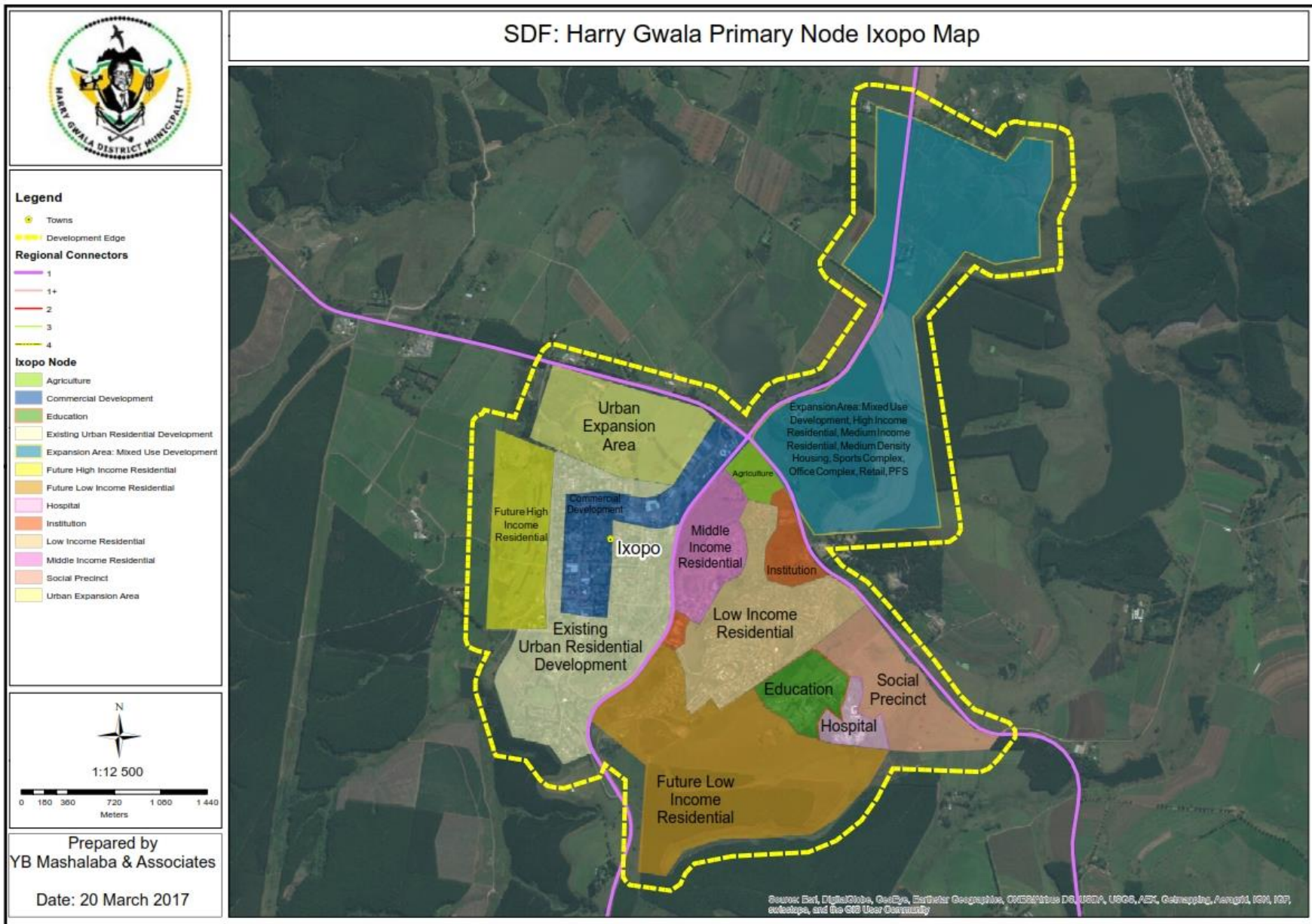
| Type of nodes | Location | Type of services | Identified Opportunities |
|------------------|-----------|---|--|
| Primary | Ixopo | <ul style="list-style-type: none"> • Municipal services • Fire Services • Education • South African Police (SAPS) • Department of Justice • Library services • Health • Cemetery Sites • Postal Services • Dissects | <ul style="list-style-type: none"> • The area can easily accommodate future industries, commercial and any high intensity economic activity. |
| Secondary | Highflats | <ul style="list-style-type: none"> • Police station • Post box point, • Primary school and High School, • The department of education circuit office • Community Halls • Multipurpose centre • Tribal Court • Shops | <ul style="list-style-type: none"> • Accommodate considerable formal and informal businesses. • Mobilize support to create access to public transport facilities in rural settlements. |
| Tertiary | None | N/A | N/A |

| | | | |
|-------------------------------|---------------------|---|--|
| Rural Centres | Nokweja and Jolivet | <ul style="list-style-type: none"> • Routine Police Patrol, • Mobile Clinic; • Primary and Secondary Schools, • Post box Point, • Shops, • Mobile Welfare Services, • Regular Bus Services, • Meeting Place | <ul style="list-style-type: none"> • Establish a rural restructuring programme to strengthen the economy and accessibility through infrastructural development within identified rural centers. |
| Tourism and Recreation | None | N/A | N/A |

Table 35 below illustrates the proposed spatial form for the urban centre of Ixopo

Table 35: Proposed Spatial forms for Ixopo

| Precinct Area | Proposed spatial form |
|---------------|---|
| Ixopo | <p>Future residential development are proposed on the southern side of Ixopo (low income), high income residential are proposed on the eastern side, while an expansion area is proposed on the north eastern side of Ixopo comprising of the following developments:</p> <ul style="list-style-type: none"> • Mixed Use developments • High Income Residential • Medium Income Residential • Medium Density Housing • Sports Complex • Office Complex and Retail |



Map 23: Ixopo

6.3.1.4. DR NKOSAZANA DLAMINI-ZUMA LM

Within the jurisdiction of Dr Nkosazana Local Municipality, Underberg has been identified as a primary node as this area comprise of a strong commercial, service, and various social amenities. Bulwer, Creighton, Donnybrook and Himville have been identified as secondary nodes as these areas comprise of lower service centre that serves the surrounding areas. These includes services such as clinic, store, tribal court , taxi rank, municipal offices, a school, police station as well as a variety of commercial and retail outlets. Ncwadi, Nkwezela, Hlanganani, Gqumeni and Mqatsheni have been identified as tertiary nodes (refer to Table below). They serve locally dense populated rural areas. Other nodes such as Garden Castle, Sani Pass and Bushman's Nek were identified on private land and are thus accessible by the public on the park entry points. Table 36 outlines the proposed nodes for Dr Nkosazana Dlamini-Zuma Local Municipality.

Table 36: Nodes for Dr Nkosazana Dlamini-Zuma LM

| Type of nodes | Location | Type of services | Identified Opportunities |
|------------------|--|---|---|
| Primary | Underberg | <ul style="list-style-type: none"> • Municipal services • Fire Services • Education • South African Police (SAPS) • Department of Justice • Library services • Health • Cemetery Sites • Postal Services • Dissects | <ul style="list-style-type: none"> • Protection and conservation of environmentally sensitive areas; • Identification of land for future settlements ; • Make provision for the construction of social facilities and enhancement of economic land use zones |
| Secondary | Bulwer Creighton Donnybrook and Himeville | <ul style="list-style-type: none"> • Police station • Post box point, • Primary school and High School, • The department of education circuit office • Community Halls | <p>Promote Creighton as an economic activity Centre.</p> <p>Facilitate Bulwer as an administrative centre.</p> |

| | | | |
|-----------------|--|--|--|
| | | <ul style="list-style-type: none"> • Multipurpose centre • Tribal Court • Shops | |
| Tertiary | Ncwadi, Nkwezela, Hlanganani and Gqumeni Mqatsheni | <ul style="list-style-type: none"> • Clinic; • Schools; and • Skills / multipurpose centre (social services). | Capitalize on efficient use of resources to better planning. |

The proposed spatial form for the Dr Nkosazana Dlamini-Zuma (Underberg and Bulwer) precinct areas is depicted in Table 37 below:

Table 37: Proposed Spatial forms for the Underberg and Bulwer

| Precinct Area | Proposed spatial form |
|------------------|--|
| Underberg | <p>Single residential developments are proposed towards the peripheral of the Underberg town, particularly on the north, south and western side of the town.</p> <ul style="list-style-type: none"> • Retail and commercial developments are proposed more central to the Underberg town. • While the service industrial developments are proposed on the northern side of the town. |
| Bulwer | <p>Attraction of services that communicate to the town as an administrator:</p> <ul style="list-style-type: none"> • Offices; • Medium density; • Associated Personnel to unlock development (identification of land and analysis of municipal needs .i.e tourism (harness the lower Drakensburg), economy,); • Services: medical, banking, retail, hardware, lodging. • Bulwer-Stephen Dlamini dam, an opportunity for high income residential/luxury homes & dam activities (boat cruises linked to the scenario). |

SDF: Harry Gwala Primary Node Underberg Map

Legend

 Railways

Development Edge

Regional Connectors

— 1

— 1+

— 2

3

4

Underberg Node

Government/Social

 Green Housing

Higher Density Residential

Logistics Transfer

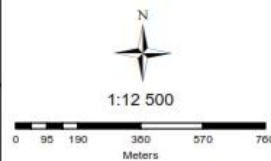
Retail/Commercial

Service Industrial

Single Residential

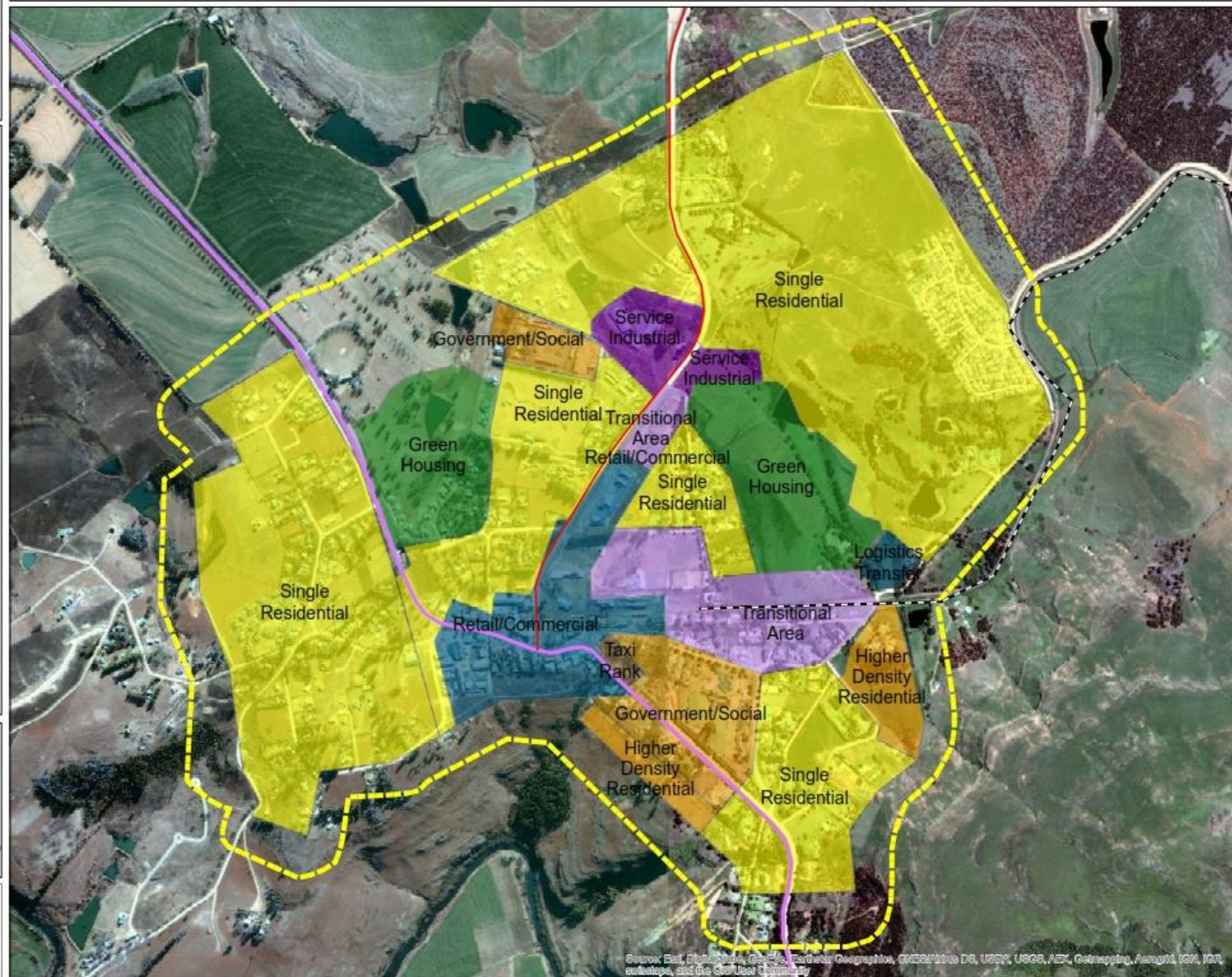
 Taxi Rank

Transitional Area



Prepared by
YB Mashalaba & Associates

Date: 20 March 2017



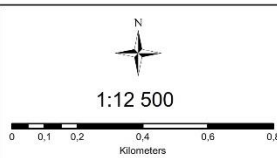
Map 24: Underberg



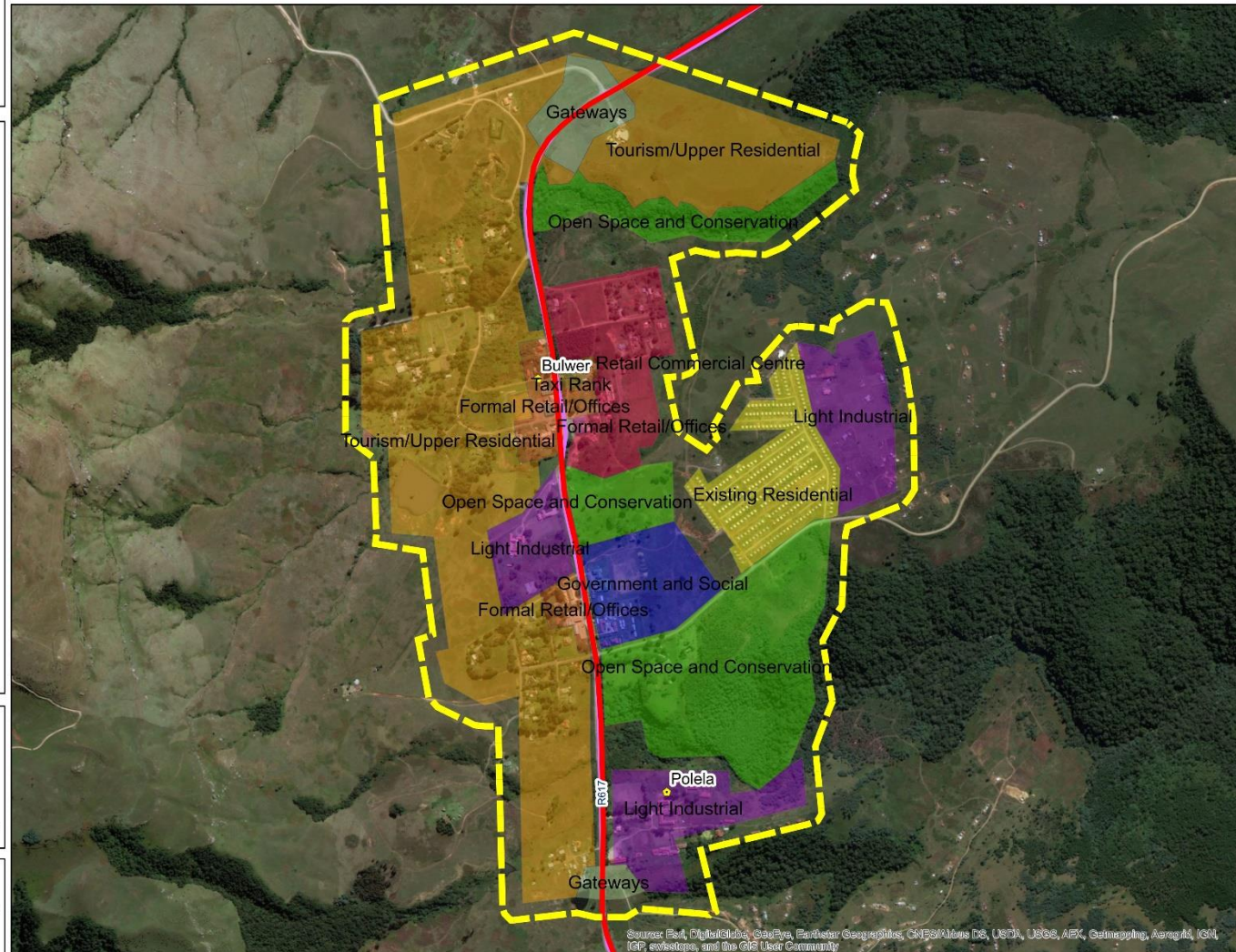
SDF: Harry Gwala Primary Node Bulwer Map

Legend

- Towns
- Development Edge
- Road Classification**
 - Regional
- Regional Connectors**
 - 1
 - 1+
 - 2
 - 3
 - 4
- Bulwer Node**
 - Existing Residential
 - Formal Retail/Offices
 - Gateways
 - Government and Social
 - Light Industrial
 - Open Space and Conservation
 - Retail Commercial Centre
 - Taxi Rank
 - Tourism/Upper Residential



Prepared by
YB Mashalaba & Associates
Date: 18 May 2017



Map 25: Bulwer

Due to the amalgamation of Ingwe local Municipality and Kwa Sani Local Municipality to form Dr Nkosazana Dlamini-Zuma Local Municipality, the local area is now comprised of two primary nodes. Although Underberg has a larger sphere of influence, it is located in close proximity to environmental sensitive areas which needs to be conserved and protected. As such, further expansion and development should be discouraged. The direction of development should rather be directed to Bulwer as it is located relatively central within the Dr Nkosazana Dlamini-Zuma Local Municipality. This makes Bulwer accessible and reaches a larger community base for opportunities and social amenities. The types of infrastructure and services in this area are outlined in Table 38 below.

Table 38: Infrastructure in Primary Nodes

| Infrastructure/ Services | Type and description |
|-----------------------------|---|
| Roads | R56 and R612 which are the main axis in the municipality and moves from the Eastern Cape Province to Msunduzi and from Port Shepstone to Ixopo |
| Water Supply | There is availability of piped water in the vicinity of the CBD and adjoining areas |
| Sewerage System | Waterborne sewer and septic tank system are mainly used in this area. Residents from the outskirt of the CBD generally use Ventilated Improved Pit toilets. |

The following infrastructure or services for Primary nodes are outlined in Table 39 below.

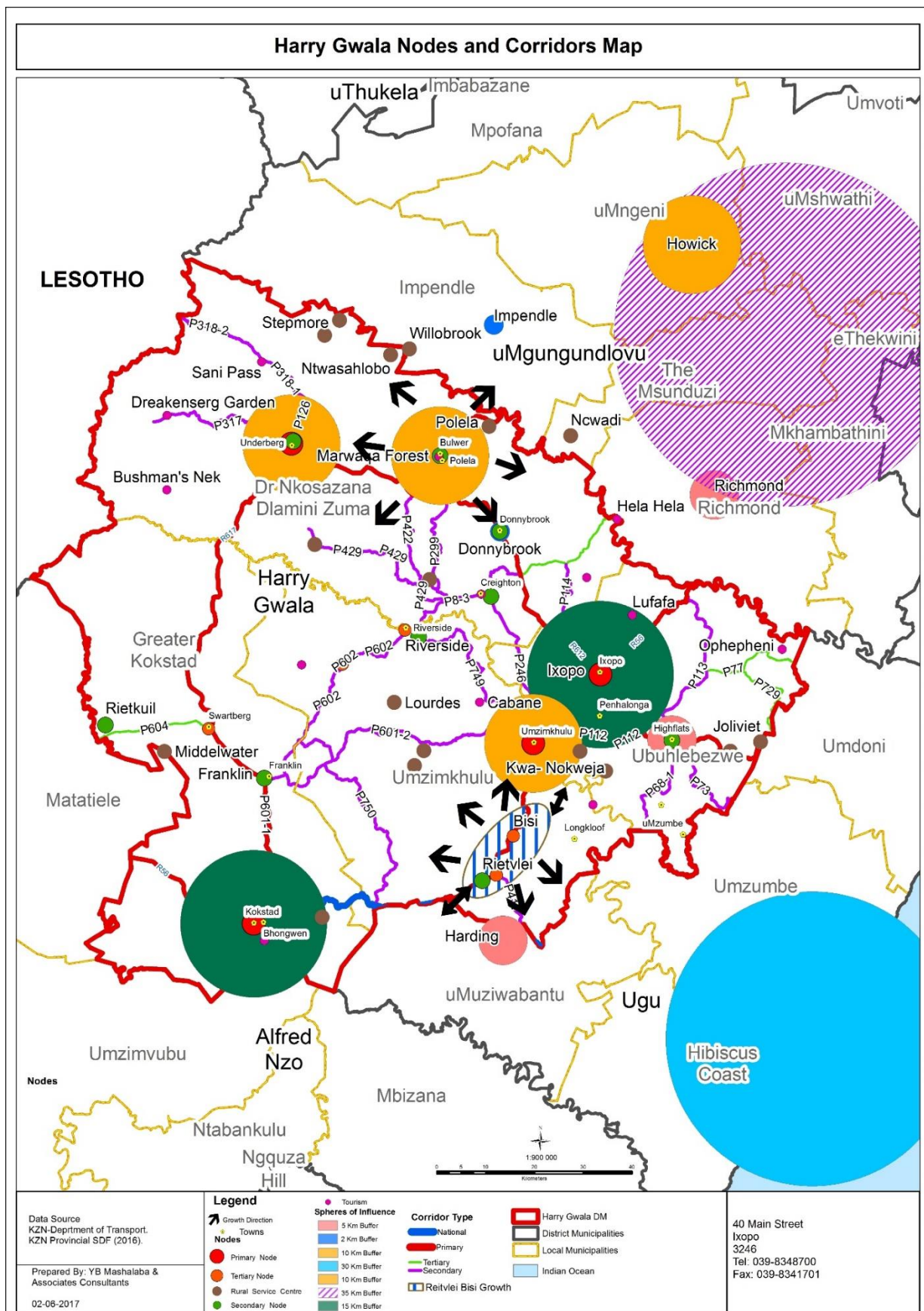
Table 39: Infrastructure in Secondary Nodes

| Infrastructure/ Services | Type and description |
|-----------------------------|--|
| Water Supply | Water here is reticulated in stand pipes |
| Electricity Supply | There is adequate provision of electricity supply |
| Sanitation | Septic tanks and VIP's are mainly used as sanitation facilities in this area |
| Roads | Most of these roads are tarred, some gravelled and others still needs to be upgraded |

These nodes comprise of numerous rural settlements and service centres. This node only accommodates various land uses which can enhance sustainability in the above mentioned adjoining areas. The infrastructure in the tertiary nodes is outlined in the Table 40 below.

Table 40: Infrastructure in Tertiary Nodes

| Area | Infrastructure/ Services | Type and description |
|----------------|-----------------------------|---|
| Jolivet | Water Supply | There is availability of piped water mainly for businesses, while other residents access water through communal standpipe |
| | Electricity | There is adequate electrical supply in the area |
| | Sewerage System | Businesses mainly use septic tanks, while residents use VIP and traditional pit toilets |
| | Roads | Road R612 is fully tarred while other connectivity roads are gravel |
| Nokweja | Roads | P112 connects the area to both R56 and R612. D309 connects the north section of this area with P112 D310 connects the balance of southern areas with P112 All roads in this area are gravel roads. |
| | Water | Usage of boreholes , water tanks and springs although some part of the settlement have access to piped water supply |
| | Electricity | Electricity is available for most sections of the area. |



Map 26: Nodes and Corridors

6.4. CONCEPTUAL SPATIAL PLANNING AND STRUCTURE PLANNING

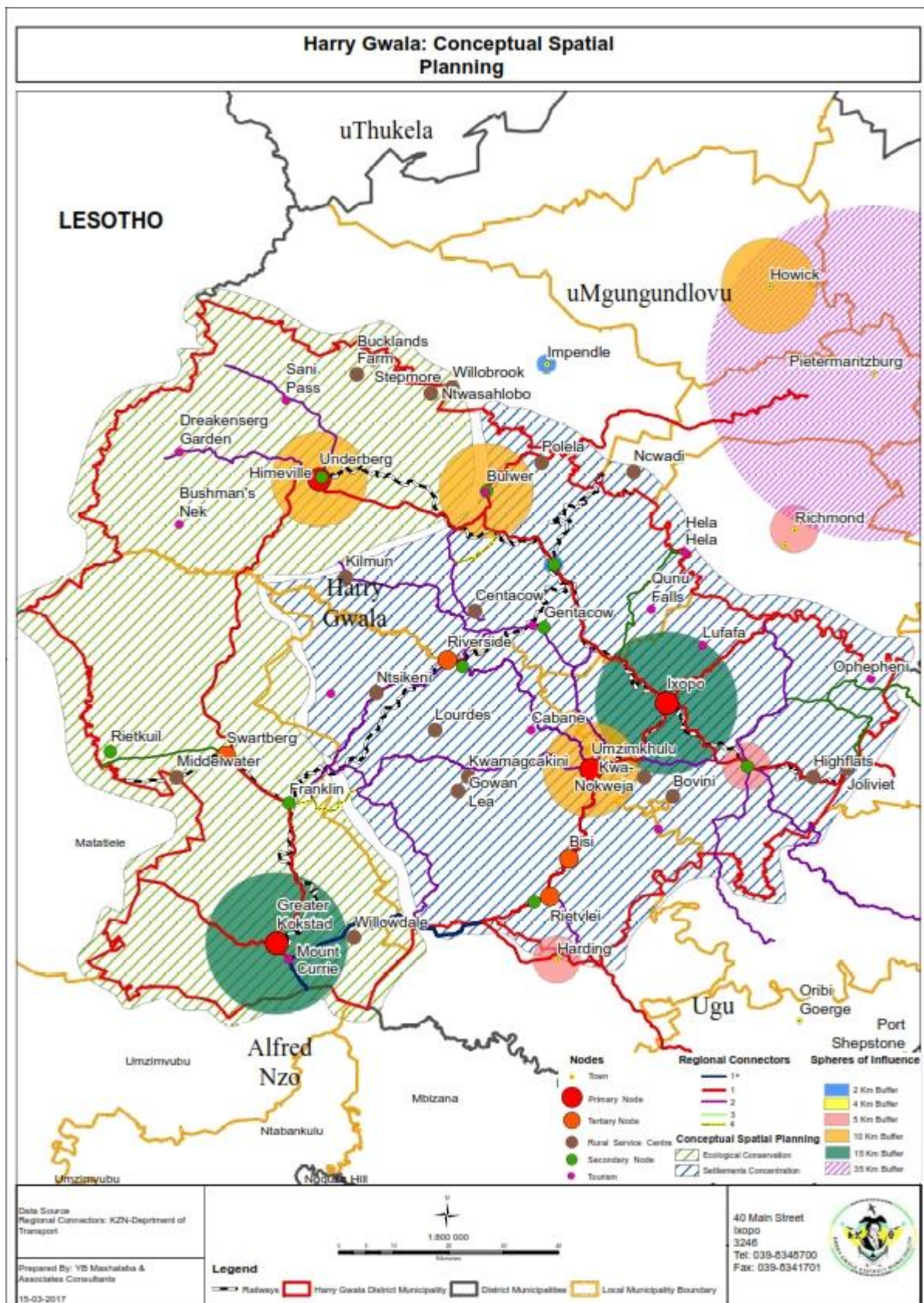
The development of the conceptual spatial planning and structure planning sector plan is based on the following elements: location and accessibility; population concentrations; availability of services; economic opportunities; geological considerations; consideration for areas of conservation; as well as consideration of areas that are of historical importance. For a detailed illustration (refer to Map 27).

6.4.1. Accessibility

Harry Gwala District is characterised by four (4) main urban centres, namely Kokstad, Umzimkhulu, Ixopo and Underberg/Himeville. These urban centres have potential for high levels of economic development, growth and expansion. The purpose of these centres is to serve the sub-regional economy of the district. They are prime location for high order office and small retail development comprised of goods, services as well as speciality products. For these urban centres to function to their fullest potential a strong link needs to be established between them and surrounding areas. The major routes that act as linkages within the district are a primary road (N2) and secondary roads (R56 and R617).

6.4.2. Settlement concentrations

The densities of the population are high in urban settlements, traditional authorities, as well as corridors and activity spines; while relatively low in rural settlements. The low densities in rural areas are accompanied by dispersed and fragmented settlement patterns, making the provision of services extremely difficult and costly. The prevalent settlement patterns also make the provision of social amenities difficult. This is further worsened by uneven distribution (location) and poor to non-existent accessibility.



Map 27: Conceptual Plan

6.5. ENHANCE ECONOMIC OPPORTUNITIES

The economy of the district is largely driven by the agricultural sector and community services, with minimum contribution from other sectors. The agricultural sector constitutes for the employment of large number of low/unskilled workers, while the community services constitutes largely on the employment of skilled and semi-skilled people within the district. The district has a high tourism potential due to its wealth in natural attractions and historical monuments.

Apart from the agricultural sector, the economic landscape of Harry Gwala DM can be enhance through the promotion of the tourism , the penetration of commercial and industrial markets, trade and industry as well as the construction sector. The establishment of other sectors can strategically influence the demand for the construction of integrated housing units, which can therefore increase the employment rate of the municipality, economic growth and development and the ultimate improvement in the livelihoods of local communities within the jurisdiction of the DM and adjacent municipalities.

The viability of the railway system needs to be assessed in order to visualize if the railway can be used as an alternative transportation mode for goods between Kokstad which runs towards Underberg for the purpose of enhancing trade relations with Sani Pass border to Lesotho; as well as in neighbouring areas from Matatiele towards Richmond. The ultimate goal will therefore be to reduce traffic and the amounts of heavy vehicles transporting goods within and across the borders of the municipality. This can enhance economic development, while at the same time reducing costs for road maintenance.

7. Transport Planning

Transportation and Road networks improves efficiency, accessibility and minimise distance between various land uses. Although the municipalities within the Harry Gwala District encompass of a well-developed road network from a national level to the local level, the road infrastructure is a challenge within the jurisdiction of these municipalities. It is important to note that the development of the district depends on accessibility of transportation infrastructure which leads to major land developments. The success of such land uses depends on the provision of adequate infrastructure.

7.1. ROADS CLASSIFICATION

The transportation and movement networks in Harry Gwala are made up of primary roads as well as secondary roads. These roads contribute significantly to the economic development

of the municipality and are thus outlined hereunder as per each municipality which falls under the Harry Gwala District Municipality (refer to Table 41).

Table 41: Roads Classification

| Type of Road | Road | Description |
|------------------------|------|---|
| Primary Road | N2 | Links Kokstad with economic hub such as Port Shepstone, Durban and Umtata |
| Secondary Roads | R56 | Links Kokstad with Matatiele and Cedarville |
| | R617 | Links Kokstad with Underberg and Pietermaritzburg |

Adequate transportation is needed to ensure that the spatial form and location of nodes and corridors are easily accessible, especially so on the Eastern Cape Corridor which runs through Pietermaritzburg.

7.2. CROSS BORDER ALIGNMENT

Within the peripheral of Dr Nkosazana Dlamini-Zuma Local Municipality, cross border linkage encompasses local and international linkage. On the north, P27-2 links the Dr Nkosazana Dlamini-Zuma Local Municipality to Impendle Municipality while on the south western side, P318-2 provides a link to Lesotho. Ukhahlamba Drakensburg Park lies along Lesotho border where the formal border gate of Sani pass is present. Issues concerning cross-border planning in this municipality include the following economic aspects:

- The establishment of connectivity in terms of tourism sector with neighbouring municipalities
- Mobilizing support for the retail sector with commuters from Mokhotlong area, which links up with Lesotho through trade
- Enhancing support for cross border trade through supporting Mokhotlong Mohair/wool trade
- Strengthening cross border tourism development (Trans-Maloti integration)

Within the Jurisdiction of the Greater Kokstad Local Municipality, R617, N2 and R56 play a fundamental role in terms of providing a linkage between this municipality and other neighbouring municipalities. These roads have been identified as primary corridors within this municipality and thus facilitate strong cross border economic opportunities within the municipal area. Ubuhlebezwe identified P612 and the R52 as primary corridors which plays a fundamental role in connecting this municipality with other neighbouring municipalities and economic nodes.

Agricultural activities and businesses have been identified on the R56 route along Richmond down to Ixopo. This route links this municipality with Pietermaritzburg and Kokstad. As a result,

a strong economic development along this corridor should be embodied. The R56 and P612 also provide access to Creighton and the South Coast and connect N2 with the Eastern Cape Province. Agro-tourism should therefore be facilitated along these borders in order to increase trade between Ixopo, Creighton, Bulwer, Underberg as well as Umzinto (refer to Map 28).

7.2.1. Harry Gwala DM cross border linkage in relation to other district municipalities.

a) Alignment with Alfred Nzo District Municipality

For the purpose of creating a holistic spatial form, the district is connected to adjacent municipalities within the Eastern Cape Province as outlined previously in this document. The N2 which runs from north-south directly links the Harry Gwala District with Alfred Nzo Municipality which have been identified as a gateway point to link Kwazulu-Natal with the Eastern Cape Province. The R56 also plays a role in integrating the Harry Gwala DM with Alfred Nzo DM, by linking Matatiele with Kokstad. This linkage is influenced mainly by the economic activities occurring in Kokstad, Port Shepstone and Pietermaritzburg as these areas comprise of a variety of commercial services. In this regard, Alfred Nzo DM is strategically located in the peripheral of the economy of both the Kwa-Zulu Natal Province and the Eastern Cape.

The fact that the demarcation of municipal areas affects the cross border issues cannot be ignored. It can be noted that Umzimkhulu Local Municipality was part of the Alfred Nzo DM during the early 2000's. A new demarcation of the municipal boundary was conducted after the 2006 election, within which the Umzimkhulu LM was transferred to the KwaZulu-Natal Province. Boundary demarcation affects the shared municipal facilities. As such, a coordinated spatial planning is essential in relations to creating a viable cross border alignment.

b) Alignment with OR Tambo District Municipality

The N2 has been identified as a primary corridor which also links Harry Gwala DM with OR Tambo DM via Kokstad. From this, it can be noted that this linkage has been mainly influenced by agricultural influences, whereby the OR Tambo DM in 2008 purchased seven farms located in the jurisdiction of Kokstad. The names of these farms are outlined hereunder:

- Woodville 1,
- Woodville 2,
- Shallom,
- Erin,
- The Lease, and
- Fairfield

c) Alignment with Ugu District Municipality

The Ugu DM is linked to Harry Gwala DM through a shared border which connects Vulamehlo LM with Ubuhlebezwe Local Municipality; Umzumbe LM which shares a border with Ubuhlebezwe LM and Umzimkhulu LM; Umziwabantu LM which shares a border with Umzimkhulu LM and Greater Kokstad LM.

With regards to this alignment, the cross border issues are mainly influenced by areas which have been earmarked for agricultural purposes within the jurisdiction of Ubuhlebezwe LM, while on the other hand, such areas have been earmarked for conservation within the jurisdiction of Vulamehlo LM. As the aforementioned local municipalities have a common boundary, it can be noted that agricultural aspects are the main aspect that have the potential to create an overlap which can create opportunities for agricultural investment, more particularly along the adjoining boundary that connects Ubuhlebezwe LM with Umzumbe LM which, within which Umzembe LM is characterised by low-moderate agricultural potential, while Ubuhlebezwe LM is characterised by minor limitations to agriculture.

Umzimkhulu LM ad Umzumbu LM share a common boundary. There are also cross border conflicts within these municipalities. The Umzimkulu LM earmarked certain areas for nature conservation, while the Umzumbe LM earmarked the same areas as agricultural footprints.

d) Alignment with Umgungudlovu DM

Harry Gwala DM shares a common border with the Umgungudlovu DM on the south eastern side of the Harry Gwala DM. This linkage is mainly orchestrated by the Umkomazi River Valley which connects these municipalities. These municipalities are linked by Kwasani LM (now Dr Nkosazana Dlamini-Zuma LM; amalgamation between Ingwe and Kwasani municipalities) and Impendle LM. The cross border alignment within the Harry Gwala DM also comprise of the connection between Richmond LM and Ubuhlebezwe LM.

To enhance the effectiveness of this cross border alignment, improved cross border communication to address any cross border conflicts can be based on the following key interventions: Collaboration of all the adjacent municipalities in relation to improved service delivery in the rural and urban peripheral, more particularly in settlements located in the vicinity of the cross border;

- Capitalize on regional accessibility to tourist destination areas as well as enhancing accessibility to rural settlements;
- Mobilize support and facilitate growth in agricultural development;
- Enhance tourism potential and conserve natural resource through alignment with environmental regulations;

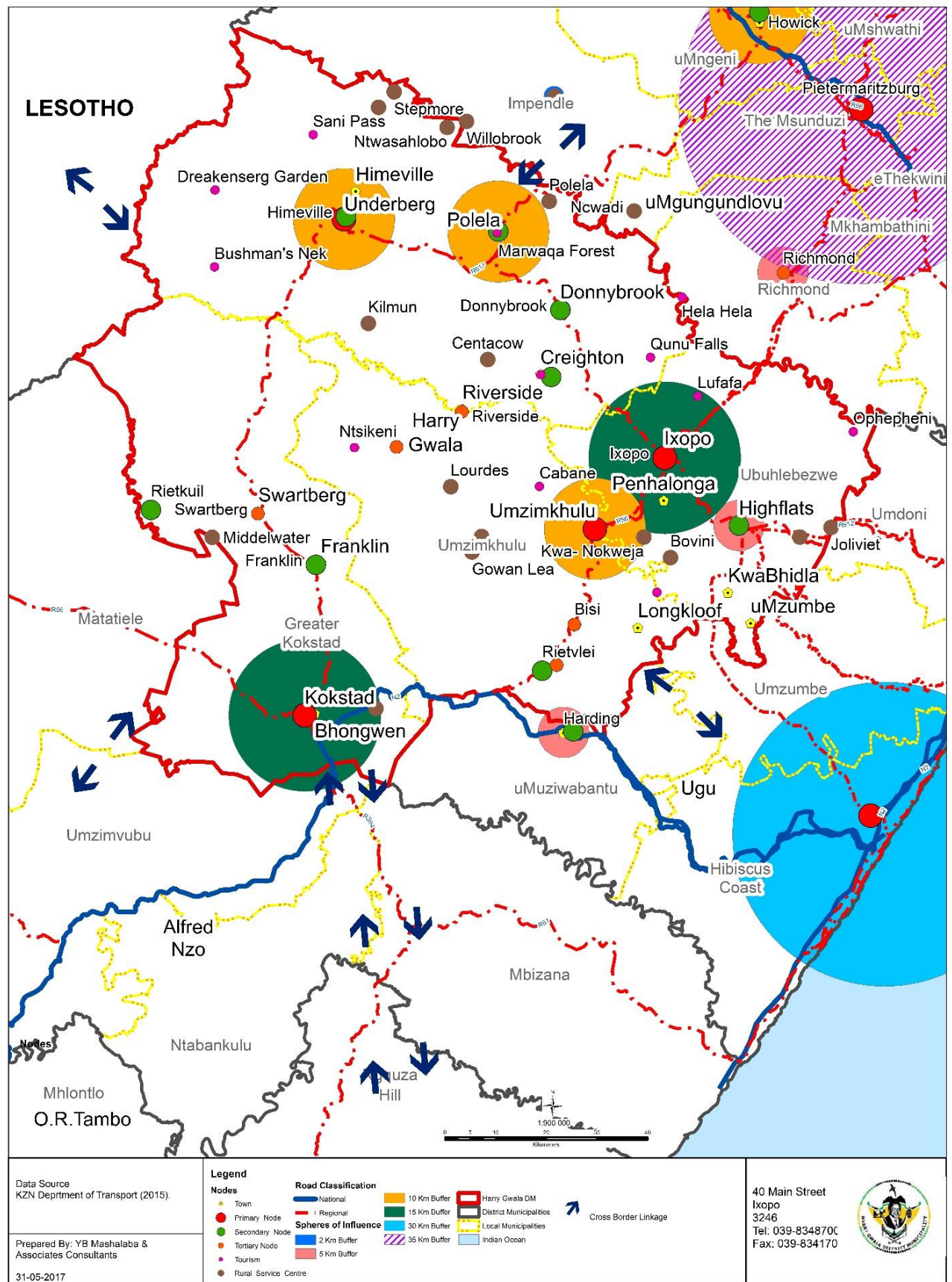
7.2.2. N2 Re-alignment

Within a provincial scale, the N2 Wild Coast toll road was established by SANRAL to provide a linkage between the Kwazulu-Natal and Eastern Province. The main goal of this re-alignment is to intensify growth and development within the jurisdiction of the KwaZulu Natal and the Eastern Cape Province. The N2 re-alignment facilitates spatial integration between Durban- Port Shepstone –Kokstad-Mthatha and East London. The N2 is strategically situated on the urban fridge of Kokstad, this re-alignment can strengthen movement networks, together with enhancing economic activities along the Kokstad node.

It is undeniable that the Harry Gwala District Municipality prides itself with vast agricultural potential. Arguably, to enhance the development and growth of this municipality, it is essential to note that the N2 re-alignment will not only spatially integrate Harry Gwala with adjacent provinces. Rather, the re-alignment can also have an impact on the types of economic activities which occurring along the N2. Within the jurisdiction of the Harry Gwala DM, the area of Kokstad plays a major role in relation to agricultural activities. This alignment can enhance the development of the ecological corridors within this municipality, though escalating measures to improve the economic activities (commercial and industrial development) which can be developed along this roads.

Nonetheless, it must also be noted that the intensification of such a development can have social benefits for both provinces. However, the issues relating to water supply as stipulated in the situational analysis, in Kokstad as a core area needs to be taken into consideration. In addition, this re-alignment, together with the types of economic activities which can occur along this road influences both the built environment and the socio-economic aspects of the DM in relations to the issues of employability and affordability. It is against this backdrop that the development of economic sectors along the N2 re-alignment be strategically located along the development of integrated human settlements, particularly towards the proposed medium-low cost housing units in order to ensure accessibility to economic and social facilities. It must also be noted that infrastructural investment should also be directed in Kokstad to ensure that there is enough water supply, electrification, sanitation and refuse disposal services, as well as road maintenance in order to ensure that the town have the capacity to handle such intensification.

Harry Gwala: Cross Border Planning



7.3. CORRIDOR DEVELOPMENT

The KZN Provincial SDF identified Kokstad-Umzimkhulu-Msundizi and Port-Shepstone-St Faiths-Ixopo as secondary corridors. Although this is the case, it must be noted that from the district scale, these corridors are the main focal points within the Harry Gwala DM. Table 42 below denotes the hierarchy of corridors, together with the description and location.

Table 42: Corridor Development

| Corridors | Description and Rationale | Location |
|----------------------------|--|--|
| National Road | This road has been identified as a priority location which can intensify economic growth within Harry Gwala, particularly in Kokstad. The N2 further provides a linkage between the DM via Kokstad with the Eastern Cape Province. | Port Shepstone-Kokstad-Mthatha (N2:National Road) |
| Primary Corridor | This corridor is mainly influenced by agricultural activities, commercial agriculture, vegetation businesses and fruit activities. It has a strong cross border economic influence through tourism. This corridors also leads to the Ukhahlamba Drakensburg Park. Developments should not be encouraged along the R617, however 20m buffers should be established for the promotion of outdoor advertisement in relation to agricultural activities occurring along this road. | Richmond -Ixopo-Kokstad – Cedarville-Matatiele (R56) |
| | | Bulwer-Creighton-Ixopo-Highflats(R612) |
| | | Kokstad – Underberg-Hiemville- Bulwer-Umsunduzi (R617) |
| Secondary Corridors | This corridor is characterised by a large forestry which provides opportunities for Agro-Tourism. | Franklin Lourdes- Umzimkhulu- (P601-1, P601-2) |
| | | Franklin – Ntsikeni-Riverside- Creighton (P602, P8-3) |
| | | Highflats-Stepmore- Bucksland farm(P73, P113, P68-1) |
| | | Highflats-Umzimkhulu(P112) |
| | | Umzumkhulu-Riverside (P749) |
| | | Underbewrg-Drakensbug Garden(P317) |
| | | Hiemville-Sani Pass(P126) |
| | | Umzimkhulu-Creighton-Highflats(P122) |
| | | Riverside-Bulwer(P422,P299) |
| Tertiary Corridors | This corridors provides linkage between settlements and serves as strategic connector roads which are developed to create access to services | Franklin-Ntseikeni-Riverside-Umzumkhului(P750,P602,P749) |
| | | Swartberg- Matatiele(R604) |
| | | Jolivet-Ophepheni(P729,P77) |

| | | |
|--|--|------------------------------|
| | | Ixopo-Hela Hela(P114,P8-2) |
| | | Umzimkhulu- Ntsikeni (P74-9) |
| | | |

As illustrated in the above table, the N2 has been identified as a national priority route which can enhance growth within the Kokstad area. This intensification can create efficiency in relation to the provision of flexible trade and tourism. Routine maintenance is recommended in order to create a long economic viability along this road. Primary corridors have been developed in a manner which reiterates to nodal development. As a result, the intensification which occurs along the identified corridors creates access and efficiency in areas identified as potential growth points within the municipality (Primary, Secondary and Tertiary corridors). As a result, the viability of this corridor can be monitored through land use scheme which shall inform the types of developments which should be orchestrated to specifically cater for each node within the municipality.

[illegible]

Map 29: Corridor Development

7.3.1. Proposed Road Network

There is a need to enhance spatial integration through linking strategic growth points of the municipality to strengthen the economy, infrastructure and accessibility. This road linkage can enhance the economic potential of the municipality through flexible movement of goods and people. Notwithstanding accessibility to public transport opportunities for people residing in rural settlements. A road network is proposed at the central strategic development point of Harry Gwala DM to create accessibility to urban and rural settlements. This linkage is established along Riverside and is linked with Lourdes, which moves towards Rietvlei and Ibisi on the south eastern side of Riverside. Rietvlei also connects Ntsikeni and moves parallel towards a new proposed rural road that cuts across R617 on the southern side of Rietkuil and Swartberg. Riverside is also connected to Creighton on the northern side along P8-3. A new rural road is proposed to create access from Ixopo to rural settlements along the P77 on the northern side of Highflats. This road network reiterates with the existing roads, together with identified nodes (Umzimkhulu, Kokstad, and Creighton). It should however be noted that the proposed road network are proposed in private land. As a result, the municipality needs to channel communication with land owners in order to ensure the implementation of this road network to stimulate development in the identified growth points.

Table 43 below depicts the identified growth points for the Harry Gwala District Municipality based on the proposed road network. As illustrated, the main growth points within this municipality are demarcated on the secondary nodes. As such, the proposed road network can enhance the development of the types of economic activities occurring along P604 which links the Harry Gwala DM with Matatiele via Swartberg growth point and moves towards the Ntsekeni and Riverside via the P602 which is also joined by the road from Franklin growth point, which moves towards Creighton growth point along P8-3. Another growth point has been identified along Ixopo rural areas on the P77.

Table 43: Identified Growth Points

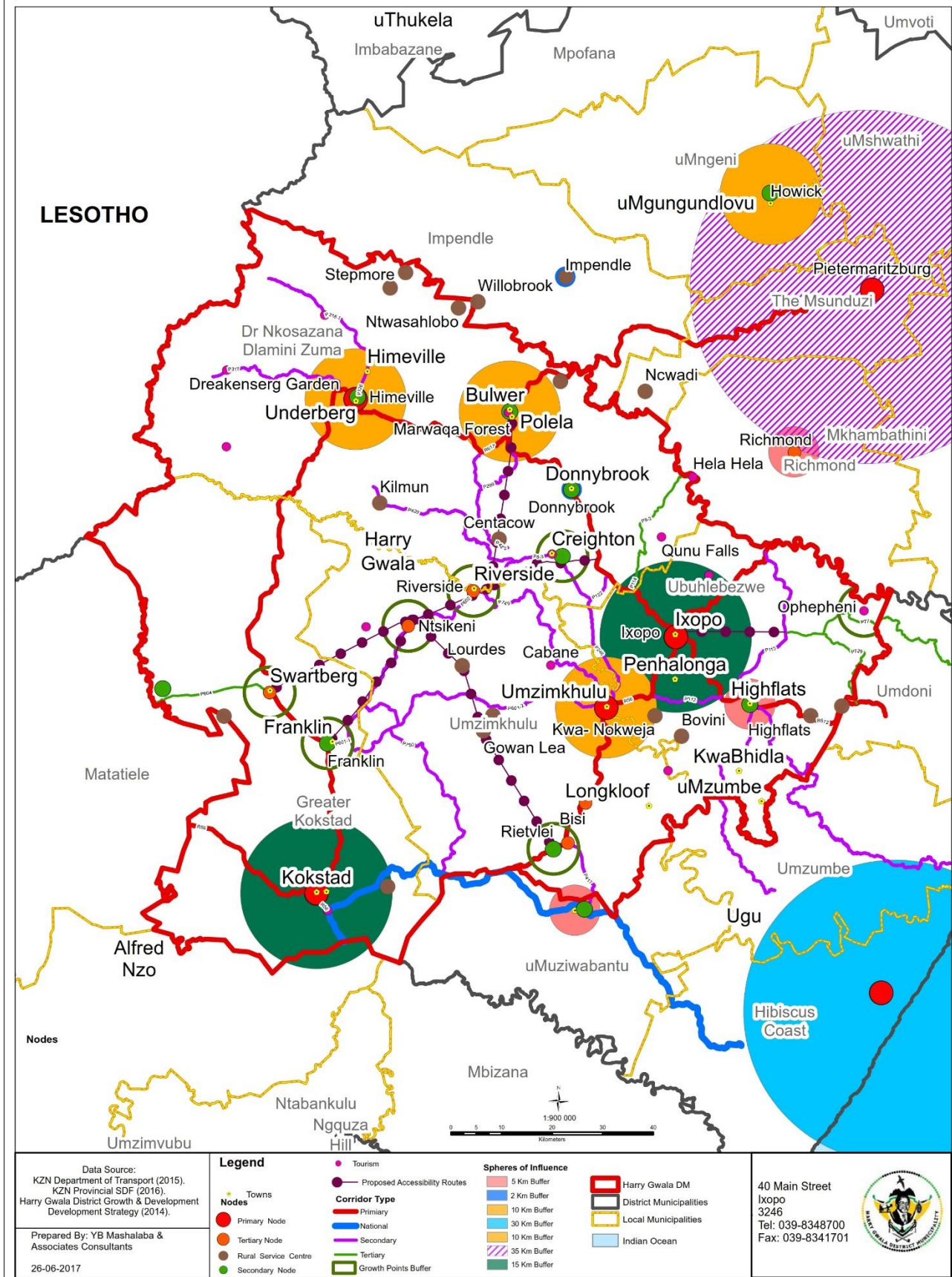
| Types of Nodes | Growth Point | Economic Potential |
|-----------------------|--------------|---|
| Secondary Node | Creighton | <ul style="list-style-type: none"> • Points for mobile services; • Clinic; • Sports facilities; • Post box points; • Transport facilities; • Localised services including primary schools; • Pension pay out point; and • Public phones, local markets and minor commercial activities. |
| | Franklin | |
| | Rietvlei | |
| | Riverside | |
| Tertiary Node | Swartberg | <ul style="list-style-type: none"> • Small facilities in economic core • Secondary and Primary schools |
| | Ntsikeni | |

| | | |
|---------------------|-----------|---|
| | | <ul style="list-style-type: none"> • Mobile clinic • Information centres • Post boxes |
| Tourism Node | Ophepheni | <ul style="list-style-type: none"> • Preserve unique agricultural land; • Mobilize support mechanisms to conserve natural resources; and • Enhance eco-tourism within the municipality |

SDF: Harry Gwala Proposed Accessibility Roads Upgrade Map



Harry Gwala: Nodes-Corridors and Growth Points Map



Map 31: Nodes, Corridors and Identified Growth Points

7.4. PRIORITAZATION OF ROADS

A total road network of 1200km long was established in Umzimkhulu local municipality upon the injection of funds by the Department of Transport to slowly improve road conditions within the municipality. However, the local rural access roads are still poorly maintained. The Umzimkhulu IDP (2012-2017) indicated that approximately 45% of access roads have become unstable and can thus only be accessed through light vehicles. The Ubuhlebezwe SDF 2012/2017 indicated that most of the roads within the town of Ixopo are satisfactory, however routine maintenance for local access routes is still required. The access roads to rural settlements are in poor conditions, thus needed to be repaired. Most of the roads within the Greater Kokstad local Municipality and Dr Nkosazana Dlamini-Zuma Local Municipality are gravel. As a result, lack of proper tarred roads infrastructure hinders many development initiatives within the Harry Gwala District Municipality. This shows that prioritization in terms of project implementation should be vested on the maintenance of roads. Table 44 below denotes the levels of road prioritization which needs to be embodied by the municipality, more specifically on the main identified corridors.

Table 44: Harry Gwala Roads prioritization

| Type of Corridor | Roads | Household number | Distance(Buffer) | Road condition | Level of priority |
|------------------------------|-------|------------------|------------------|----------------|---------------------------------------|
| Agri-Tourism Corridor | R56 | 30 077 | 2km buffer | Fair | Priority 1: Requires Urgent attention |
| | R612 | 10 886 | 4km buffer | Good | Priority 3: Requires routine upgrade |
| Agricultural Corridor | R617 | 17 014 | 1km buffer | Poor | Priority 1: Requires Urgent attention |
| Movement Corridor | N2 | 18 216 | 4km buffer | Fair to good | Priority 2: Requires attention |

As indicated in the above table, although the R56 is in a fair condition, this road as a primary corridor requires urgent attention to ensure that it handles the traffic volumes which will be escalated by the proposed developments within the flagship of Kokstad, Ibisi, Rietvlei, Umzimkhulu, Ixopo and towards Richmond. This prioritization is also embedded taking into account household numbers within the vicinity of the R56. As it shows, this road comprise of a large portion of households as compared to other roads. As a result, priority should be placed on it to ensure that the road can handle such intensification (economic, agri-tourism and movement of goods and people to and from the above mentioned towns). The R612 has been identified as a primary corridor which focuses on Agri-tourism. Although the status of this road is in a good condition, routine upgrade and maintenance of the R612 should be embodied in order to accommodate the traffic volumes which can be escalated by the proposed activities in Bulwer, Ixopo and Highflats as identified nodes.

The R617 has been identified as a primary corridor which mainly focuses on the enhancement of agricultural activities. To ensure the viability of this corridor, it is undeniable that this road requires urgent attention as it provides accessibility to (Kokstad-Underberg: Pietermaritzburg /Matatiele/Umtata/Lesotho). This is a clear

indication that this road has to be in a good condition to handle the household sizes within its vicinity and the types of transportation used for agricultural activities.

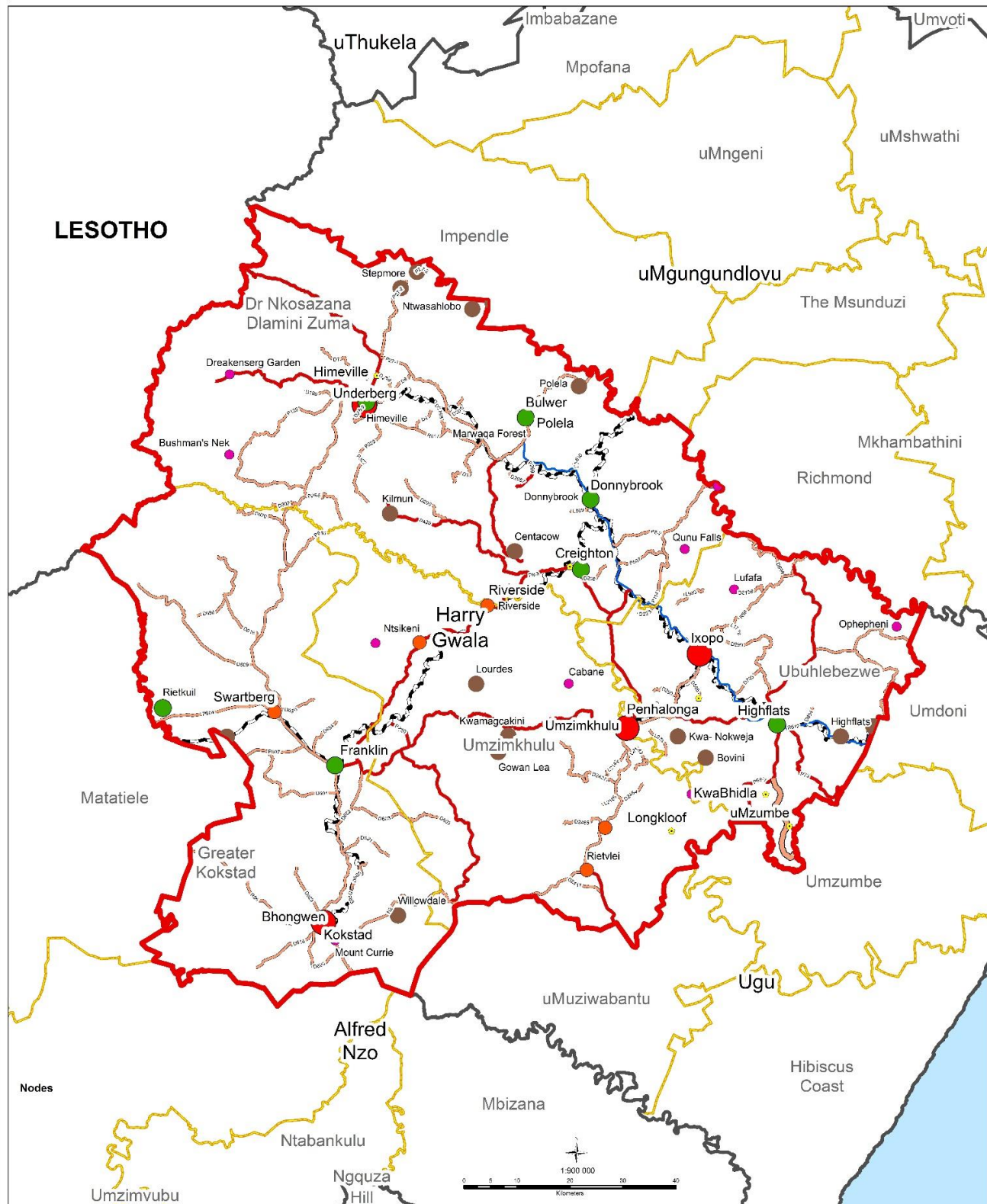
Due to the proposed economic and agri-tourism intensification in Kokstad, Ibisi and Rietvlei (as growth points), the N2 requires attention to ensure viability as a movement corridor. The table below demonstrates the levels of road prioritization for secondary and tertiary corridors.

Table 45: Road Prioritization

| Type of corridor | Road | Road Condition | Level of Priority |
|--|--|----------------|---------------------------------------|
| Secondary Corridors: Accessibility to social and economic activities as well as opportunities associated with agro-tourism | Franklin Lourdes- Umzimkhulu- (P601-1, P601-2) | Gravel | Priority 1: Requires Urgent attention |
| | Franklin – Ntsikeni-Riverside- Creighton (P602, P8-3) | | |
| | Highflats-Stepmore- Bucksland farm(P73, P113, P68-1) | | |
| | Highflats-Umzimkhulu(P112) | | |
| | Umzumkhulu-Riverside (P749) | | |
| | Underbewrg-Drakensbug Garden(P317) | | |
| | Hiemville-Sani Pass(P126) | | |
| | Umzimkhulu-Creighton-Highflats(P122) | | |
| | Riverside-Bulwer(P422,P299) | | |
| | Franklin-Ntseikeni-Riverside-Umzumkhului(P750,P602,P749) | | |
| Tertiary Corridors: Provides linkage between settlements and creates accessibility to services | Swartberg- Matatiele(R604) | Gravel | Priority 2: Requires attention |
| | Jolivet-Ophepheni(P729,P77) | | |
| | Ixopo-Hela Hela(P114,P8-2) | | |

The major role of the secondary and tertiary corridors although in different scales is to provide access to services. As indicated in the above table, all these roads are gravel. As such, secondary corridors requires urgent attention as they play a major role in creating a direct access to economic and social facilities within the district. Although this is the case, attention still needs to be provided for tertiary corridors which provides connectivity between settlements. The municipality need to prioritize the roads outlined in the table above in terms of the levels of activities and households numbers in close proximity to these roads.

SDF: Harry Gwala Nodes and Proposed Priority Roads Upgrades Map



Data Source:
KZN Department of Transport (2015).

Prepared By: YB Mashalaba &
Associates Consultants

13-06-2017

Legend

Nodes

Town

Primary Node

Tertiary Node

Rural Service Centre

Secondary Node

Tourism

Harry Gwala DM

District Municipalities

Local Municipalities

Proposed Roads Upgrades

Priority 1 - Requires Urgent Attention

Priority 2 - Requires Attention

Priority 3 - Requires Upgrade

Railways

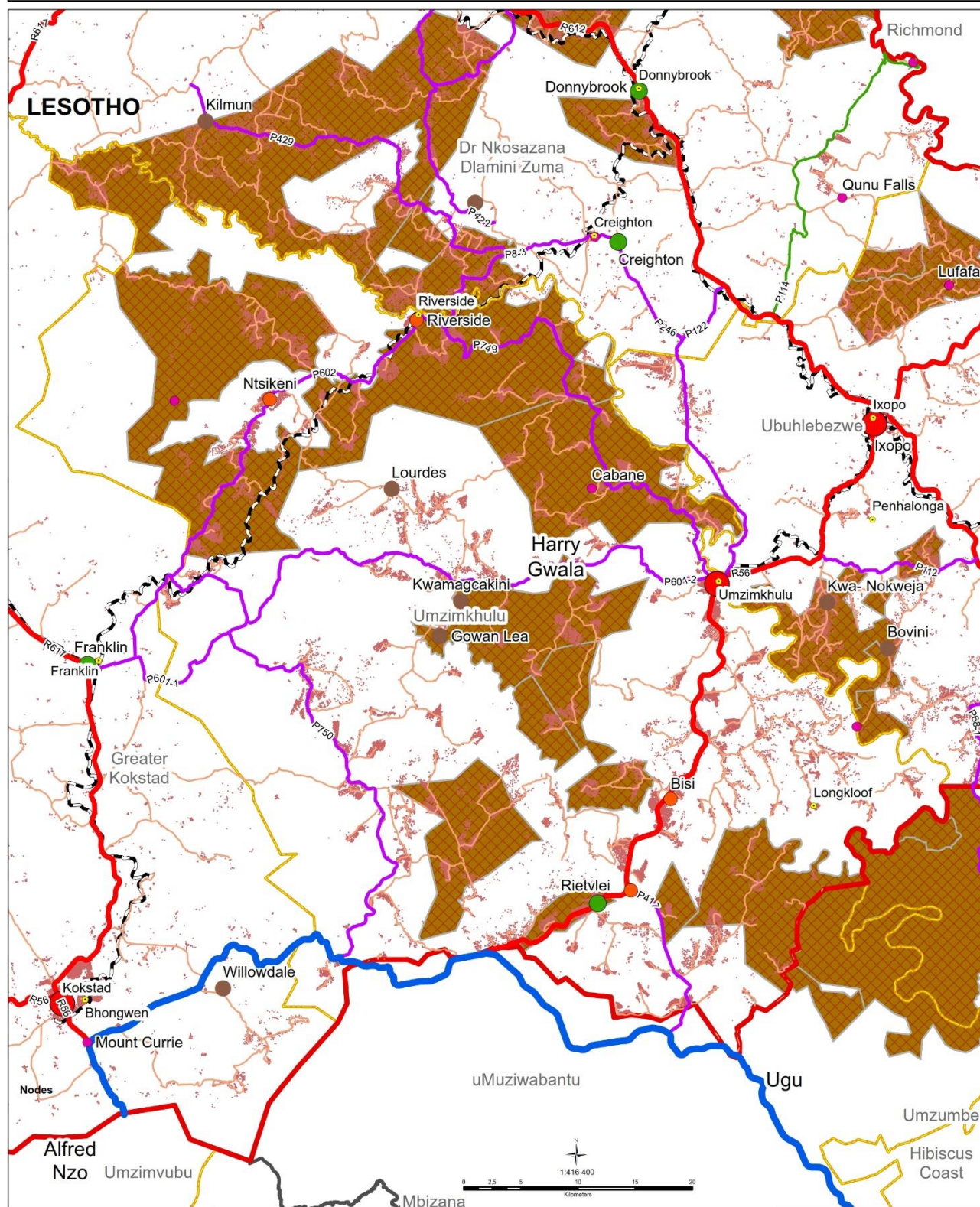
Indian Ocean

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3246
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Fax: 039-834170



Map 32: Proposed Priority Roads for Harry Gwala DM

SDF: Umzimkhulu Proposed Rural Roads Upgrades Map



Data Source:
KZN Department of Transport (2015).
KZN Provincial SDF (2016).
Harry Gwala District Growth & Development
Development Strategy (2014).
Eskom (2013).

Prepared By: YB Mashalaba &
Associates Consultants

13-06-2017

Legend

Nodes

● Town

● Primary Node

● Secondary Node

● Tertiary Node

● Rural Service Centre

● Tourism

Corridor Type

— Primary

— National

— Secondary

— Tertiary

— Rural Roads Upgrades

— Railways

■ Harry Gwala DM

■ District Municipalities

■ Local Municipalities

■ Indian Ocean

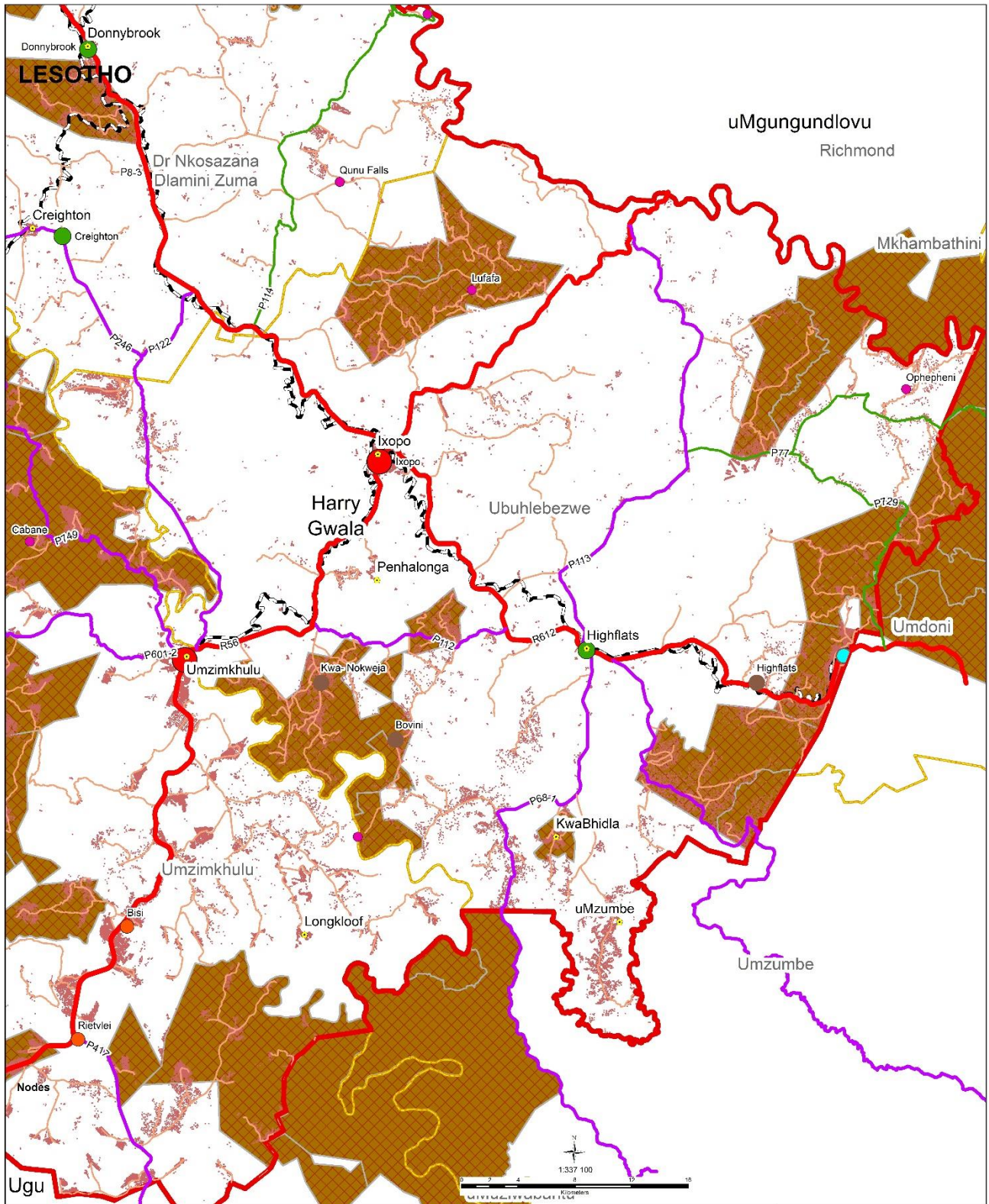
■ Traditional Authorities



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Map 33: Rural Roads Upgrade for Umzimkhulu

SDF: Ubuhlebezwe Proposed Rural Roads Upgrades Map



Data Source:
KZN Department of Transport (2015).
KZN Provincial SDF (2016).
Harry Gwala District Growth & Development
Development Strategy (2014).
Eskom (2013).

Prepared By: YB Mashalaba &
Associates Consultants

13-06-2017

Legend

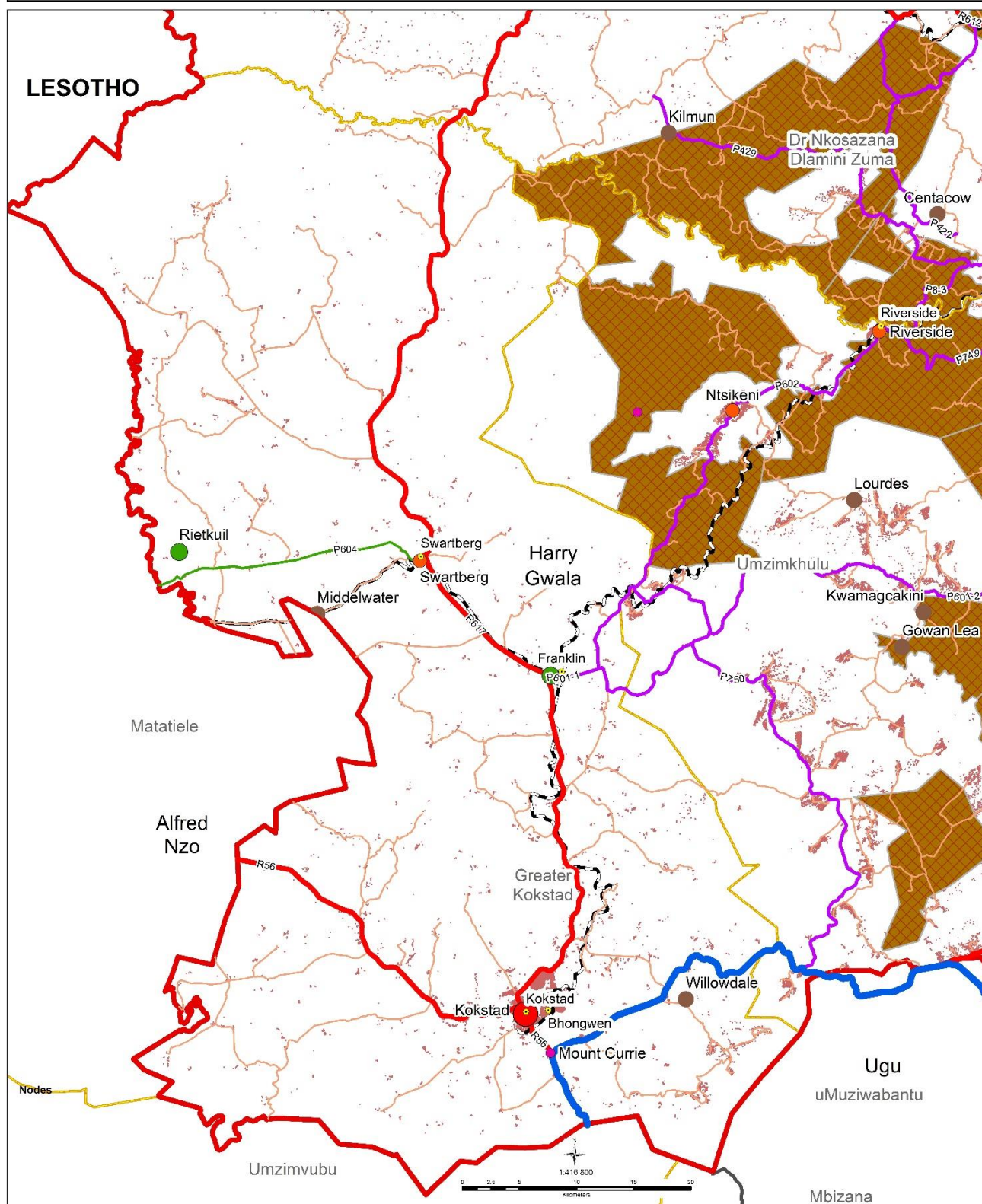
- | | | | | | |
|---------------------|----------------|----------------------|----------------------|-------------------------|-------------------------|
| Settlement Patterns | Primary Node | Tertiary Node | Primary | Harry Gwala DM | Traditional Authorities |
| Merged roads | Secondary Node | Rural Service Centre | National | District Municipalities | |
| Town | Tourism | Corridor Type | Secondary | Local Municipalities | |
| | | | Tertiary | Indian Ocean | |
| | | | Rural Roads Upgrades | | |
| | | | Railways | | |

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Ixopo
3246
Tel: 039-834870C
Fax: 039-834170



Map 34: Rural Roads Upgrade for Ubuhlebezwe

SDF: Greater Kokstad Proposed Rural Roads Upgrades Map



Data Source:
KZN Department of Transport (2015).
KZN Provincial SDF (2016).
Harry Gwala District Growth & Development
Development Strategy (2014).
Eskom (2013).

Prepared By: YB Mashalaba &
Associates Consultants

13-06-2017

Legend

Settlement Patterns

Nodes

Town

Primary Node

Secondary Node

Tertiary Node

Rural Service Centre

Tourism

Corridor Type

Primary

National

Secondary

Tertiary

Rural Roads Upgrades

Railways

Harry Gwala DM

District Municipalities

Local Municipalities

Indian Ocean

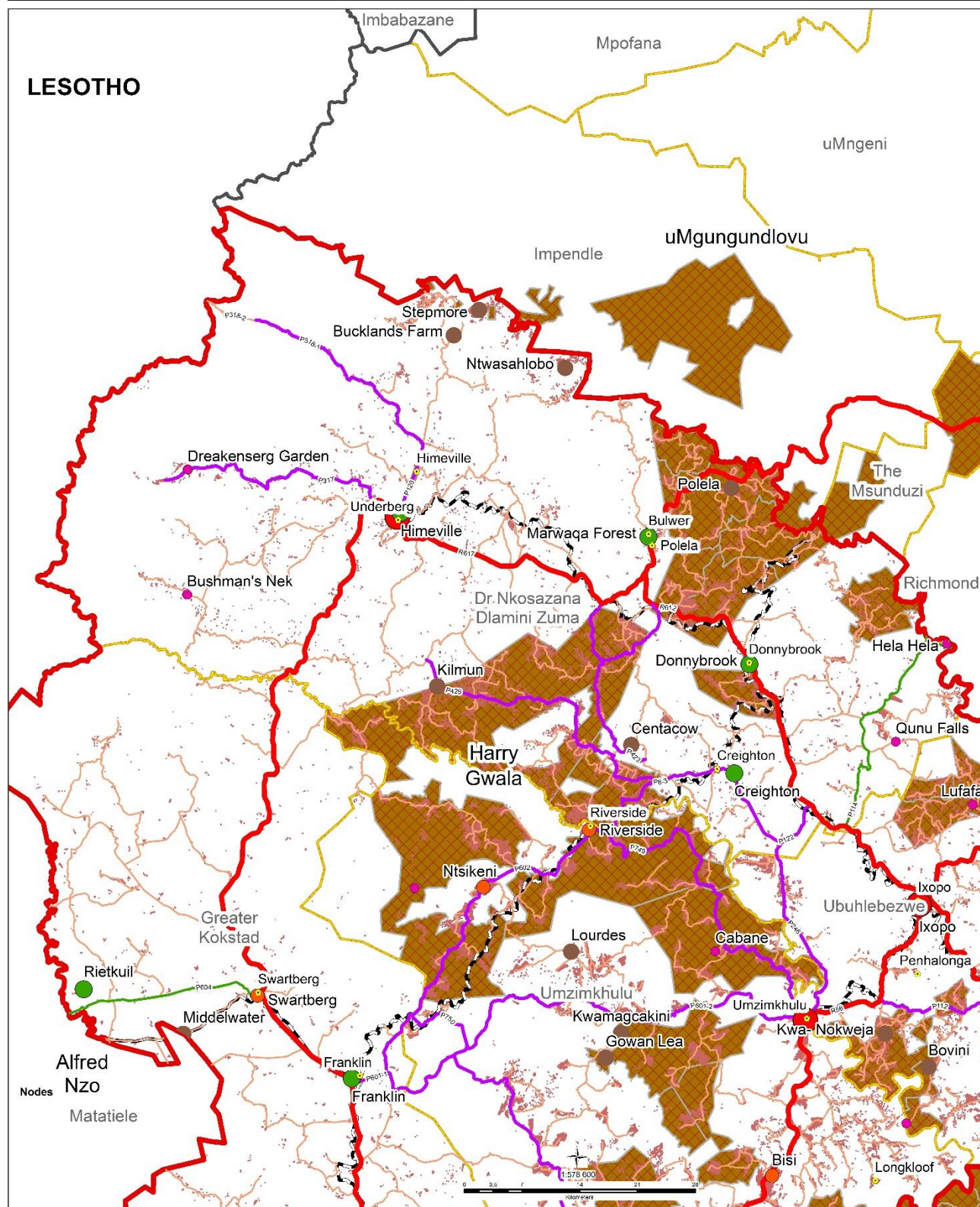
Traditional Authorities

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3246
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Map 35: Rural Roads Upgrade for Greater Kokstad

SDF: Dr Nkosazana Dlamini Zuma Proposed Rural Roads Upgrades Map



Data Source:
KZN Department of Transport (2015).
KZN Provincial SDF (2016).
Harry Gwala District Growth & Development
Development Strategy (2014).
Eskom (2013).

Prepared By: YB Mashalaba &
Associates Consultants

13-06-2017

Legend

Settlement Patterns

Nodes

Town

Primary Node

Secondary Node

Tertiary Node

Rural Service Centre

Tourism

Primary

National

Secondary

Tertiary

Rural Roads Upgrades

Railways

Harry Gwala DM

District Municipalities

Local Municipalities

Indian Ocean

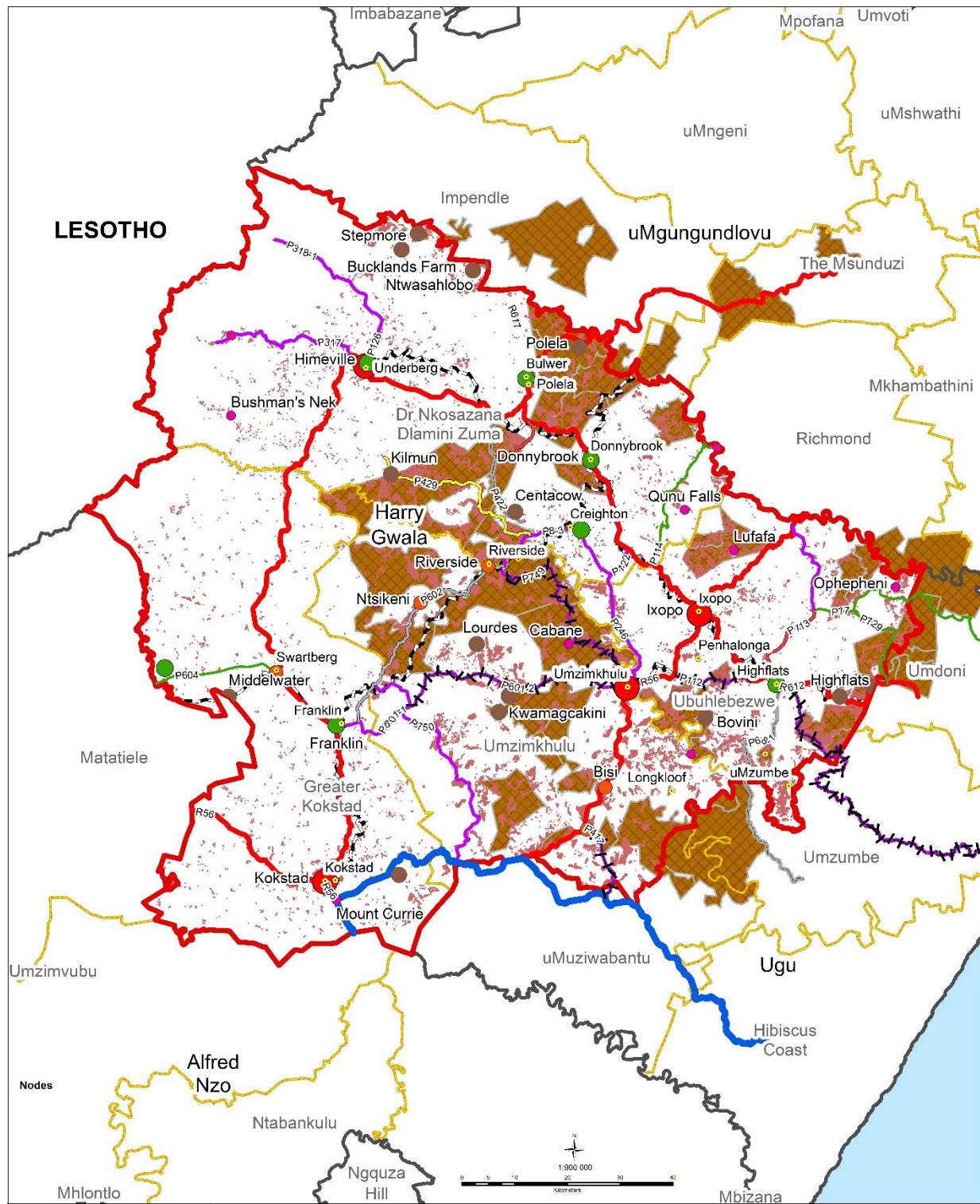
Traditional Authorities

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Ixopo
3246
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Fax: 039-834170



Map 36: Rural Roads Upgrade for Dr Nkosazana Dlamini-Zuma

SDF: Harry Gwala Planned Roads Upgrades and Settlement Patterns Map



Data Source:
KZN Department of Transport (2015).
KZN Provincial SDF (2016).
Harry Gwala District Growth & Development
Development Strategy (2014).
Eskom (2013).

Prepared By: YB Mashalaba &
Associates Consultants

13-06-2017

| Legend | | Corridor Type | |
|---|--|---|---|
| ● Town | ● Rural Service Centre | — Primary | — District Municipalities |
| ● Primary Node | ● Secondary Node | — National | — Local Municipalities |
| ● Tertiary Node | ● Tourism | — Secondary | — Railways |
| — Surface | — Surface upgrade in process (blacktop) | — Tertiary | — Settlement Patterns |
| | | | — Traditional Authorities |
| | | | — Indian Ocean |

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Ixopo
3246
Tel: 039-8348700
Fax: 039-834170



Map 37: Planned Road Upgrades
Source: KZN-Department of Transport

7.5. ACCESSIBILITY AND THE PROVISION OF INFRASTRUCTURE IN GROWTH POINTS

The fact that Kokstad was identified as an area which requires an additional water supply as the town is experiencing rapid growth should be taken into consideration. In this regard, the water supply infrastructure should be channelled in the direction of the proposed low income housing units in Kokstad. Water supply infrastructure should also be directed towards Umzimkhulu settlements as water provision is scarce in those areas. To enhance the development of the identified growth points in Rietvlei and Ibisi, it is essential to ensure the provision of adequate water supply and sanitation facilities, more particularly in relations to catering for the proposed economic activities along the R56. Additionally the water supply should be provided to accommodate not only individual households, but also provisions be made to accommodate commercial farming.

SDF: Harry Gwala Infrastructure and Settlement Patterns Map



Map 38: Infrastructure and settlement patterns

Source: Department of Transport KZN

7.6.1. Sustainable Rural Densification

7.6.1.1. SETTLEMENTS AND LAND CLAIMS

Map 24 depicts the locations of land claims in relation to the settlements. It can be noted that the majority of the land claims are located in Ubuhlebezwe and Umzimkhulu, towards the north-east of the district. The claims are mostly outside the urban settlements and traditional authorities. The implication is that the land claims are placed on land that could be for agricultural purposes. The intentions with the land of the new land owners would be of paramount importance, as the plans should be in line with the spatial vision of the district.

7.6.1.2. TRADITIONAL AUTHORITIES AND SETTLEMENT PATTERNS

Traditional authorities are characterised by larger footprint of households in comparison to those that are not traditional authorities (refer to the Map below), reiterating the rural nature of the district. With regards to local municipalities, high population densities can be noted in Dr Nkosazana Dlamini-Zuma, Ubuhlebezwe, and Umzimkhulu, all of which have traditional authorities. Greater Kokstad do not have traditional authorities, although this municipality comprise of low population densities. This then raises the issues of planning, land management and land use facilitation, since there are minimal to none land use management tools in traditional authorities. Even if there were such tools in the local municipalities, there would be an issue of the level to which these tools are implemented.



Map 39: Land Reform and Settlement Patterns



Map 40: Traditional Areas and Settlement Patterns

7.6.1.3. SETTLEMENTS, INDIGENOUS FORESTS AND PROTECTED AREAS

It can be noted on the Map below, that there are settlements that are located in close proximity to indigenous forests and protected areas. Due to the rural nature of the district, largely characterised by Traditional Authorities, there is minimal safeguarding and protection of the natural environment. Although the residents in the rural areas use the natural resources, such as wood, for the betterment of their livelihoods, they sometimes are unaware of the impacts their actions may have on the environment. It is therefore vital that concept of sustainable use of resources be introduced in rural areas.

SDF: Harry Gwala Protected Areas, Indigenous Forests and Spot Buildings Count Map



Data Source:
Department of Transport KZN
Eskom (2013)
South African Protected Areas
Database (2014).

Prepared By: YB Mashabela &
Associates Consultants
11-05-2017

Legend

- Spot Buildings Count
- Towns
- South African Roads
- Railways
- Indigenous Forests
- Existing Protected Areas
- Harry Gwala DM
- District Municipalities
- Local Municipalities
- Indian Ocean

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Ixopo
3246
Tel: 039-8348700
Fax: 039-8341701



Map 41: Settlements, Indigenous Forests and Protected Areas

7.6.2. Sustainable Urban Settlements

7.6.2.1. UNEMPLOYMENT AND SETTLEMENT PATTERNS

A pattern whereby high number of unemployed people is positively correlated to high densities of settlements can be traced in Dr Nkosazana Dlamini-Zuma and Ubuhlebezwe Municipalities (refer to the Map below).

The rural nature of Umzimkhulu LM restricts substantial growth and development performance. In addition, the informal economy of this municipality is very fluid in terms of unfulfilled consumer demands. Although this is the case, the fact that Umzimkhulu LM comprise of bulk of land which can fuel business opportunities based on agricultural development should not be ignored. This sector can be penetrated to provide employment opportunities, while reducing poverty levels of communities within the jurisdiction of this municipality.

SDF: Harry Gwala Unemployment and Settlement Patterns Map

The map displays the Harry Gwala District Municipality, which is divided into several local municipalities: Himeville, Underberg, Dr Nkosazana Dlamini Zuma, Bulwer, Polela, Donnybrook, Creighton, Riverside, Umzimkhulu, Ixopo, Ubuhlebezwe, Penhalonga, Highflats, KwaBhida, Longkloof, uMzombe, Kokstad, Bhongwen, Swartberg, Franklin, and Greater Kokstad. The map is color-coded to show the number of unemployed people in 2011, with a legend indicating ranges from 0 to 882. The map also shows settlement patterns, towns, railways, and roads. Surrounding municipalities and provinces are labeled, including Lesotho, uMgungundlovu, uMshwathi, uMzuzwabantu, and uGungu. The map includes a scale bar (0 to 38 km) and a north arrow.

Data Source:
KZN Department of Transport (2015).
Eskom (2013).
Statistics SA (2011).

Prepared By: YB Mashalaba &
Associates Consultants

20-05-2017

| Legend | | No. of People Unemployed (2011) | |
|---------------------|-------------------------|---------------------------------|-----------|
| Settlement Patterns | Harry Gwala DM | 0 - 15 | 66 - 102 |
| Towns | District Municipalities | 15 - 39 | 102 - 147 |
| Railways | Local Municipalities | 39 - 66 | 147 - 225 |
| South African Roads | Indian Ocean | 66 - 102 | 225 - 309 |
| | | 309 - 465 | 465 - 882 |

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Ixopo
3246
Tel: 039-8348700
Fax: 039-8341701

Map 42: Unemployment and Settlement Patterns

7.7. SPATIAL PLANNING CATEGORIES

This section provides basic guidelines for land use management for Harry Gwala District Municipality. These guidelines are underpinned by the following principles:

- ❖ Social inclusion;
- ❖ Protection of the environment;
- ❖ Sustainable use of resources;
- ❖ Economic growth;
- ❖ Accessibility; and
- ❖ Suitable site selection.

It should be noted that the guidelines are **NOT** obligatory for the district to abide by, rather they are tools through which could be utilised to guide spatial planning, land development as well as land use management. The guidelines are as follows:

Table 46: Spatial Planning categories

| CORE CONSERVATION AREAS | |
|---|--|
| A.a. Statutory Protected Areas | |
| <i>Areas designated in terms of legislation for biodiversity conservation, defined categories of outdoor recreation and non-consumptive resource use. Conservation purposes are purposes normally or reasonably associated with, the use of land for the protection of the natural and/or built environment, including the protection of the physical, ecological, cultural and historical characteristics of land against undesirable change.</i> | |
| Current | Future |
| All the conservation and protected areas. In addition, the following also form part of statutory protected areas: <ul style="list-style-type: none"> • Maloti-Drakensberg Transfrontier Project; • uKhahlamba-Drakensberg Park World Heritage Site; and • The Ngwagwane catchment. | <ul style="list-style-type: none"> • Development in the direction of protected areas should be prohibited, in order to ensure that the indigenous biodiversity, unique heritage and scenic resources are conserved. • Should tourism development occur in these areas, there should not be any permanent transformations made to them, and the resources should be utilised in a sustainable manner. |
| BUFFER | |
| B.b. Conservation areas | |
| These areas include critical biodiversity areas, ecological support areas as well as ecological infrastructure. Ecological Support Areas (ESAs) Areas are required to support and sustain the ecological functioning of Critical Biodiversity Areas (CBAs). Ecological infrastructure areas include include perennial and non-perennial rivers, wetlands within the Municipality. They provide essential ecosystem services and also provide water quality and mitigate floods. | |
| Current | Future |
| Major river corridors including: <ul style="list-style-type: none"> • Mkomazi River; • Loteni River; • Nzinga River; • Mkomazane River; • Elands River; and • Xobho River. | <ul style="list-style-type: none"> • There should be restraint of development to small and low-density footprint, as well as eco-friendly tourism and recreational facilities. • For simpler delineation of buffer areas, there should be plantation of trees along the boundaries. |

| | |
|---|--|
| | <ul style="list-style-type: none"> • Development such as hardened structures, hardened surfaces and removal or clearance of the critical biodiversity areas, which may result in species disturbance is prohibited, however development is only allowed 30m away and such should be subject to Environmental Impact Assessment. • Development in ecological support areas is prohibited unless the development is 100m away from the Ecological Support Areas. • Development in ecological infrastructure areas is prohibited, unless the development is 30m away as per the Ezemvelo KZN Wildlife: KZN Biodiversity Spatial Planning Terms and Processes |
| AGRICULTURAL | |
| C.a. Extensive Agricultural Area | |
| <i>Agricultural areas covered with natural vegetation, used for extensive agricultural enterprises, e.g. indigenous plant harvesting, extensive stock-farming, game-farming, eco-tourism.</i> | |
| Current | Future |
| <p>This includes the following:</p> <ul style="list-style-type: none"> • Threatened; • Primary Agricultural Land; • Secondary Agricultural Land; and • Mixed Agricultural Land. | <p>The desired outcome for agricultural land in is as follows:</p> <ul style="list-style-type: none"> • Protection of prime and unique agricultural land; • Promotion of sustainable farming practices; • Provision of land and agrarian reform; and • Improvement of the viability of farming. <p>Dairy and Beef in Greater Kokstad and Dr Nkosazana Dlamini-Zuma; Subsistence farming in Umzimkhulu and Ubuhlebezwe (potential for commonages)</p> |
| URBAN | |
| D.C. Rural Settlements | |
| <i>Smaller towns and rural settlements that fall under the jurisdiction of Category B Municipalities (i.e. towns and rural settlements forming part of a Local Municipality).</i> | |
| Current | Future |
| Administrative centres in Local Municipalities, providing basic services to the surrounding communities | <ul style="list-style-type: none"> • Main Local Municipal Administrative Centre; • Economic hubs for the respective municipalities • Sustainable and coordinated commonage projects |
| INDUSTRIAL | |
| E. Industrial Related Areas | |
| <i>Agro-processing, light industrial as well as heavy industrial activities</i> | |
| Current | Future |
| Manufacturing only accounts for 6% of the Gross Value Added in Harry Gwala | <ul style="list-style-type: none"> • The development of industrial activities should occur in suitable locations • Industrial activities should also occur in appropriate scales. |

| SURFACE INFRASTRUCTURE AND BUILDINGS | |
|---|---|
| F.a. National Roads | |
| Current | Future |
| N2 linking (Port Shepstone-kokstad-Mthatha) | <ul style="list-style-type: none">Improved economic activities along the route i.e. tourism and trade. |
| F.b. Main Roads | |
| Current | Future |
| R56(Richmond-Ixopo-Kokstad-Cedarville-Matatiele) | <ul style="list-style-type: none">Primary Corridors in the district;Play a significant role in the overall economy of the district;Useful for trade and transportation of goods;Movement of people;Act as connectors to neighbouring local municipalities |
| R612 (Bulwer-Creighton-Ixopo-HighFlats) | |
| R617 (Kokstad-Underberg-Hiemville- Bulwer-Umsunduzi) | |
| F.c. Minor Roads | |
| Secondary Corridors, tertiary corridors | <ul style="list-style-type: none">Linking rural service points with other nodes;Play a significant in the rural economy;Improve accessibility to social amenities;Improve accessibility to economic hubs; andProvide accessibility to rural settlements |
| F.f. Railway Lines | |
| Linking Eastern Cape with KwaZulu-Natal (through Kokstad, Ntsikeni and Creighton) | <ul style="list-style-type: none">Increase use for the transportation of goods, which have been produced within the district |

It is, however, imperative for the local municipalities, in association with traditional authorities to draft and adopt wall-to-wall Land Use Management Schemes.



Map 43: Spatial Planning categories

7.8. SERVICE GAP AREAS

7.8.1. Settlements and Social Facilities

The provision of accessible social amenities contributes extensively to the improvement and quality of life of communities. The location of social facilities is in coloration to the hierarchy of nodes. The location of such facilities is mainly influenced by how people relate to space. Ixopo is the main service town of Ubuhlebezwe LM, while in Dr Nkosazana Dlamini-Zuma LM people use service centres in Underberg. People in Umzimkhulu LM relate to facilities in Umzimkhulu town, while Kokstad is the main town which provides social facilities. For a detailed illustration, please (refer to the Map below).

7.8.2. Nodes, Population and Service Provision

This section explores the relationship between economic opportunities, service provision and the location of most people (high density) in the various Harry Gwala local municipalities. The purpose of the analysis is to ultimately provide recommendations of how best to service most people in the district.

Due to the fragmented and dispersed settlement pattern of the district, it can be noted that a large number of households are beyond towns' or service centre's (nodes) the sphere of influence. The means spatial distribution results in residents incurring increased travelling costs and prolonged travelling time to get to these nodes for services. This also implicates the Harry Gwala Municipalities the high costs of infrastructure provision (electrification, road infrastructure and water supply).

- a) Greater Kokstad Local Municipality is characterised by low densities of settlements, but it is also characterised by a high number of people that are unemployed. High unemployment rate can be attributed to the fact that there are few opportunities of economic activity. The low density is a result of the bulk land being subject to commercial farming in Greater Kokstad. As a result, service provision in Greater Kokstad Municipality would have to be channelled to improving the condition that will allow commercial agriculture to flourish.
- b) The settlements within the Harry Gwala district still experiences the legacy of socio-economic segregation reinforced by apartheid planning. As a result, physical buffers such as rivers and limitation of proper roads infrastructure limits access and convenience to social and economic facilities. It is thus important to enforce measures that can influence the implementation of sustainable human settlements, through taking into account the recommended maximum time to travel to and from social and economic facilities.
- c) Low density makes it a challenge for provision of basic services and thus the minority left in rural settlements have little no provision of services. However, the evidence of land claims

issued on commercial farming land pose a challenge to the economy within the District. In this regard, strict land use regulations (avoiding encroaching rural settlements and/or land invasion) need to be implemented to protect the economic viability in the municipality.

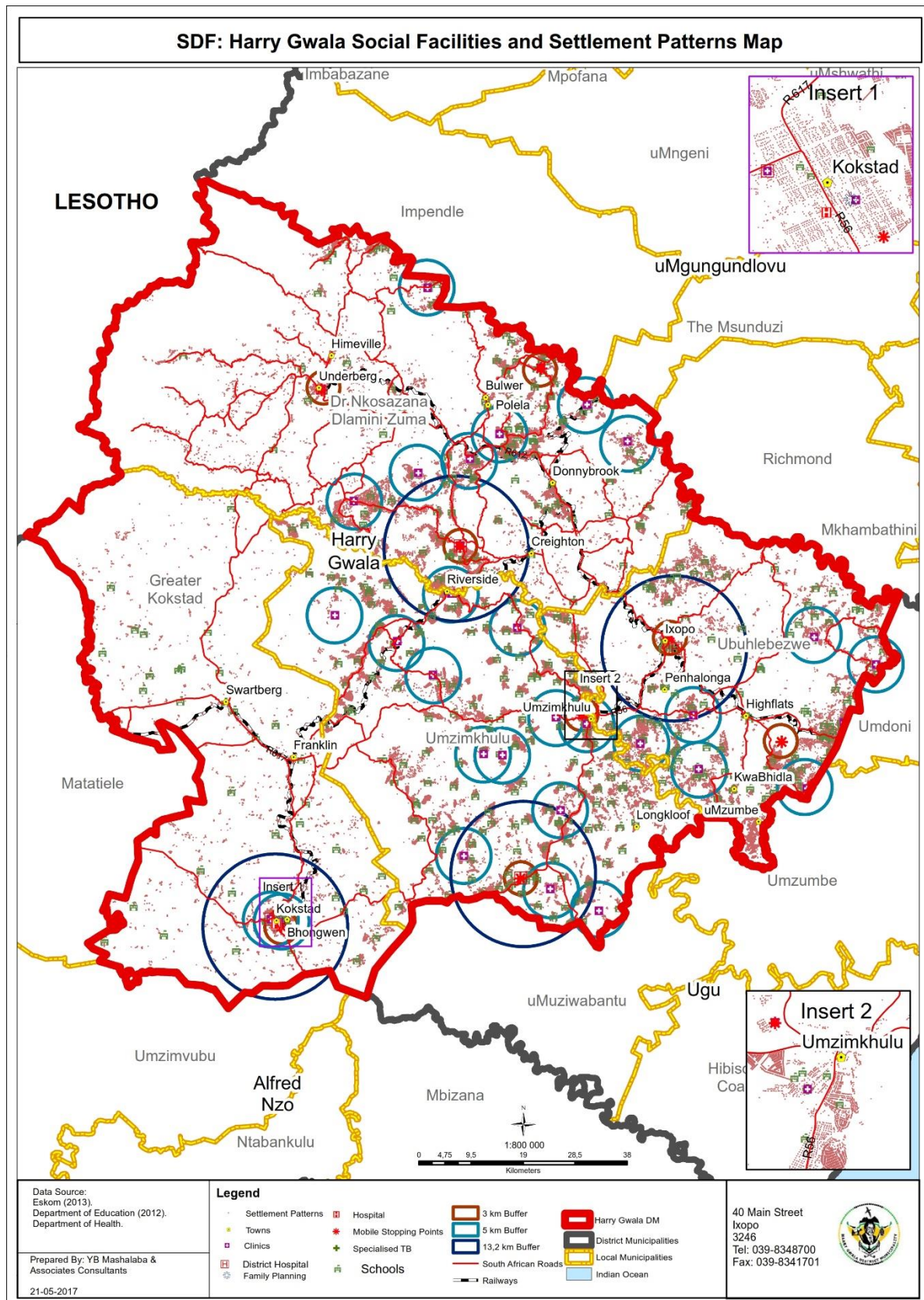
- d) Consequently, poor road conditions hinders access and development of services in close proximity to high density settlements. It is against this backdrop that proper road linkers needs to be established and existing ones be improved to reinforce flexible movement of people through a nodal system that supports the provision of public transport facilities, basic services as well as a nodal system which creates viable economic opportunities within the Harry Gwala DM.

7.8.3. Nodes-Corridors and Service Gap Area

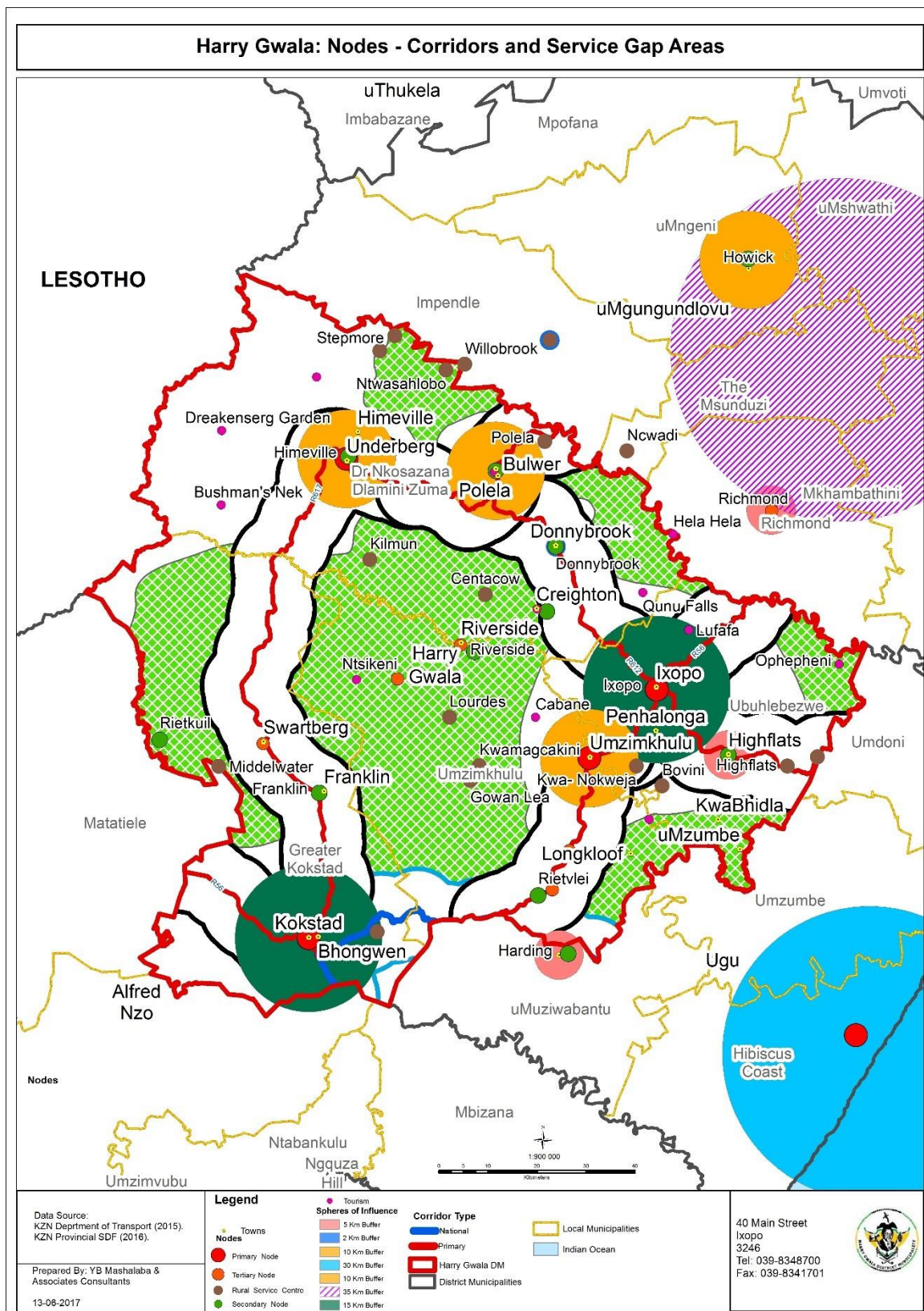
Although the development of nodes of nodes and corridors seeks to reduce serve gap areas. It can be noted that the landscape of Harry Gwala DM is developed upon transport orientated planning which can be spatially depicte along identified corridors which moves along the regional connector routes such as the R617, R612, R56 and the N2 as the national road (refer to Map 36). Notwithstanding the opportunities which can be enhanced in the Kokstad, Underberg/Himeville, Bulwer, Umzimkhulu and the Ixopo Town; the fact that there is limited economic activities and service gaps occurring within the central parts of Harry Gwala DM raises concerns. It is thus essential to foster growth and development in the identified nodes and corridors in order to improve efficiency with regards to service provision, economic development and the overall upliftment of livelihoods for citizens residing within the Harry Gwala DM.

7.8.4. Harry Gwala Water Schemes and Service Gap Areas

Due to the inner settlements (urban) within the Harry Gwala DM being more populated as compared to rural settlements, it can be noted that the service gap areas are diminishing. Apart from the opportunities which can be created by the proposed road network, it is clear that services are mainly provided in highly dense areas (refer to Map 44 and 45). This factor is clearly depicted along Dr Nkosazana Dlamini-Zuma LM whereby the areas within the municipality comprise of Water Schemes and standpipes. It can however be noted that developments needs to be thoroughly intensified in order to ensure that all citizens residing within the Harry Gwala DM have access to basic service. The issue of water scarcity is a national issue which not only have a negative impact on individual households, but also in businesses (agriculture). To harness the full potential of service gaps, though rough assessment to enhance the provision of water schemes and the overall basic services needs to be entrenched.

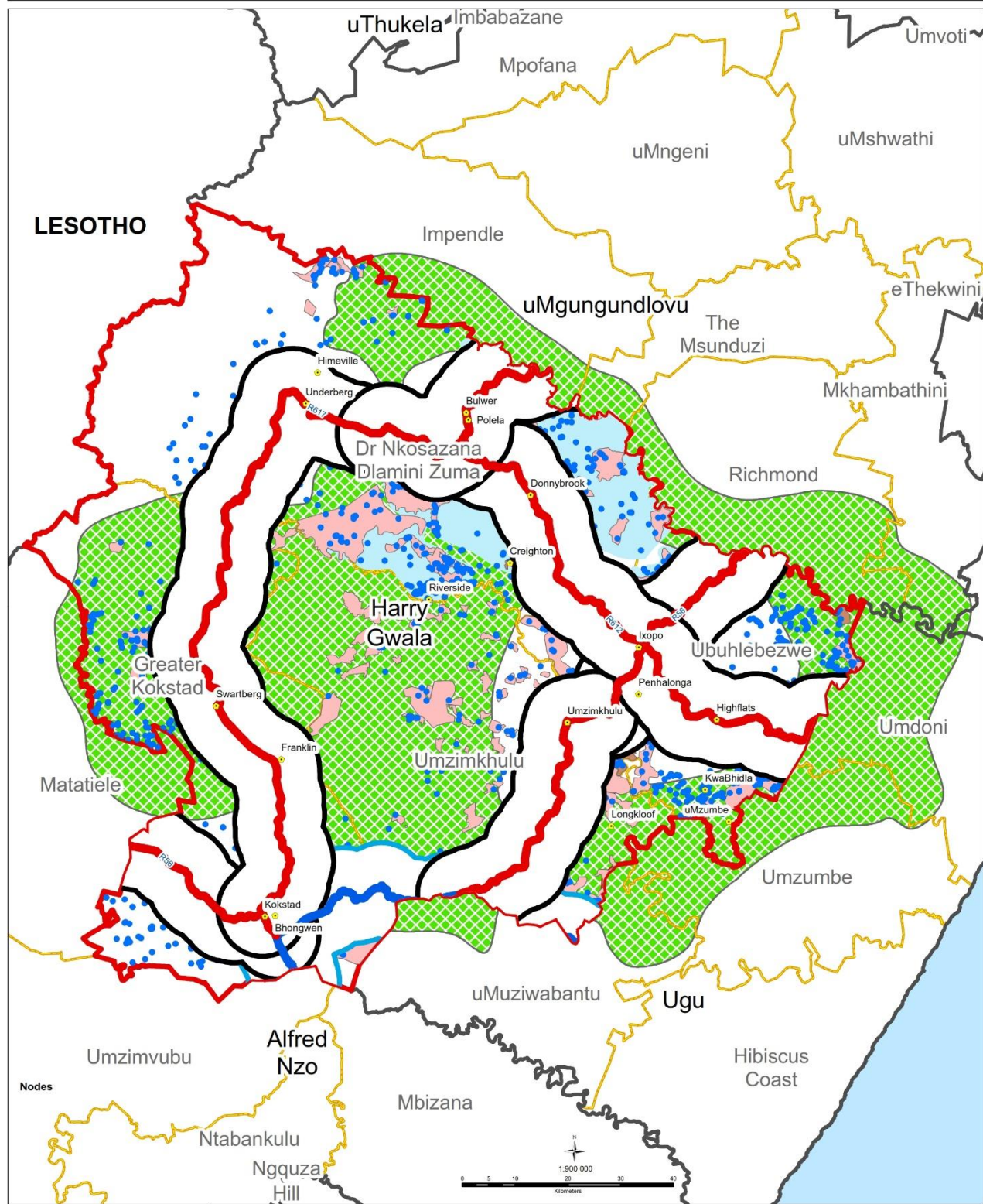


Map 44: Settlements and Social Facilities



Map 45: Nodes, Corridors and Service Gap Areas

SDF: Harry Gwala Water Schemes and Service Gap Areas Map



Data Source
KZN-Department of Transport,
KZN Provincial SDF (2016).

Prepared By: YB Mashalaba &
Associates Consultants
22-05-2017

Legend

- Water_Boreholes
- Towns
- Corridor Type
 - National
 - Primary

- Regional Buffer
- National Buffer
- Harry Gwala DM
- District Municipalities
- Local Municipalities

- Indian Ocean
- Service Gap Area
- Sanitation Scheme Areas
 - Existing
 - Future

Water Reticulation Schemes

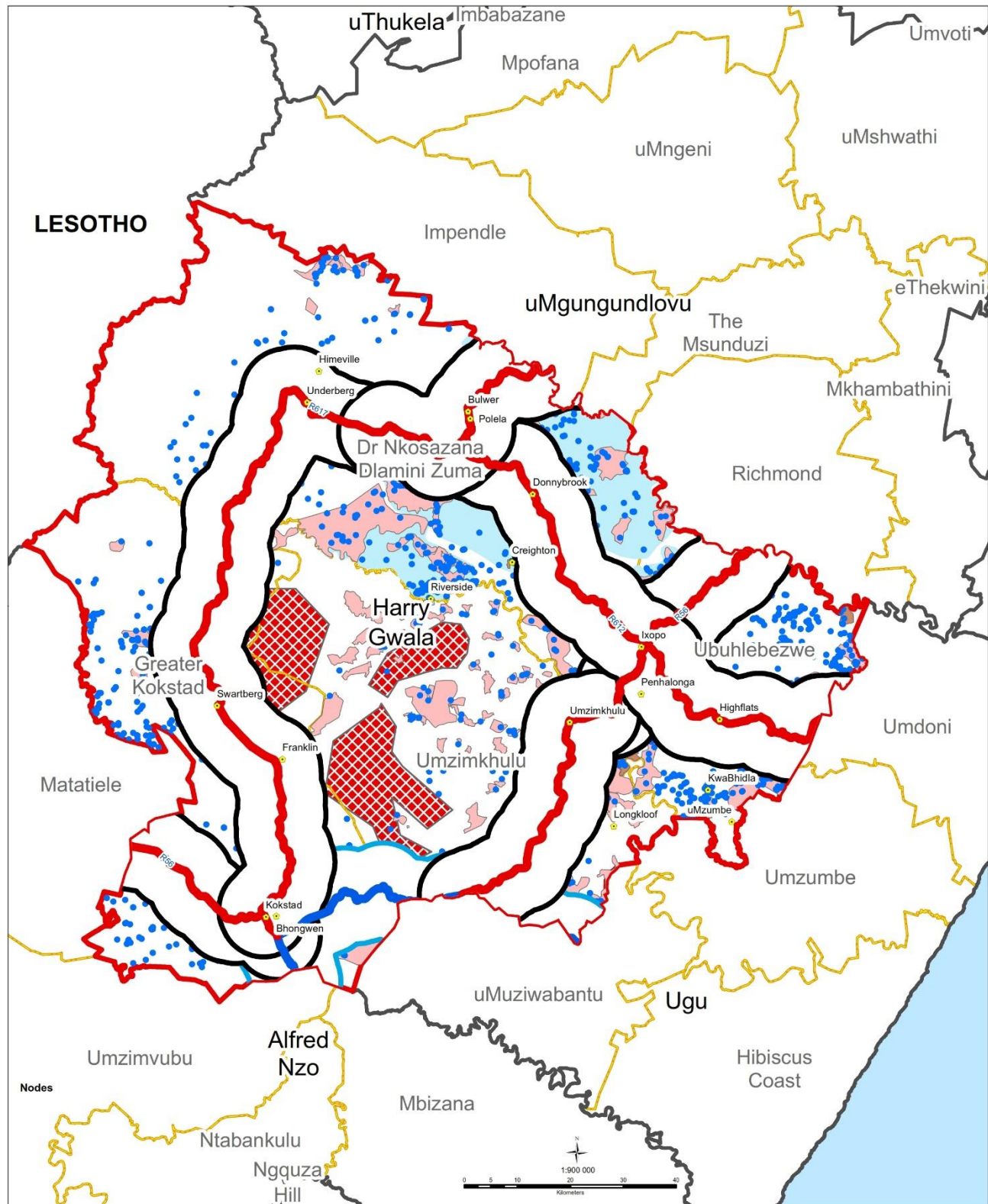
- Standpipes
- Urban
- Water Treatment Works
- Water Bulk Schemes

40 Main Street
Ixopo
3246
Tel: 039-834870C
Fax: 039-834170



Map 46: Water Schemes and Service Gap Areas

SDF: Harry Gwala Water Schemes and Service Gap Reduction Areas Map



Data Source
KZN-Department of Transport,
KZN Provincial SDF (2016).

Prepared By: YB Mashalaba &
Associates Consultants

22-05-2017

Legend

• Water_Boreholes

• Towns

Corridor Type

Blue National

Red Primary

Black Regional Buffer

Blue National Buffer

Red Harry Gwala DM

Grey District Municipalities

Yellow Local Municipalities

Light Blue Indian Ocean

Red Cross Critical Service Gap Areas

Sanitation Scheme Areas

Light Blue Existing

Dark Blue Future

Water Reticulation Schemes

Pink Standpipes

Orange Urban

Brown Water Treatment Works

Light Blue Water Bulk Schemes

40 Main Street
Ixopo
3246
Tel: 039-8348700
Fax: 039-834170



Map 47: Water Schemes and Service Gap Reduction Areas

8. IMPLEMENTATION FRAMEWORK

The District SDF is prepared to address spatial challenges that manifest not only in municipalities within the jurisdiction of the district but also that functions beyond the jurisdictional boundary of the district, with a spatial focus which channels economic develop and public investment in priority areas together with alignment to the Capital Investment Framework of the district. The SDF is a discretionary planning instrument which should involve participation of various stakeholders regarding the types and nature of projects to be developed and implemented. The implementation of such projects are vested upon the objectives that are outlined hereunder:

- Strengthen public investment to stimulate economic opportunities in order to identify job opportunities;
- Facilitate the upgrading of local infrastructure;
- Promote efficient use of resources and conservation of the natural environment and heritage sites; and
- Uplift the livelihood of communities through the provision of skills development programmes to allow them to be self-sufficient.

The implementation framework is thus embedded according to the spatial guidelines that are mainly informed by spatial challenges which promoted segregation and isolated settlements, did not provide recognition for rural economy and focused less on poverty and vulnerability of destitute areas. In addition to this, the current spatial challenges created after the abolishment of apartheid planning system are mainly influenced by the movement of people informal settlements, the degrading ecosystem and continued low density urban development within the district.

As a result, the set guidelines are embodied to embrace the arising spatial opportunities which can address fragmented and distorted spatial patterns in order to unlock rural and economic opportunities within the district. The implementation plan can be conducted to promote rural revitalization, urban renewal, the promotion of eco-tourism and natural conservation, green economy as well as integrated human settlements based on the following guidelines on regional issues and priorities:

- **Regional Issues**
 - ❖ Capitalize in the district's potential of being the gateway that connects the local municipality within the district with other parts of the South African Provinces in an effort to enhance economic opportunities through penetrating the trade and tourism industry within the district. The common feature of these connection are illustrated through corridors with an emphasis of road

rehabilitation to improve economic development on established nodes in the vicinity of communities adjacent to national and regional roads.

- ❖ Advocate for regional economic development through improving business and investment climate, promoting environmental conservation for protected and heritage sites, develop the labour market through skills development programmes; and
- ❖ Promote efficiency and accessibility through enhancing the provision of adequate transportation and roads system which can create a flexible movement of goods and people within and beyond the jurisdictional boundary of the district. This can be conducted through prioritization of projects focusing on the construction and rehabilitation of tarred and paved roads.

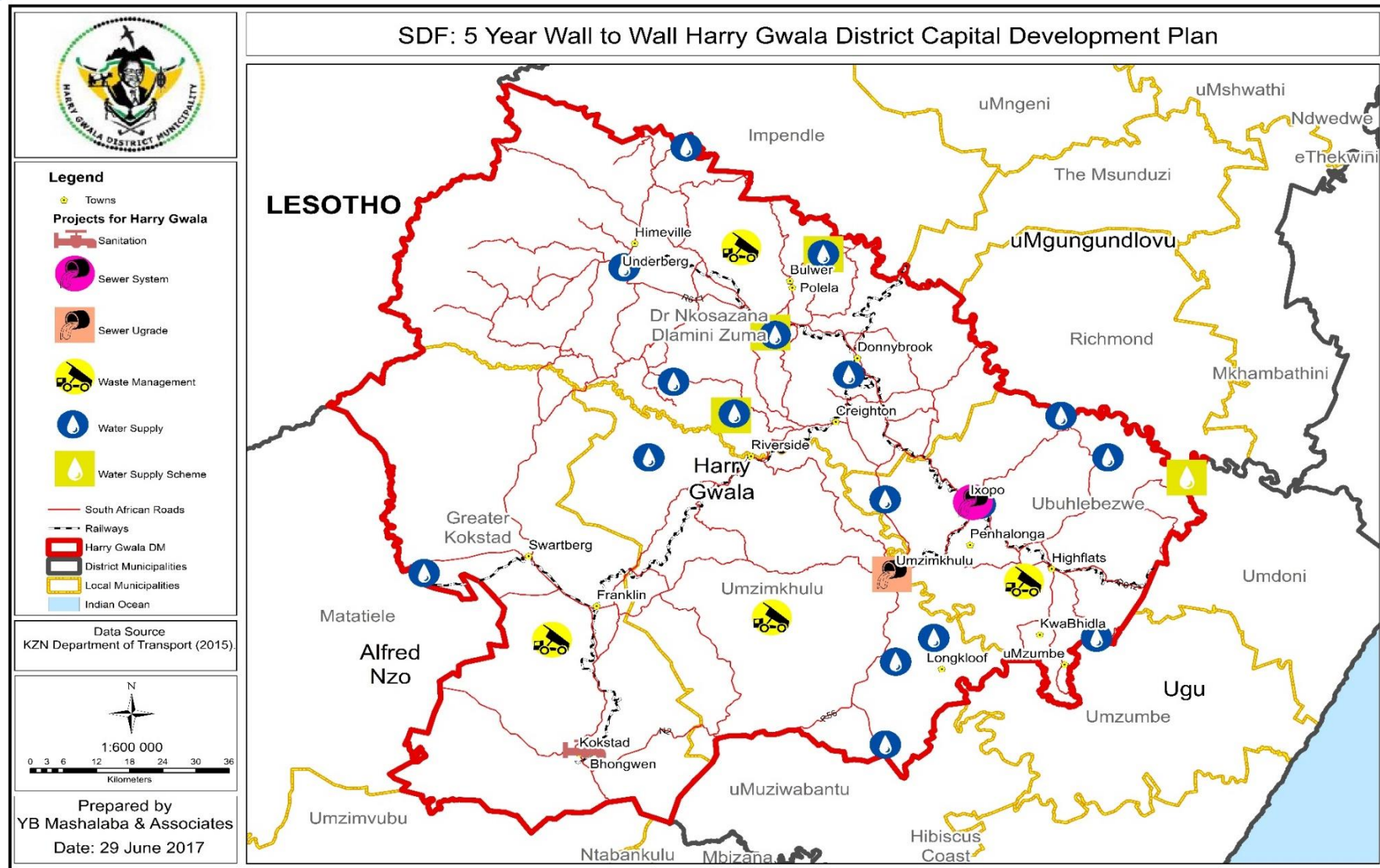
- **Regional development priorities**

The Harry Gwala IDP identified development priorities that are outlined hereunder:

- ❖ Biodiversity Conservation
- ❖ Maintenance of transportation Infrastructure
- ❖ Provision of basic infrastructure (water, sanitation, electricity and refuse)
- ❖ Land Accessibility
- ❖ Climate change
- ❖ Access to social amenities
- ❖ Informal Settlement clearance
- ❖ Investment and Economic Opportunities
- ❖ Agriculture and tourism sector development
- ❖ Access to Integrated Human Settlements

The main components that underpin the implementation of the above mentioned development priorities are demonstrated in the Capital Investment Framework. These priorities are embedded to align the municipal plans with the National and Provincial mandate in relation to basic service delivery.

8.1. CAPITAL INVESTMENT FRAMEWORK PLANNING

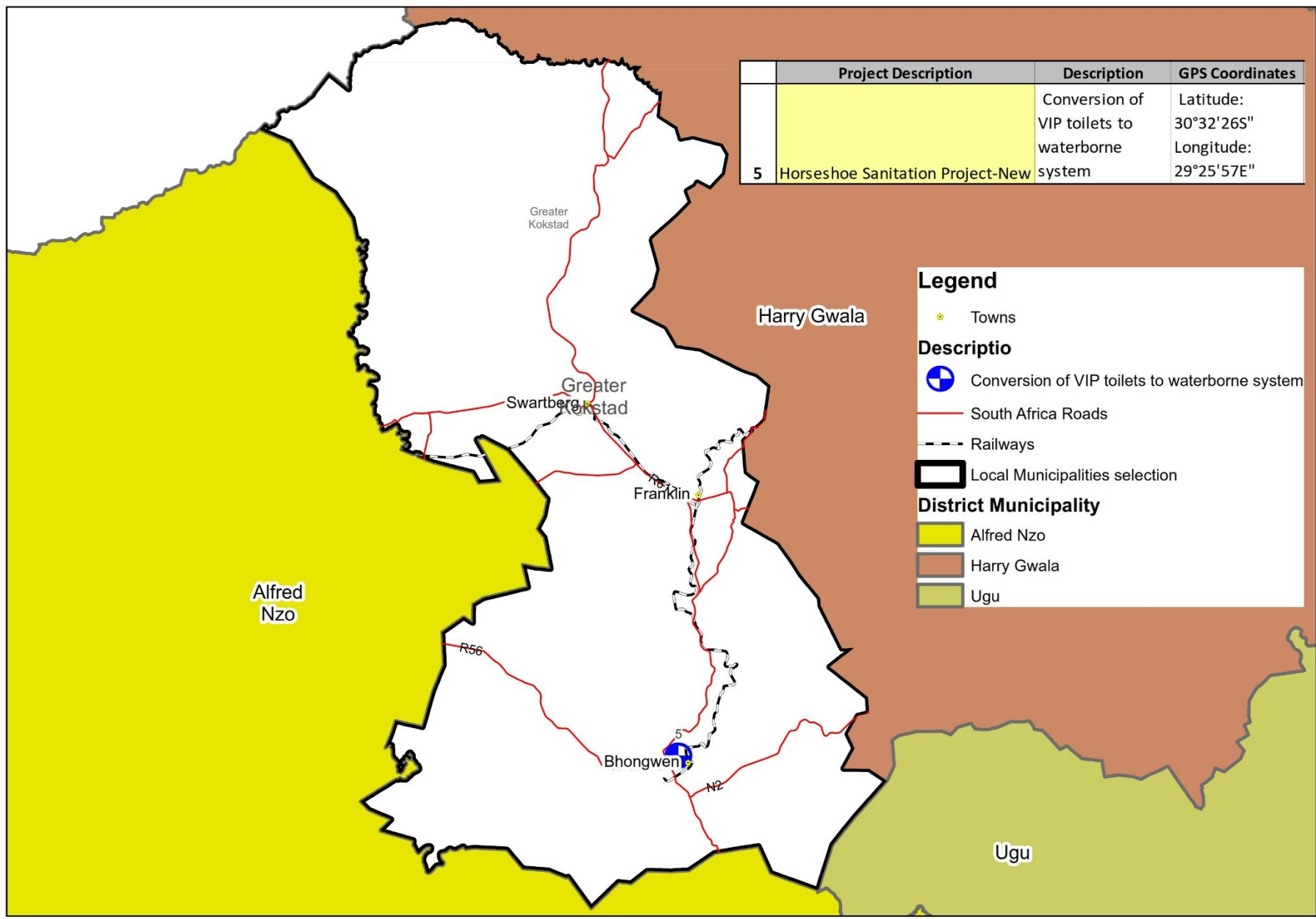


Map 48: 5 Year Wall to Wall Harry Gwala District Capital Development Plan

Table 47 below provides an outline of the current and future projects within Greater Kokstad Local Municipality. These are depicted spatially on the Map below.

Table 47: Capital Investment Framework for Greater Kokstad

| | Project Description | Own Strategic Objective | Amount | Function | Description | Funding Source | KPI | Individual Project | Ward |
|---|----------------------------------|--|--------|------------|--|----------------|--|---|------|
| 5 | Horseshoe Sanitation Project-New | To implement water borne sewer by 2016 | R20m | Sanitation | Conversion of VIP toilets to waterborne system | MIG | Number of households with water borne sanitation | 1. Site establishment - R2, 000,000.00 2. Conversion of VIP toilets to waterborne system - R18,000,000.000 | 1 |



Map 49: Capital Development Plan of Greater Kokstad

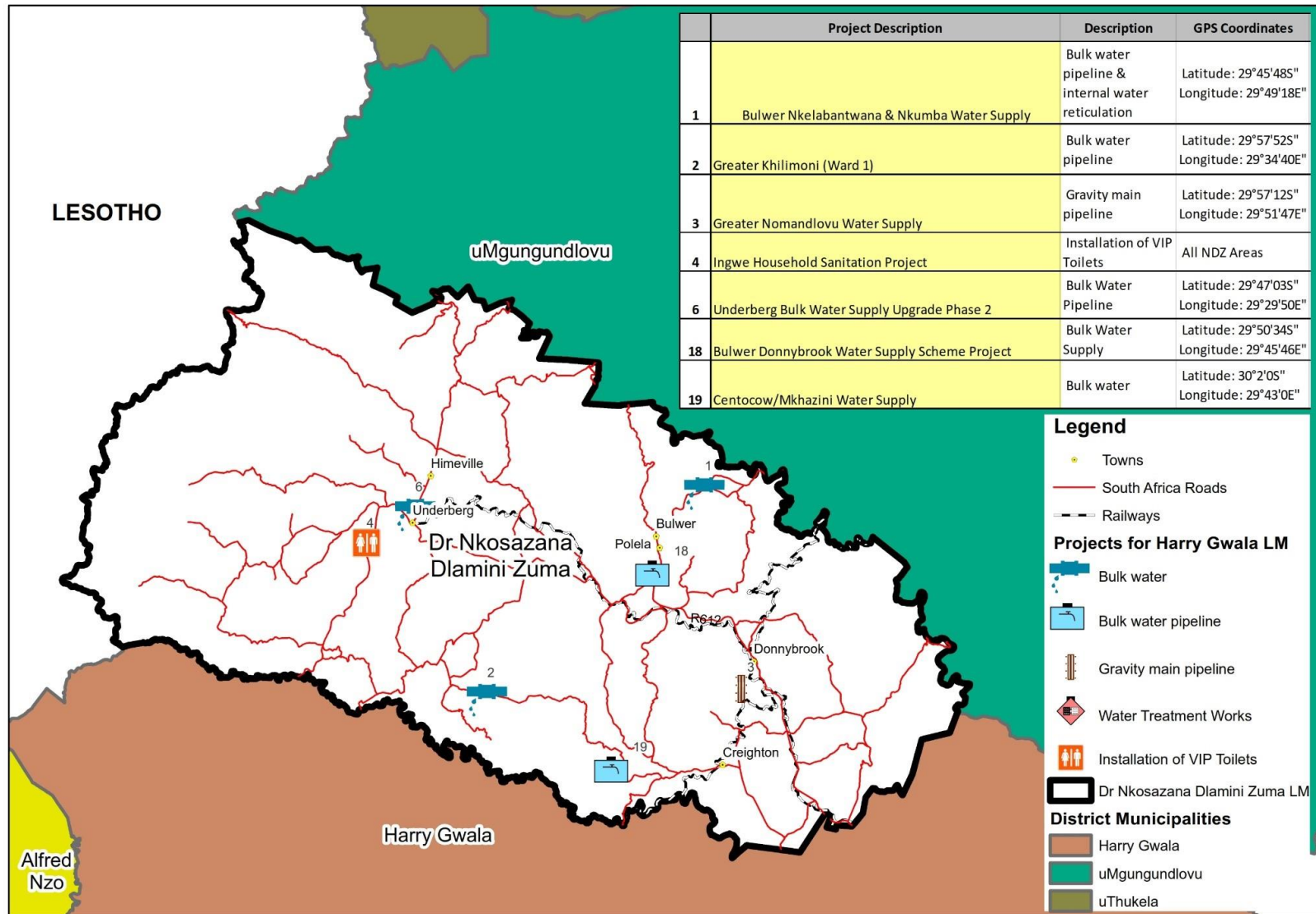
Table 48 below depicts the current and future projects within Dr Nkosazana Dlamini-Zuma, which are depicted spatially on the Map below.

Table 48: Capital Investment Framework for Dr Nkosazana Dlamini-Zuma

| | Project Description | Own Strategic Objective | Amount | Function | Description | Funding Source | KPI | Individual Project | Ward |
|---|--|--|--------|----------|---|----------------|---|--|------|
| 1 | Bulwer Nkelabantwana & Nkumba Water Supply | To implement and upgrade water infrastructure projects | R15m | Water | Bulk water pipeline & internal water reticulation | MIG | Number of households accessing potable clean drinkable water for the first time | 1. Site establishment - R2, 500,000.00 2. Reticulation pipeline laying - R10, 550,000.000 3. Earthworks - R1,100,000.00 4. Sundries - R850,000.00 | 10 |
| 2 | Greater Khilimoni (Ward 1) | To implement and upgrade water infrastructure projects | R20m | Water | Bulk water pipeline | MIG | Number of households accessing potable clean drinkable water for the first time | 1. Site establishment - R3, 500,000.00 2. Bulk pipeline laying - R11, 000,000.000 3. Earthworks - R4, 900,000.00 4. Sundries - R600,000.00 | 1 |
| 3 | Greater Nomandlovu Water Supply | To implement and upgrade water | R15m | Water | Gravity main pipeline | MIG | Number of households accessing | 1. Site establishment - R3,500,000.00 | 11 |

| | | | | | | | | | |
|-----------|---|--|--------|------------|-----------------------------|------|---|--|-----------|
| | | infrastructure projects | | | | | potable clean drinkable water for the first time | 2. Gravity main pipeline laying - R5,350,000.000 3. Earthworks - R1,000,000.00 4. Back-up generator - R4,500,000.00 5. Sundries - R650,000.00 | |
| 4 | Ingwe Household Sanitation Project | To ensure provision of sanitation | R11,9m | Sanitation | Installation of VIP Toilets | MIG | Number of households with dry sanitation | Installation of 1 320 VIP toilets - R11,900,000.00 | All wards |
| 6 | Underberg Bulk Water Supply Upgrade Phase 2 | To implement and upgrade water infrastructure projects | R5m | Water | Bulk Water Pipeline | MIG | Number of households accessing potable clean drinkable water for the first time | 1. Site establishment - R1,200,000.00 2. Rising main pipeline laying - R2,650,000.000 3. Earthworks - R900,000.00 4. Sundries - R250,000.00 | 3 |
| 18 | Bulwer Donnybrook Water Supply Scheme Project | To improve water supply in Ingwe and | R100m | Water | Bulk Water Supply | RBIG | Water Resource | 1. Site establishment - R10,000,000 | 3,4,2 |

| | | | | | | | | | |
|----|--------------------------------|--|--------|-------|------------|------|---|--|---|
| | | Ubuhlebezwe areas | | | | | Infrastructure Development | 2. Bulk pipeline laying - R40,000,000 3. Reinforced concrete - R15,000,000 4. Earthworks - R20,000,000 5. Water treatment plant - R15,000,000 | |
| 19 | Centocow/Mkhazini Water Supply | To implement and upgrade water infrastructure projects | R17.3m | Water | Bulk water | WSIG | Number of households accessing potable clean drinkable water for the first time | 1. Site establishment - R3,000,000 2. Reinforced concrete & earthworks - R9,000,000 3. Pipework - R5,300,000 | 4 |



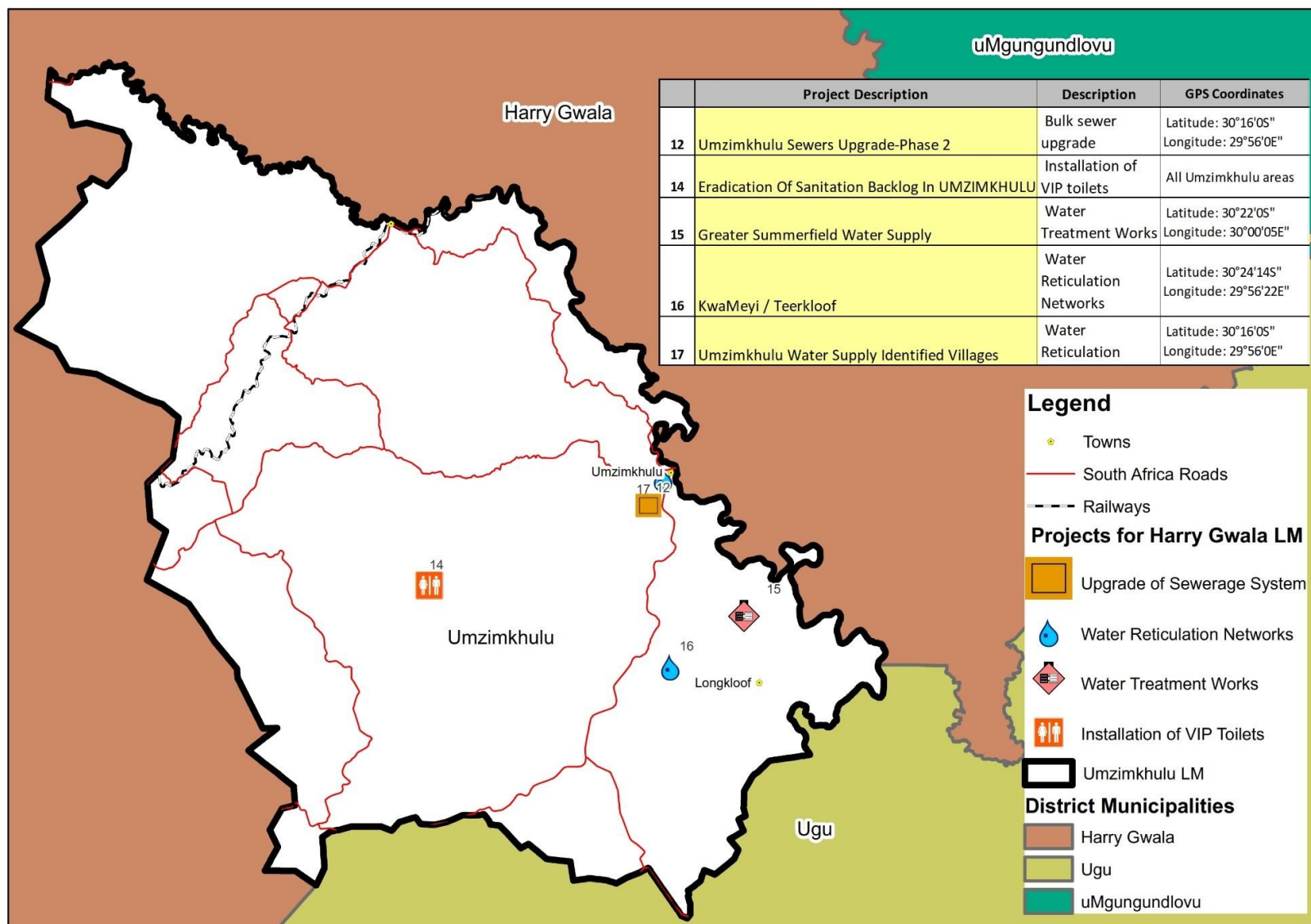
Map 50: Capital Development Plan for Dr Nkosazana Dlamini-Zuma

Illustrated in Table 49 below is the current and future projects within Umzimkhulu Local Municipality, which are depicted spatially on the Map below. Map 52 gives further details of the location of the water projects occurring in the various water projects in uMzimkhulu.

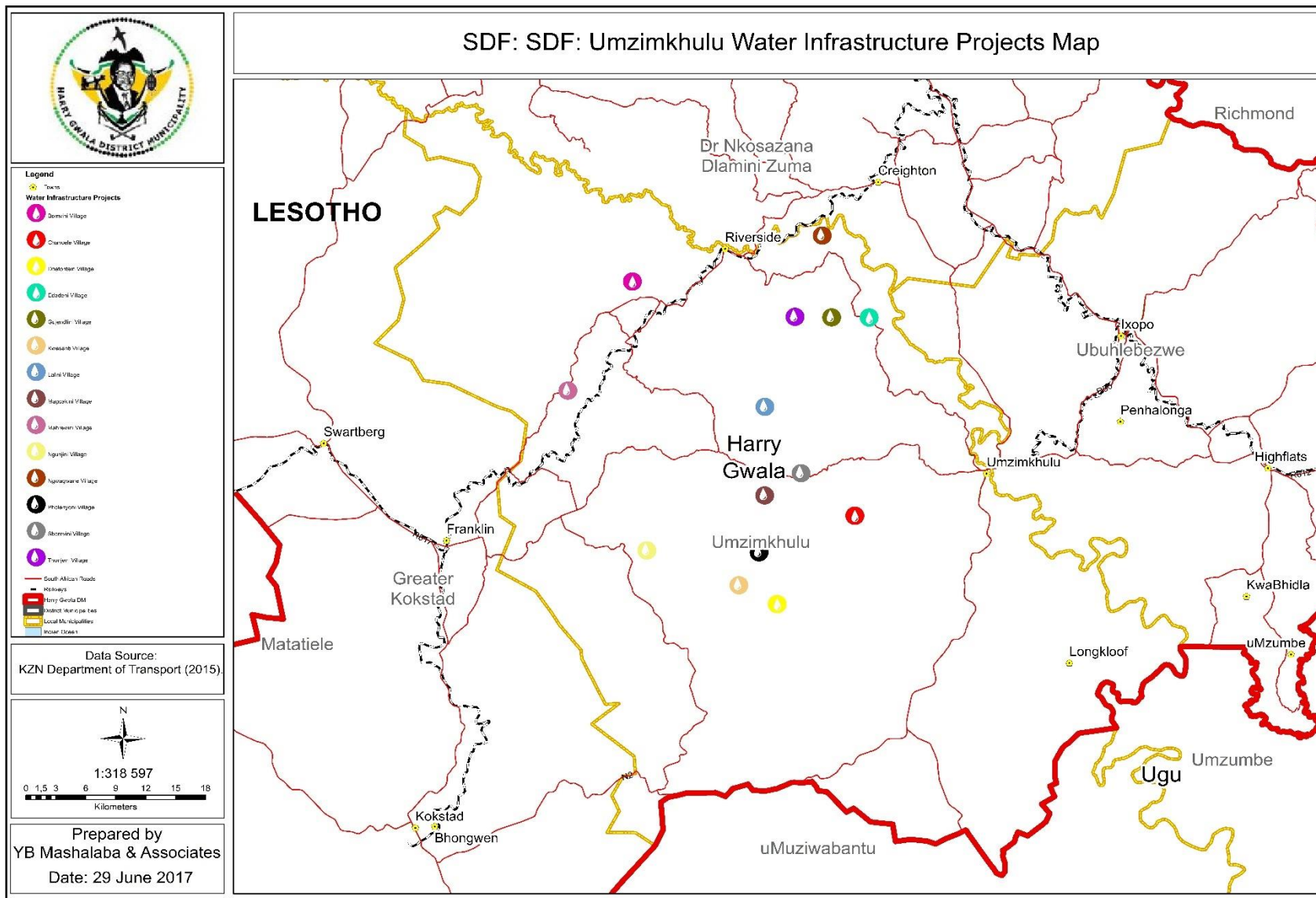
Table 49: Capital Investment Framework for Umzimkhulu

| | Project Description | Own Strategic Objective | Amount | Function | Description | Funding Source | KPI | Individual Project | Ward |
|----|---|--|----------|------------|-----------------------------|----------------|---|---|-----------|
| 12 | Umzimkhulu Sewers Upgrade- Phase 2 | To implement water borne sewer by 2016 | R12,643m | Sanitation | Bulk sewer upgrade | MIG | Number of households with water borne sanitation | 1. Design report - R3,000,000.00 2. Site establishment - R1, 500,000.000 3. Pump stations - 8,143,375.00 | 16 |
| 14 | Eradication Of Sanitation Backlog In UMZIMKHULU | To ensure provision of sanitation | R10m | Sanitation | Installation of VIP toilets | WSIG | Number of households with dry sanitation | Installation of 1 111 VIP toilets - R10,000,000 | All wards |
| 15 | Greater Summerfield Water Supply | To implement and upgrade water infrastructure projects | R28.2m | Water | Water Treatment Works | MIG | Number of households accessing potable clean drinkable water for the first time | 1. Site establishment - R3,500,000 2. Abstraction point - R9,000,000 3. Pipeline to Raw water storage dam - R8,200,000 4. Water treatment plant - R7,500,000 | 15 |

| | | | | | | | | | |
|-----------|---|--|------|-------|-----------------------------|------|---|---|----------|
| 16 | KwaMeyi / Teerkloof | To implement and upgrade water infrastructure projects | R15m | Water | Water Reticulation Networks | MIG | Number of households accessing potable clean drinkable water for the first time | 1. Reticulation pipelines & earthworks - R8,000,000 2. Communal standpipes - R7,000,000 | 11,13,14 |
| 17 | Umzimkhulu Water Supply Identified Villages | To implement and upgrade water infrastructure projects | R18m | Water | Water Reticulation | WSIG | Number of households accessing potable clean drinkable water for the first time | 1. Site establishment - R3,000,000 2. Drilling & equipping boreholes - R5,000,000 3. Pipelines & standpipes - R10,000,000 | 16 |



Map 51: Capital Development Plan of Umzimkhulu



Map 52: Water Projects in Umzimkhulu

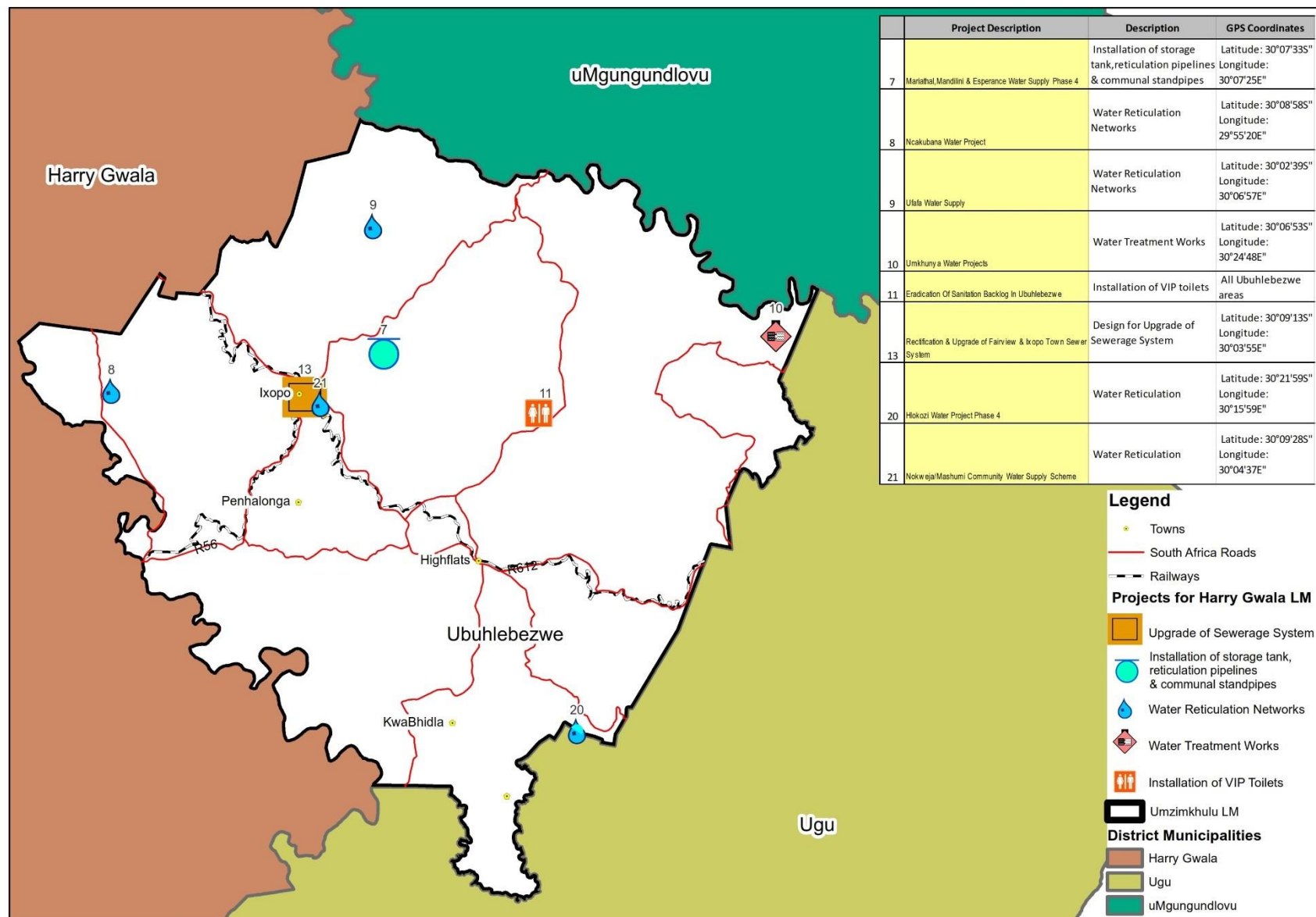
Depicted in Table 50 below is the current and future projects within Ubuhlebezwe Local Municipality, which are depicted spatially in Map 50.

Table 50: Capital Investment Framework for Ubuhlebezwe

| | Project Description | Own Strategic Objective | Amount | Function | Description | Funding Source | KPI | Individual Project | Ward |
|----------|--|--|--------|----------|--|----------------|---|---|-------|
| 7 | Mariathal,Mandilini & Esperance Water Supply Phase 4 | To implement and upgrade water infrastructure projects | R15,2m | Water | Installation of storage tank, reticulation pipelines & communal standpipes | WSIG | Number of households accessing potable clean drinkable water for the first time | 1. Site establishment - R942,482.00 2. Reticulation pipeline & Earthworks - R4, 897,960.00 3. Storage tank - R6,365,000.00 4. Communal standpipes - R620,000.00 5. Borehole equipping - R200,000.00 | 2 & 4 |
| 8 | Ncakubana Water Project | To implement and upgrade water infrastructure projects | R10m | Water | Water Reticulation Networks | MIG | Number of households accessing potable clean drinkable water for the first time | 1. Site establishment - R736,118.00 2. Pipelines & Earthworks - R7, 057,679.00 3. Concrete structures - R303,500.00 | 1 |

| | | | | | | | | | |
|-----------|--|--|--------|------------|-----------------------------|------|---|---|-----------|
| | | | | | | | | 4. Communal standpipes - R1,800,000.00 | |
| 9 | Ufafa Water Supply | To implement and upgrade water infrastructure projects | R15,9m | Water | Water Reticulation Networks | MIG | Number of households accessing potable clean drinkable water for the first time | 1. Site establishment - R1,430,000.00 2. Pipelines & Earthworks - R12,270,000.00 3. Pump house & equipment - R1,600,000.00 4. Communal standpipes - R600,000 | 3 |
| 10 | Umkhunya Water Projects | To implement and upgrade water infrastructure projects | R30m | Water | Water Treatment Works | MIG | Number of households accessing potable clean drinkable water for the first time | 1. Site establishment - R4,178,000.00 2. Reinforced concrete & Earthworks - R17,378,900.00 3. Pipework - R4,500,000.00 4. Sundries - R3,943,100.00 | 5 |
| 11 | Eradication Of Sanitation Backlog In Ubuhlebezwe | To ensure provision of sanitation | R8m | Sanitation | Installation of VIP toilets | WSIG | Number of households | Installation of 889 VIP toilets - R8,000,000 | All wards |

| | | | | | | | | | |
|-----------|---|--|-------|------------|---------------------------------------|------|---|--|----|
| | | | | | | | with dry sanitation | | |
| 13 | Rectification & Upgrade of Fairview & Ixopo Town Sewer System | To implement water borne sewer by 2016 | R5m | Sanitation | Design for Upgrade of Sewerage System | MIG | Number of households with water borne sanitation | 1. Detailed design report - R5,000,000.00 | 2 |
| 20 | Hlokozi Water Project Phase 4 | To implement and upgrade water infrastructure projects | R6m | Water | Water Reticulation | WSIG | Number of households accessing potable clean drinkable water for the first time | 1. Equipping borehole - R400,000 2. Pipelines & earthworks - R4,800,000 3. Communal standpipes - R800,000 | 6 |
| 21 | Nokweja/Mashumi Community Water Supply Scheme | To implement and upgrade water infrastructure projects | R8.5m | Water | Water Reticulation | WSIG | Number of households accessing potable clean drinkable water for the first time | 1. Site establishment - R1,000,000 2. Equipping boreholes - R700,000 3. Pipelines & earthworks - R5,300,000 4. Communal standpipes - R1,500,000 | 11 |

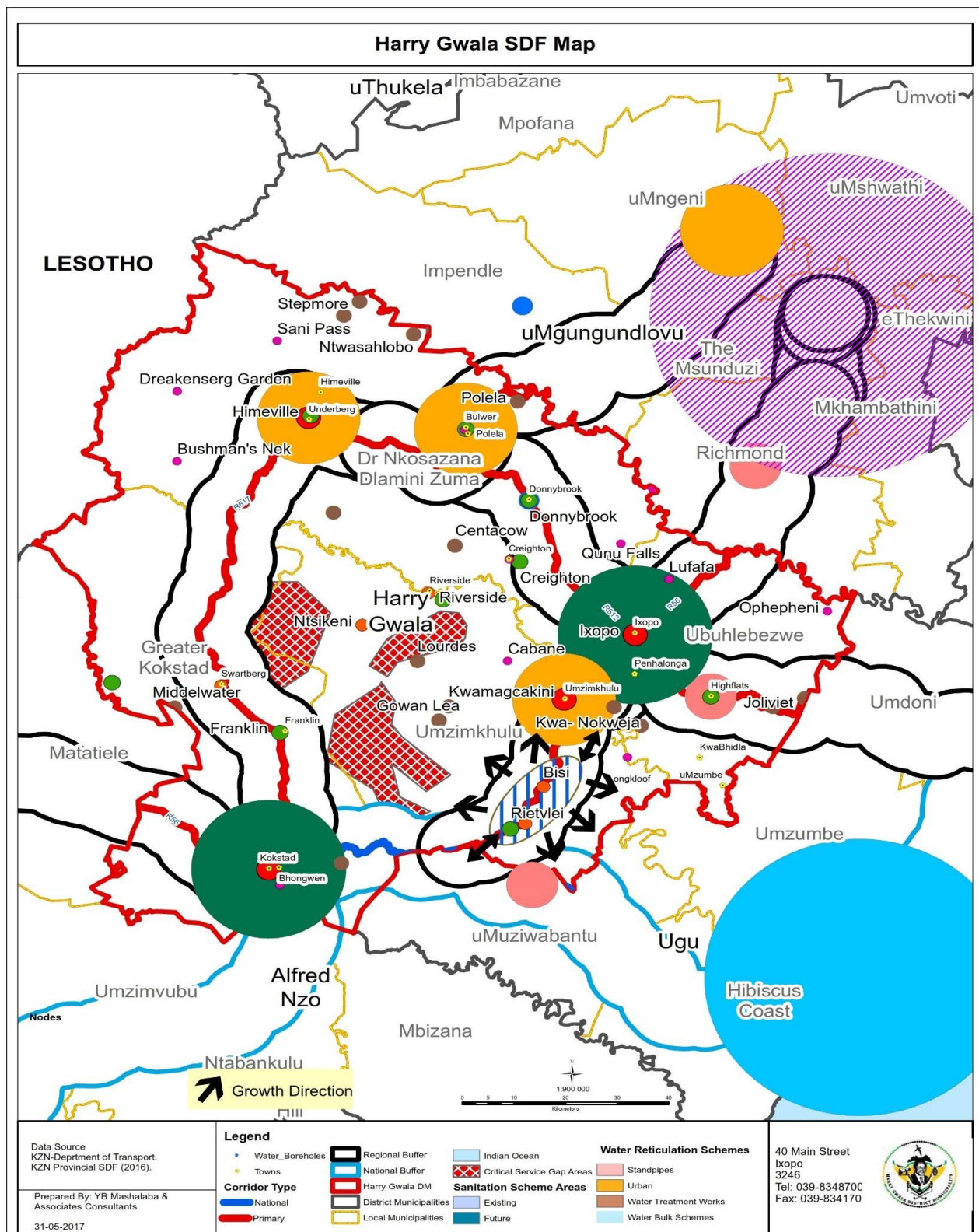


Map 53: Capital Development Plan for Ubuhlebezwe

9. HARRY GWALA SDF

The Harry Gwala SDF seeks to redress the previous imbalances, promote change, facilitate growth and development and mobilize support for the conservation of natural resources. The formulation of this SDF took into consideration relevant legislations and policies and is also aligned to different sector plans and integrated development plans of adjacent municipalities in order to formulate relations, particularly with municipalities which shares common borders with the Harry Gwala DM. This SDF is therefore a guideline which informs the SDF formulated by each local municipality under the Harry Gwala DM as well as municipalities outside the border. This is to ensure a holistic planning which can enhance better economic growth, infrastructure development and communication amongst all municipalities.

This SDF is therefore embedded to direct growth to the identified nodes and corridor. Notwithstanding the reduction of service gap areas, this SDF seeks to enhance the provision of adequate infrastructure, more particularly roads, as they are the main contributing factor which influence economic growth and development through the trade and the utilization of public transportation. Map 58 denotes the overall spatial targets and priorities for the Harry Gwala DM which can contribute vigorously in bringing about change in the rural and urban landscape of the entire District.



Map 54: Harry Gwala Spatial Development Framework

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