

MANDENI SPATIAL DEVELOPMENT FRAMEWORK



Planning for Sustainable Development

Developed in JUNE 2015

FINAL SDF 2017/18

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Revised by Mandeni Local Municipality

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ABBREVIATIONS:

AMAFA	-	KwaZulu Heritage Resources Act (Act No. 10 of 1997)
ANR	-	Amatikulu Nature Reserve
BAR	-	Basic Assessment Report
CARA	-	Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983)
CBD	-	Central Business District
CDP	-	Concept Development Plan
CHC	-	Community Health Centre
DAEARD	-	Department of Agriculture, Environmental Affairs and Rural Development
DM	-	District Municipality
DMR	-	Department of Mineral Resources
DWA	-	Department of Water Affairs
EMF	-	Environmental Management Framework
EMPR	-	Environmental Management Programme
GDP	-	Gross Domestic Product
Ha	-	Hectares
HH	-	House Holds
ICMA	-	Integrated Coastal Management Act (Act No. 24 of 2008)
IDP	-	Integrated Development Plan
IWMP	-	Integrated Waste management Plan
KZN	-	KwaZulu-Natal
KZNNCMA	-	KwaZulu-Natal Nature Conservation Management Act, 1997 (Act No. 9 of 1997)
LED	-	Local Economic Development
LM	-	Local Municipality
LUMS	-	Land Use Management System
MIG	-	Municipal Infrastructure Grant
ML	-	Mega Litre
NEMA	-	National Environmental Management Act, 1998 (Act 107 of 1998)
NEMBA	-	National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)
NEMPAA	-	National Environmental Management: Protected Areas Act 2003 (Act No. 57 of 2003)

NHRA	-	National Heritage Resources Act, 1999 (Act No. 25 of 1999)
NSDP	-	National Spatial Development Perspective
PDA	-	KZN Planning & Development Act, 2008 (Act 6 of 2008)
PGDS	-	Provincial Growth and Development Strategy
RDP	-	Reconciliation and Development Programme
ROD	-	Record of Decision
SDF	-	Spatial Development Framework
WTW	-	Water Treatment Works
WWTW	-	Waste Water Treatment Works

1 BACKGROUND & INTRODUCTION

2.3.4. Background to the Study

Municipalities are required to compile Spatial Development Frameworks (SDFs) as a core component of their Integrated Development Plans (IDPs) in terms of Section 26(e) of the Local Government Municipal Systems Act, 2000, Act 32 of 2000. In addition to this, the recently enacted Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013), requires municipalities to develop SDF's for its area of jurisdiction, and in Section 21 outlines aspects that needs to be addressed in the Spatial Development Framework.

The Mandeni Local Municipality intends compiling a Spatial Development Framework (SDF) (as part of the IDP) that will guide future development within the Municipality. The SDF will provide a good foundation for the municipality in the development of the municipality for the next five year term of Councillors' office and beyond. The SDF must have a set of objectives, strategies and policy guidelines that direct development and development options to ensure that the envisaged long-term urban and rural structure and target deliverables are realised. The SDF should find balance between Environmental sensitivity and Development pressures.

Section 28(1) of the Municipal Systems Act, (Act 32 of 2000) indicates that "each municipal council, within a prescribed period after the start of its elected term, must adopt a process set out in writing to guide the planning, drafting, adoption and review of its integrated development plan". In this regard, the SDF's generally require attention in the following areas:

- Alignment of the SDF with the IDP;
- Alignment of the SDF with:
 - The capital budget of the municipalities;
 - The SDF's of surrounding municipalities;
 - National and Provincial spatial planning initiatives;
 - Provincial Spatial Planning Guidelines.
- The identification of urban edges within municipalities in line with the Departments guidelines.
- Building of local economies;
- Regional resource conservation;
- Mapping all capital investment projects in the SDF e.g. infrastructure projects.

This report represents the second phase in the process, namely the Current Realities report, which will form the basis of analysis for the compilation of a spatial concept and the subsequent interventions and spatial development strategies.

The information in this report is presented in order to provide the municipality opportunity to confirm that the basis information from which the Spatial Framework is developed is correct and sufficient to make informed decisions.

The report considers the following:

- Areas Of Potential Intervention Identified
- Natural Resources
- Human Resources
- Social Resources
- Physical Resources
- Economic Resources

2.3.5. Delineation of the Study Area

The Mandeni Local Municipality is located on the east coast of KwaZulu-Natal and situated on the northern Boundary of the District Municipality, and shares a district boundary with uThungulu District Municipality. Please refer to **Map 1: Locality Plan**, and **Map 2: Regional Locality** for a depiction of the Municipal Area within the iLembe District Municipality.

The study area for this project will include the entire municipal jurisdiction area of the Mandeni Local Municipality.

The Mandeni Municipal area is approximately 545 km² in extent and consists of 18 wards with a total of 36 councillors. The Municipal Demarcation board has currently added another ward which is ward 18 around the IsiThebe industrial area (Vutha) due to the number of VD's. 49% of the municipality held under traditional tenure with the following aMakhosi Preside within the municipality:

- iNkosi uMhlongo
- iNkosi uMathonsi
- iNkosi uMcambi
- iNkosi uNgcobo

Although numerous rural settlements are scattered throughout the Municipality, the following areas have been identified as the main nodal areas.

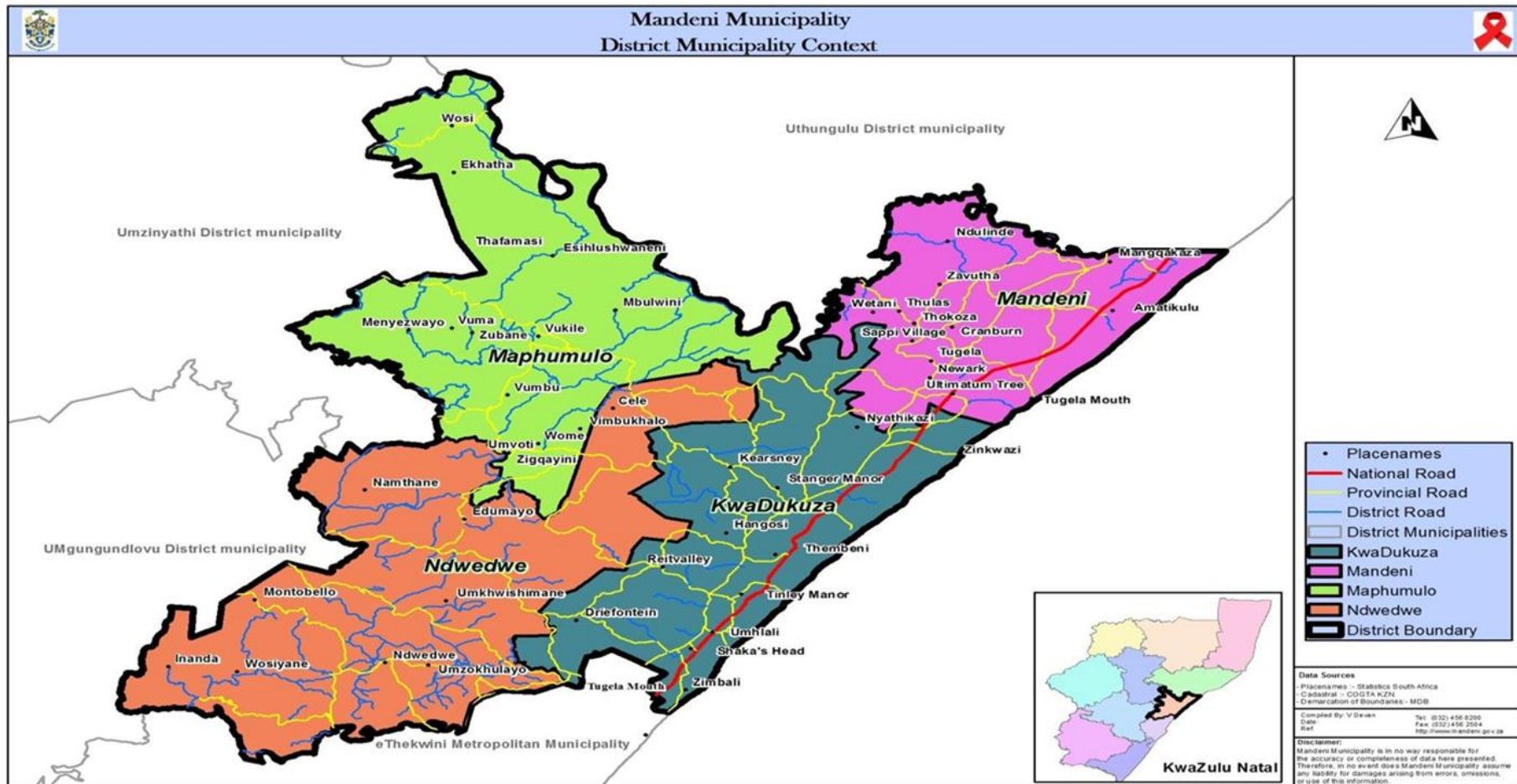
Table 1: Mandeni Nodal Areas & Settlements

Primary	Secondary	Activity Points	Industrial
Mandeni/ Sundumbili	Wangu Amatikulu Ohwebede Tugela Mouth	Nyoni	isiThebe

Source: Mandeni IDP 2017/18

Please refer to **Map 2: Contextual Map** for a Depiction of the Municipal Structure.

Map 1: Locality Plan within District



Source: Mandeni Municipality GIS

Mandeni Municipality
Municipal Context

Legend:

- Placenames
- N2
- R102
- Major Roads
- Rivers
- Traditional Authority
- Municipal Boundary

WardNo

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Data Sources

- Placenames - Statistics South Africa
- Alien Invasive Species Density - Working for Water
- Demarcation of Boundaries - MDB

Compiled By: Data Tel: (032) 456 8200 Fax: (032) 456 2504
Ref: HEP/2009/mandeni.gov.za

Disclaimer:
Mandeni Municipality is in no way responsible for the accuracy or completeness of data here presented. Therefore, in no event does Mandeni Municipality assume any liability for damages arising from errors, omissions, or use of this information.

MANDENI SPATIAL DEVELOPMENT FRAMEWORK: 2017/18

2 LEGISLATIVE COMPLIANCE

The preparation of Spatial Development Frameworks in South Africa is governed by a number of national legislative and policy directives which provide guidance to processes and content in order to produce credible and realistic development direction for municipalities. Among these are the National Constitution (1996), Comprehensive Rural Development Programme (2009), National Development Plan (2011) and Spatial Planning and Land Use Management Act (2013) to name the few.

2.1.1 The Constitution of the Republic of South Africa (Act No.108 of 1996)

The Constitution of the Republic of South Africa (Act 108 of 1996) in its desire for local government was conceived as “the local sphere of government with the constitutional mandate to carry out a number of developmental duties”. Chapter 7 of the Constitution states that it is the object of local government to “encourage the involvement of communities and community organizations in the matter of local government”. Local government must also promote the Bill of Rights, which reflects the nation's values about human dignity, equality and freedom, and uphold the principles enshrined in the Constitution. The Constitution of the Republic of South Africa (1996) mandates local government to promote and undertake the following tasks as outlined in figure below.

Figure 1: Constitutional Directives for Local Government

The Constitution (1996)				
Directives for Local Government				
Provide democratic and accountable government for local communities.	Ensure the provision of services to communities in a sustainable manner.	Promote social and economic development.	Promote a safe and healthy environment.	Encourage the involvement of communities and community organisations in the matters of local government.

Based on these Constitutional directives as shown in Figure 1 Mandeni Municipality has a responsibility to its area of jurisdiction, by addressing issues such as:

- Environmental Responses: uncontrolled expansion of settlements into environmentally sensitive areas which consequently has adverse effects on natural habitats, cultural landscapes and air and water quality will have to be addressed through appropriate policy and monitoring measures as part of enhancing the spatial quality of Mandeni.
- Efficient and sustainable infrastructure provision: basic services and infrastructure provisions should be undertaken within the premise of cost efficiency. Maintenance culture and social sustainability with

consideration for dire need areas, areas of potential productivity to aid in ploughing back benefits, without negating the efforts of achieving efficient public spending and investment.

- **Institutional Efficiencies:** in order to discharge its constitutional duties, Mandeni Municipality has a responsibility to ensure that systems of administration, finance management, accountability and community involvement are adequately functional to support activities of the Municipality and to the general public.
- **Local Economic and Social Development:** harnessing and finding new opportunities for socio-economic development is a key responsibility of local government through support from the provincial and national spheres of government. Mandeni will have to act proactively in this regard.

2.3.6. The Sustainable Development Goals

The United Nations realised noted some of the limitations and challenges associated with Millennium Development Goals in terms of achieving the objectives. The initial target for achieving most of the goals was in 2015, the United Nations developed Sustainable Development Goals (SDGs), with the main emphases of ending all the challenges as indicated in the seventeen goals and 169 targets that re to operationalize them. **Below are the 17 SDGs;**

1. End Poverty in all its forms everywhere
2. End Hunger, achieve food security and improved nutrition, and promote Sustainable Agriculture
3. Ensure Healthy lives and promote well-being for all at all ages
4. Ensure inclusive and equitable quality education and promote life-long learning opportunities for all

5. Achieve Gender equality and empower all women and girls
6. Ensure availability and sustainable management of water and sanitation for all
7. Ensure access to affordable, reliable, sustainable, and modern energy for all
8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
10. Reduce inequality within and among countries
11. Make Cities and human settlements inclusive, safe resilient and sustainable.
12. Ensure sustainable consumption and production patterns
13. Take urgent action to combat climate change and its impacts(in line with United Nations Framework Convention on Climate Change)
14. Conserve and sustainable use the oceans, seas and marine resources for sustainable development
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
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
17. Strengthen the means of implementation and revitalize the Global partnership for sustainable development

Although, each of these is assigned to a relevant government department or organ of state the implemented of all these goals demands a collective approach. . The section below outline these

principles by looking briefly the overview of the role and purpose of spatial planning, land use management and land development at a local level in addressing some of the SDGs and concludes with clear implications for the Mandeni Local Municipality.

2.3.7. National Policies / Legislation

2.1.2 State of the Nation Address 2017

The State of the Nation address delivered by the President in February 2017 emphasises the commitment by government in dealing with triple challenges facing the country: Poverty, Inequality and Unemployment. It therefore identified key focus areas and programmes that will be implemented by government for eradicating poverty, decreasing the levels of inequality and reducing unemployment. The key focus areas for the budget are listed below:

- Infrastructural Development
- Education
- Health
- Crime and corruption
- Rural development
- Land reform
- Ocean Economy: Operation Phakisa

The state of the Nation Address also acknowledges the major milestones that have been made by Government in dealing with poverty. However poverty, unemployment and inequality are still the major challenges facing our country. One of the interventions by government in dealing with unemployment and slow economic

growth is focusing in investing on public infrastructure such as road networks, rural development projects, etc.

In terms of the infrastructural enrolment programmes by National government the Mandeni Local Municipality through the SDF is identifying areas where the municipality will indirectly benefit from any of the projects that will be implemented by National or Provincial Departments.

2.1.3 COMPREHENSIVE RURAL DEVELOPMENT PROGRAMME (CRDP)

Mandeni Municipality has a very strong Rural Component with four Traditional Councils governing a large portion of the Municipality.

Subsequently there are a number of rural policies from the Department of Rural Development & Land Reform to be considered. Overarching to these strategies is the Comprehensive Rural Development Programme, which has as its aim the development of rural South Africa, to create vibrant, sustainable and equitable rural communities. The CRDP is different from past government strategies in rural areas due to its approach which focus on proactive participatory community-based planning rather than an interventionist approach to rural development.

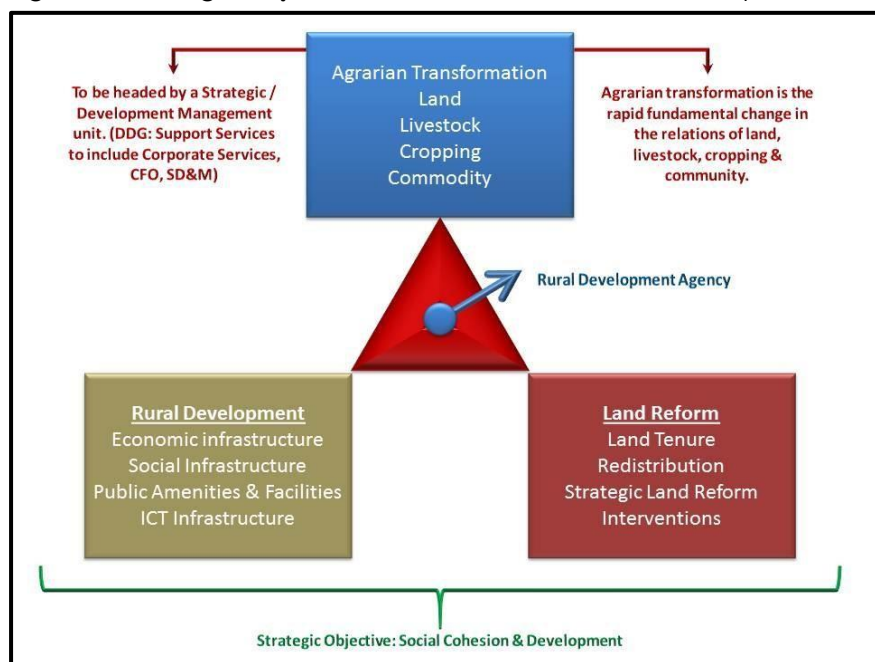
Through the policies to be implemented as part of the CRDP the following two main themes are present

- Agricultural Reform;
- Rural Development; and
- Land Tenure Reform;

National government envisages the rural development to be done through agrarian transformation, which implies the rapid and fundamental change in the relations (systems and patterns of ownership and control) of land, livestock, cropping and the communities. The strategic objective of this approach is "social cohesion and Development".

The diagram below depicts the relationship between the components of the Comprehensive Rural Development Programme, what aspects needs to be addressed under each component, and how they should interact to reach the strategic goal of Social Cohesion on the Rural Areas.

Figure 2: Strategic objective: Social cohesion and development



It must be noted that this is only a strategy, which differs in its approach from the NSDP in the sense that it does not make reference to specific areas/municipalities, or prescribe what actions needs to be taken within specific municipalities. It merely outlines the aspects that must be addressed to ensure the comprehensive development of rural areas.

Not all aspects as listed under the three components (e.g. land redistribution/restitution), are applicable to the development of a Spatial Development Framework, as the SDF is a planning tool that focuses on land use irrespective of the ownership. Redistribution for example is a political aspect/tool which focuses on land ownership, and more specific the ownership of agricultural land.

The aspects that are applicable to land use, includes items such as Economic & Social Infrastructure, Public Amenities and the protection of agricultural land and activities. The Spatial Development Framework will be the tool that ensures the future development of the rural Municipalities by providing direction on the provision of facilities, and identifying economic catalytic projects which will kick-start the development and exponential growth of the rural communities in all areas that is deemed as being part of a vibrant community.

2.1.4 National Development Plan Vision for 2030

The NDP 2030 presents a long-term vision for South Africa and addressed the Governments programme to "attack" poverty and deprivation with the aim of nation building.

The NDP diagnostic report has identified 9 core challenges that require urgent attention:

- Too few people work
- The standard of education for most black learners is of poor quality
- Infrastructure is poorly located, under maintained and insufficient to foster higher growth.
- Spatial patterns exclude the poor from the fruits of development
- The economy is overly and unsustainably resource intensive
- A widespread disease burden is compounded by a failing health system.
- Public services are uneven and often of poor quality.
- Corruption is widespread
- South Africa remains a divided society.

The vision highlights a number of focus areas, which are also, in its broader context relevant to an SDF. They are:

- **The economy and employment:** This requires creating an environment for sustainable employment and economic growth. These conditions may be created through the identification of key economic sectors as well as the key challenges that affect the efficiency of these sectors such as transport, lack of facilities and infrastructure. Spatial alignments will also be required in order to deal with the impending problems that affect economic growth and levels of employment. This is also directly linked to the economic infrastructure focus area.
- **Economic infrastructure:** There is an unequal distribution of economic infrastructure which therefore increases regional inequalities. The SDF is a key tool in achieving sustainable and inclusive growth as it can identify the key infrastructural needs, direct investment and allocation of key resources such water and energy (electricity). Dealing with infrastructural sustainability also requires putting in place an effective and efficient transport

system, thus creating an environment where there is an affordable, safe and reliable transport system.

- **An inclusive rural economy:** The NDP identifies the need for rural communities to have greater opportunities to participate fully in the economic, social and political life of the country. Rural communities therefore have a great need for basic infrastructure as well increasing the economic growth through agriculture and tourism. Agriculture is a land intensive activity and the identification and protection of agricultural land from development is a high priority as this also has a direct impact on the food security. The SDF is therefore one of the key documents that can assist in the accomplishment of this vision.
- **Human settlements:** This element deals with eradicating the dysfunctional settlement patterns and weak spatial planning. Dealing with sustainable human settlements requires a number of considerations such as transport links, economic opportunities, preserving environmentally sensitive areas and availability of social facilities.

The National Development Plan is therefore a key policy document in the compilation of the Mandeni SDF as it identifies key issues as well as the strategies that may be implemented to effectively deal with those challenges.

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

The main objective of the Spatial Planning and Land Use Management Act (No. 16 of 2013) is "to provide a framework for spatial planning and land use management and to specify the relationship between the spatial planning and land use management systems and other kinds of

planning...” The preparation of the Mandeni Local Municipality SDF is guided by Section 21 of SPLUMA (Chapter 4, Part E) which stipulates the content of municipal spatial development frameworks. It also provides five main principles which are outlined below as:

- **Spatial Justice:** in which past spatial and other development imbalances are redressed through improved access to and use of land; Spatial Development Frameworks and policies at all spheres of government address the inclusion of persons and areas that were previously excluded, with an emphasis on informal settlements, former homeland areas and areas characterized by widespread poverty and deprivation; spatial planning mechanisms, including land use schemes, include provisions that enable redress in access to land and property by disadvantaged communities and persons; land use management systems are inclusive of all areas of a municipality and specifically include provisions that are flexible and appropriate for the management of disadvantaged areas, informal settlements and former homeland areas; land development procedures will include provisions that accommodate access to secure tenure and the incremental upgrading of informal areas; and where a planning tribunal considers an application before it, the planning tribunal's exercise of discretion may not be impeded or restricted on the ground that the value of land or property is affected by the outcome of the application.
- **Spatial Sustainability:** ensures that special consideration is given to the protection of prime and unique agricultural land; uphold consistency of land use measures in accordance with environmental management instruments; promote and stimulate the effective and equitable functioning of land markets; consider all current and future costs to all parties for the provision of infrastructure and social services in land developments; promote

land development in locations that are sustainable and limit urban sprawl; and result in communities that are viable;

- **Efficiency:** which ensures that land development optimises the use of existing resources and infrastructure; decision-making procedures are designed to minimise negative financial, social, economic or environmental impacts; and development application procedures are efficient and streamlined and timeframes are adhered to by all parties;
- **Spatial Resilience:** to promote flexibility in spatial plans, policies and ensure that land use management systems accommodate sustainable livelihoods in communities most likely to suffer the impacts of economic and environmental shocks; and;
- **Good Administration:** All spheres of government ensure an integrated approach to land use and land development that is guided by the spatial planning and land use management systems as embodied in this Act; no government department may withhold their sector input or fail to comply with any other prescribed requirements during the preparation or amendment of Spatial Development Frameworks; The requirements of any law relating to land development and land use are met timeously; the preparation and amendment of spatial plans, policies, land use schemes as well as procedures for development applications, to include transparent processes of citizen participation and all parties to have the opportunity to provide inputs on matters affecting them; and Policies, legislation and procedures must be clearly set out and inform and empower citizens.

Also required by Chapter 5, Section 24(1) of the Act for land use management is the requirement for all municipalities to have a single scheme within five years of its commencement.

2.1.6 National Government Outcomes

In January 2010 the South African government through a Cabinet meeting adopted 12 outcomes within which to frame public service delivery priorities, they have since been revised into 14 National outcomes. Each outcome has a limited number of measurable outputs and sub outputs as well as clear targets for each of those desired outputs.

These are the 14 National Outcomes as per the Medium Term Strategic Framework;

- 3 Quality Basic education
- 4 A long and healthy life for all South Africans
- 5 All people in South Africa are and feel safe
- 6 Decent employment through inclusive growth
- 7 Skilled and capable workforce to support an inclusive growth path
- 8 An efficient, competitive and responsive economic infrastructure network
- 9 Comprehensive rural development
- 10 Sustainable Human Settlements and improved quality of household life.
- 11 Responsive, accountable, effective and efficient development local government system.
- 12 Protect and enhance our environmental assets and natural resources
- 13 Create a better South Africa, contribute to a better and safer Africa and a better world
- 14 An efficient, effective and development oriented public service
- 15 An inclusive and responsive social protection system

16 Transforming society and uniting the country.

One of the main focuses in terms of the Municipal SDF in relation to National Government Outcomes is:

1. **Outcome 9:** focuses on “A response and, accountable, effective and efficient local government system”.
2. **Outcome 10:** focuses on Protect and enhance our environmental assets and natural resources.

The above outcomes formed the foundation in the development of the SDF and in ensuring alignment and achievement of National goals. The seven desired outcomes are integral to the preparation of the Mandeni SDF.

16.1.1 Industrial Policy Action Plan 2014/2015 – 2016/2017

The IPAP is informed by the National Development Plan vision of an equitable society and constitutes a key pillar in the perspectives set out in the New Growth Path. Its core objectives remain as set out in the National Industrial Policy Framework of August 2007:

- To facilitate diversification beyond our current reliance on traditional commodities and non-tradable services. This requires the promotion of increased value-addition characterised particularly by movement into non-traditional tradable goods and services that compete in export markets as well as against imports.
- The long-term intensification of South Africa's industrialisation process and movement towards a knowledge economy.
- The promotion of a more labour-absorbing industrialisation path with a particular emphasis on tradable labour-absorbing goods

and services and economic linkages that catalyse employment creation.

- The promotion of a broader-based industrialisation path characterised by the increased participation of historically disadvantaged people and marginalised regions in the mainstream of the industrial economy.
- Contributing to industrial development on the African continent, with a strong emphasis on building its productive capacity.

The IPAP recognises the dynamic and non-static nature of the economy. Its programmes therefore reflect a continuing process of response to the readjustments to the changing environment. It further takes into consideration the unique elements that determine the economic efficiency of the different economic sectors and different geographical areas.

The IPAP identifies key intervention areas that will be contemplated throughout the 2014/2015 period. The aim of these intervention areas is to put in place an integrated set of solutions that will directly deal with the major problems that are facing the current South African economic structure. In order to achieve its key objectives the IPAP has identified key areas of intervention:

- Economy-wide: this involves a pursuit of a stronger articulation of macro and micro economic policies, stronger alignment of industrial policies and programmes with investment and export promotion programmes. It further involves better alignment to general and specific sector strategies.
- Procurement: it focuses on maintaining a sustained effort to secure compliance with existing public procurement policies

and strategic supplier development /sourcing measures with the overall aim of supporting the manufacturing sector to raise domestic production and increase employment.

- Industrial finance: Industrial finance requires stronger alignment and progressive strengthening of industrial financing across all Development Finance Institutions (DFI's).
- Developmental Trade Policy: This focuses on the key components that will strengthen developmental trade policy.
- Competition Policy: This aims to combat anti-competitive and collusive behaviour which should then have a ripple positive effect by lowering the cost of procurement to the national fiscus and of wage goods to working families.
- Regulation and Intellectual Property: This involves striking a balance between encouraging incremental innovations, providing protection for indigenous knowledge and providing enough incentives for innovators to make the necessary research and development investments.
- Innovation and Technology: New policies and programmes to ramp up competitive capabilities in the production and services sectors of the economy.

IPAP further identifies key economic sectors that have the potential to contribute to economic growth and development. It identifies the key challenges that may hinder growth in these sectors and the key programmes aimed at boosting and increasing their economic contributions including milestones to monitor the progress of implementation of the strategy.

IPAP is based on the need for sustainable, long-term development that is underpinned by higher growth, exports and labour-intensive,

value-adding economic activity in the production sectors, led by manufacturing. The current IPAP is informed and aligned to the National Infrastructure Plan currently being implemented. It is an infrastructure building programme aimed at boosting industrial development and unblocking critical bottle necks will contribute to providing industrial and economic potential priority areas for the Mandeni SDF.

16.1.2 New Growth Path

The aim of the New Growth Path for South Africa is to knit together the Industrial Policy Action Plan (IPAP) as well as policies and programmes in rural development, agriculture, science and technology, education and skills development, labour, mining and beneficiation, tourism, social development and other areas.

The strategy followed by the New Growth Path includes:

- Identifying areas where employment creation is possible on a large scale as a result of substantial changes in conditions in South Africa and globally.
- Developing a policy package to facilitate employment creation in these areas, above all through:
 - i. A comprehensive drive to enhance both social equity and competitiveness;
 - ii. Systemic changes to mobilise domestic investment around activities that can create sustainable employment; and

- iii. Strong social dialogue to focus all stakeholders on encouraging growth in employment-creating activities.

Job Drivers need to facilitate the creation of employment opportunities. It is thus necessary to develop new approaches to strengthen the job drivers which are:

- **Job Driver 1:** Infrastructure.
 - Maintenance of spending plans
- **Job Driver 2:** Main economic sectors.
 - Agricultural value chain
 - Mining value chain
 - Manufacturing
 - Tourism & High-level services
- **Job Driver 3:** Seizing the potential of new economies.
 - The Green Economy
 - Growing the Knowledge Economy
- **Jobs Driver 4:** Investing in social capital and public services.
 - The Social Economy
 - The Public Sector
- **Jobs Driver 5:** Spatial development.
 - Rural Development
 - African Regional Development

While urbanisation will continue, a significant share of the population will remain in rural areas, engaged in the rural economy. Government need to step up efforts to provide public infrastructure and housing in rural areas, both to lower the costs of economic activity and to foster sustainable communities.

In order for the job drivers to be successful and accordingly developed three strategies/approaches were developed to support the drivers. These strategies are called development packages, which entails the following:

- **Macro-Economic Package:** Careful balancing of more active monetary policy interventions to achieve growth and job targets.
- **Microeconomic Package:** Targeted measures to control inflationary pressures and support competitiveness and increased equity through ten programmes:

1. Active Industrial Policy	6. BBEE
2. Rural Development Policy	7. Labour Policies
3. Competition Policy	8. Technology Policy
4. Stepping up Education and skills development	9. Developmental Trade Policy
5. Enterprise development	10. Policies for African Development
- Stakeholder commitments: National consensus on wages, prices and savings.

16.1.2.1 Implications on local

The new growth path must aim to break the spatial challenges introduced by the Apartheid Era through the identification of areas for focused investment in infrastructure, and the identification of viable and sustainable opportunities for historically disadvantaged regions.

Rural development will always be dependent on road network links with main urban areas in order to grow and become sustainable for example linking the primary node with rural areas. Infrastructural linkage is very important in ensuring that we realised this objective, hence the Mandeni SDF has welcomed the construction of D888 road passing the rural service node by the Provincial Government.

A spatial economic strategy will indicate how the jobs drivers affect different provinces, municipalities and rural areas, linking in to the rural development strategy and industrial policies. The purpose of a spatial development framework at the Municipal Level will entail identification of the unique aspects provided by the Mandeni municipal area to develop the job drivers.

2.3.8. Provincial Policies

16.1.3. State of the Province Address 2017

The 2017 State of the Province Address (SOPA) emanates from the State of the Nation's Address which was delivered by President Jacob Zuma. In highlighting the priorities set by the National Development Plan, SOPA is based on the theme, "Moving forward with speed, ensuring a better quality of life for all". Whilst acknowledging the strides of development during 22 years of democracy, the Premier outlined five key priorities for the province as part of the Province's commitment to the priorities of the National Development Plan which include the following:

The key priority areas that the State of Province Address 2017 has identified for the next five years include the following:

- Creation of more jobs, decent work and sustainable livelihoods for inclusive growth: The province acknowledges the creation of jobs through investments in strategic infrastructure to unlock economic opportunities in which most will be driven in the implementation of the Strategic Integrated Projects. The SDF need to take into account improvement in infrastructural development of the municipality to unlock the economic opportunities that exist in municipality.
- Rural development, land reform and food security: Through the Rural Development Programme the Province is aiming at improving the livelihoods of the rural communities through expansion of rural development programmes to ensure sustainability. This includes empowering rural communities to move from limited subsistence and food security activities to gain access to the formal economy. The SDF calls for investments in the agricultural sector in which the rural agricultural land need to be well- maintained in order to draw in investments that will put forward adaptation of proper food systems required to improve the municipal food security.
- Education: The province aims at delivering professional management and relevant teacher support programme which will include the expansion and improvement of tertiary education and training system. Although there are a sufficient number of schools in the municipal area, it does not indicate that the condition of those education facilities is up to standard. There province has identified the need for infrastructural improvement in the province.
- Health: The province aims at expanding facilities and training of health professionals. The province was generally characterised by a need for the overhaul of infrastructure, upgrades of existing

facilities as well as construction of new facilities. The Mandeni Municipal area is one of the areas that have been well serviced in terms of health facilities; however, there are some areas that may need attention. The Mandeni SDF will identify these areas in order to ensure equal distribution of these health services.

- Fighting crime and corruption: Over the next five years, the province has aimed at seeing better policing which is the engine room of safety and crime-prevention in the Province.

16.1.4 KwaZulu-Natal Provincial Spatial Economic Development Strategy

The KwaZulu-Natal Spatial Economic Development Strategy (PSEDS) was formulated in 2007 as a spatial economic assessment of the areas of need and potential within the province. The PSEDS is intended as a guide to service delivery within the cluster to achieve the goals set in ASGI-SA to halve poverty & unemployment by 2014.

The PSEDS is built on the principles of the National Spatial Development Strategy (NSDP), namely:

Principle 1: Rapid economic growth that is sustained and inclusive as a prerequisite for the achievement of poverty alleviation;

Principle 2: Fixed investment should be focused in localities of economic growth or economic potential;

Principle 3: Where low economic potential exists investments should be directed at projects and programmes to address poverty and the provision of basic services in order to address past and current social inequalities;

Principle 4: Future settlement and economic development opportunities should be channelled into activity corridors and nodes that are adjacent to or link the main centres;

Four key sectors have been identified as drivers of economic growth in the KwaZulu-Natal Province, namely:

- The Agricultural sector (including agri-processing and land reform)
- The Industrial sector (Including Manufacturing)
- The Tourism sector
- The Service sector (including government services)

The logistics and transport sector (including rail) in the services sector are important sub-sectors underpinning growth in all four sectors. Sustainable and affordable water and energy provision is crucial to the economic growth & development of the province. A classification of potential for the entire province and as it relates to Mandeni Municipality is shown in the following discussion and maps.

The PSEDs sets out to: Focus where government directs its investment and development initiatives; capitalize on complementarities and facilitate consistent and focused decision making; bring about strategic coordination, interaction and alignment;

The PSEDs recognises that: Social & economic development is never uniformly distributed; apartheid created an unnatural distortion of development and this distortion must be addressed. The PSEDs has been developed in order to achieve the objectives of ASGISA within the framework of the NSDP and aims to achieve the following:

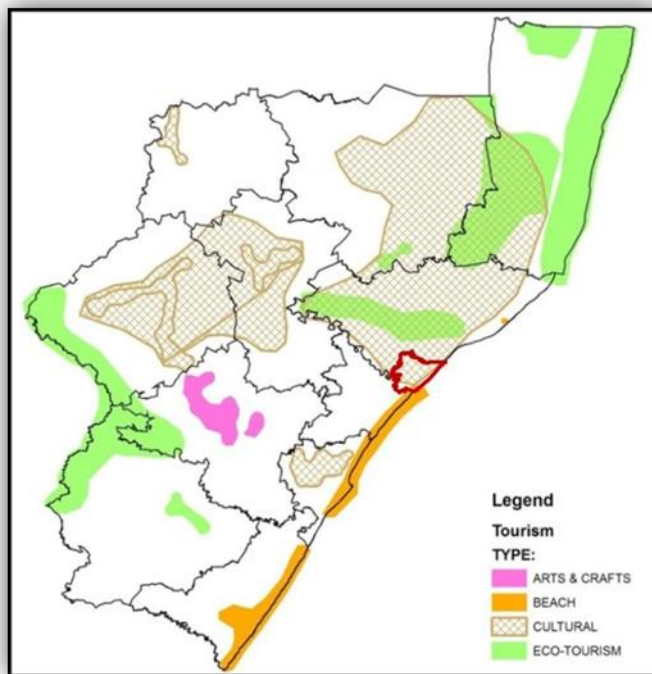
• Eradication of extreme poverty and hunger; • Promotion of gender equality & empowerment of women; • Reduction in child mortality; • Improvement of maternal health; • Combating HIV-AIDS, malaria and other diseases; • Ensuring environmental sustainability; • Developing a global partnership for development;	• Sustainable governance and service delivery; • Sustainable economic development and job creation; • Integrating investment in community infrastructure; • Developing human capability; • Developing comprehensive response to HIV-AIDS; • Fighting poverty & protecting vulnerable groups in society.
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The PSEDs prescribed that Mandeni can achieve some of its economic and financial needs by focussing on Industrial Sector and Service Industry.

16.1.4.1.1 INDUSTRY

Existing Industrial areas in Mandeni could make significant contributions to industrial development at a provincial scale and have therefore been identified for major industrial regeneration, as depicted on the above image.

Figure 3: PSEDs Industrial Comparative Advantage

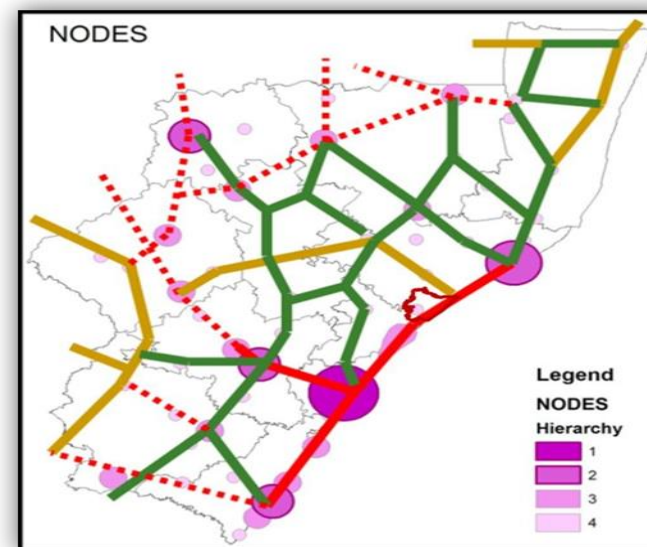


Source: KZN PSEDs

16.1.4.2 Tourism

The below image illustrates areas within KZN identified as areas with large impact tourism opportunities. The coastal corridor of iLembe can contribute significantly towards beach tourism, with areas north of Mandeni contributing towards cultural tourism. Dokodweni Beach has received blue flagship status therefore opening up great opportunities for the Tourism sector in Mandeni and iLembe district as a whole.

Figure 4: PSEDs Tourism Comparative Advantage

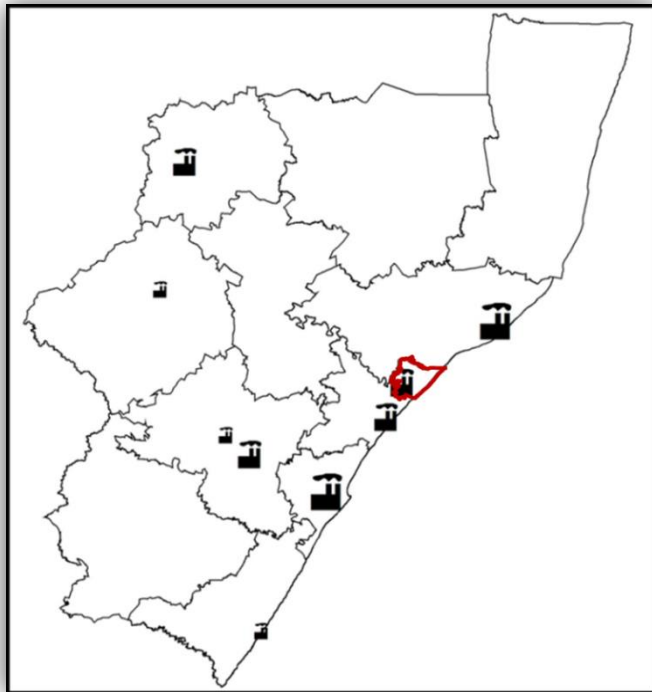


Source: KZN PSEDs

16.1.4.3 Nodes & Corridors

Mandeni has been identified as a quaternary node which should offer services to the local economy and community needs.

Figure 5: PSEDs Nodes & Corridors

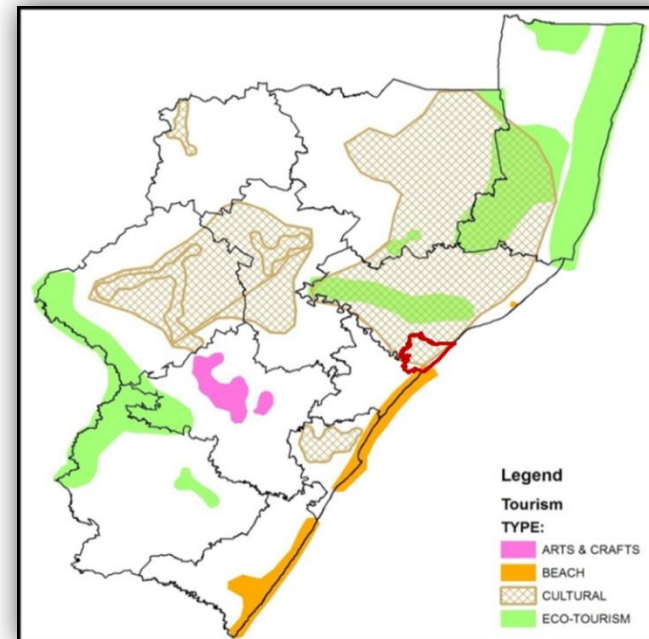


Source: KZN PSEDs

16.1.4.4 Agriculture

Although Mandeni has some good potential agricultural land, it is not identified as a municipality that can contribute to the Provincial Economy in the Agricultural Sector.

Figure 6: PSEDs Agricultural Comparative Advantage

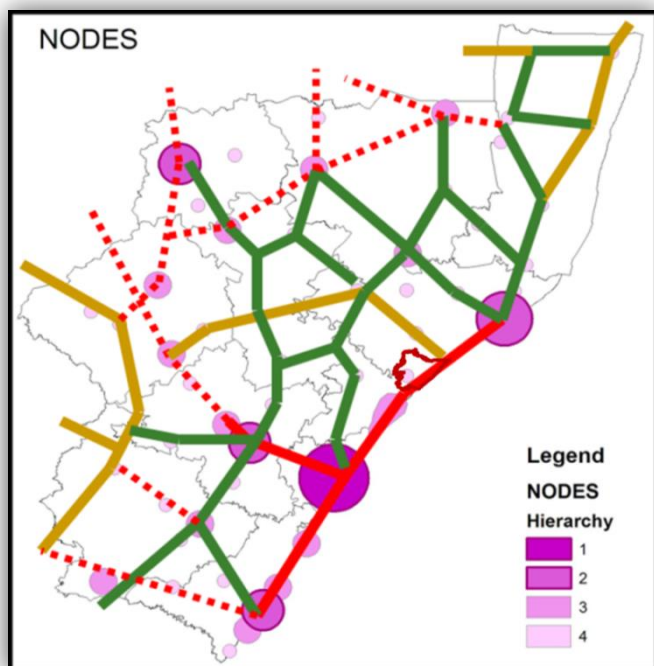


Source: KZN PSEDs

16.1.4.5 Poverty

The larger part of the Municipality is not classified as poverty stricken. There are however areas that requires social intervention. These areas are aligned with the locality of the Traditional Authority Areas as well.

Figure 7: PSEDs Poverty Regions



Source: KZN PSEDs

16.1.5 Provincial Growth and Development Strategy

The proposed interventions of the SDF should be aligned with the provisions of the KwaZulu-Natal Growth and Development Strategy, where the Strategic Goals have spatial manifestations. The PGDS is a key provincial tool in achieving the vision as set out in the National policy. The 2011 KwaZulu-Natal Provincial Growth and Development Strategy (PGDS) is a primary strategy for KwaZulu-Natal intended to drive growth and development in the Province, premised on a 2030 vision. It provides the province with a strategic framework for accelerated and shared economic growth through catalytic and developmental interventions, within a coherent equitable spatial development architecture; putting people first, particularly the poor and vulnerable; and building sustainable communities, livelihoods and living environments. The policy also put its focus on the provision of infrastructure and services, restoring the natural resources, public sector leadership, delivery and accountability, ensuring that these changes are responded to with resilience, innovation and adaptability. The PGDS encompasses nine spatial principles which are considered critical to the Mandeni SDF as reflected in figure 8 below.

Figure 8: Spatial Principles



Source: KwaZulu-Natal Spatial Development Framework (2011)

The PGDS goals and objectives are aimed at ensuring that the growth and development is people orientated. It further ensures that any form of development takes into consideration the different facets of society, such as the social, spatial, economic and environmental considerations in order to create sustainable development. The SDF must therefore be aligned with both the strategic goals and objectives as set out in the PGDS:

- Goal 1: Job Creation;
- Goal 2: Human Resource Management;
- Goal 3: Human & Community Development;
- Goal 4: Strategic Infrastructure
- Goal 5: Response to Climate Change;
- Goal 6: Governance & Policy;
- Goal 7: Promote Spatial Concentrations

The PGDS notes that in order for the strategy to reach its full potential and desired vision of equitable and sustainable development, all spheres of government must commit to the following:

- The implementation of catalytic projects and interventions.
- Effective participation in the institutional implementation framework
- The incorporation of the strategic goals and objectives in their priorities and programmes.
- The reporting of progress and;
- The provision and allocation of the required support and resources.

The SDF is therefore an imperative tool in ensuring that Mandeni Municipality is reaching the set goals of the PGDS.

Figure 9: PGDS Strategic Goals and Objectives

LISTING OF STRATEGIC GOALS + OBJECTIVES		
STRATEGIC GOAL	No	STRATEGIC OBJECTIVE
1 JOB CREATION (19)	1.1	Unleash Agricultural Potential (4)
	1.2	Enhance Industrial Development through Trade, Investment & Exports (7)
	1.3	Expand Government-led Job Creation Programmes (2)
	1.4	Promote SMME, Entrepreneurial and Youth Development (3)
	1.5	Enhance the Knowledge Economy (3)
2 HUMAN RESOURCE DEVELOPMENT (11)	2.1	Improve Early Childhood Development, Primary and Secondary Education (6)
	2.2	Support Skills alignment to Economic Growth (3)
	2.3	Promote and Enhance Youth Skills Development & Life-Long Learning (2)
3 HUMAN AND COMMUNITY DEVELOPMENT (33)	3.1	Alleviate Poverty and Improve Social Welfare (5)
	3.2	Enhance Health of Communities and Citizens (5)
	3.3	Safeguard Sustainable Livelihoods & Food Security (8)
	3.4	Sustain Human Settlements (3)
	3.5	Enhance Safety & Security (4)
	3.6	Advance Social Cohesion (3)
	3.7	Promote Youth, Gender and Disability Advocacy & the Advancement of Women (5)
4 STRATEGIC INFRASTRUCTURE (20)	4.1	Develop Ports and Harbours (8)
	4.2	Develop Road & Rail Networks (5)
	4.3	Develop ICT Infrastructure (2)
	4.4	Improve Water Resource Management (4)
	4.5	Develop Energy Production Capacity (1)
5 RESPONSES TO CLIMATE CHANGE (15)	5.1	Increase Productive Use of Land (3)
	5.2	Advance Alternative Energy Generation (3)
	5.3	Manage pressures on Biodiversity (6)
	5.4	Manage Disaster (3)
6 GOVERNANCE AND POLICY (16)	6.1	Strengthen Policy, Strategy Coordination and IGR (7)
	6.2	Build Government Capacity (4)
	6.3	Eradicate Fraud & Corruption (2)
	6.4	Promote Participative, Facilitative & Accountable Governance (3)
7 SPATIAL EQUITY (10)	7.1	Promote Spatial Concentration (4)
	7.2	Facilitate Integrated Land Management & Spatial Planning (6)

Source: PGDS 2011

2.3.9.1. OBJECTIVES

The iLembe District Municipality recognised the need and the gap that exist in the implementation and alignment of National Legislations/Policy at the Local Level. Thus the iLembe District developed an iLembe District Growth and Development Plan to address some of these issues and also to provide a guideline when it comes to development within iLembe District Municipality. **The objectives of the DGDP are to;**

- To translate the Provincial Growth and Development Strategy and Plan into a detailed implementation plan at a district level, inclusive of a detailed activity-level framework with targets and responsibilities assigned to the appropriate local municipality and government departments. In turn, across all districts, this will enable the province to measure its progress in achieving the accepted growth and development goals.
- In alignment with the provincial-level a major focus is placed on the interventions identified in the PGDS-PGDP, the DGDP has proposed specific milestones that will have to be achieved by various sector departments in the municipal space. This will be refined in a collaborative approach with the relevant stakeholders – provincial sector departments and state-owned enterprises to ensure ownership of targets that will be set for specific time horizons. The KwaZulu-Natal Provincial Planning Commission will facilitate and support the lead provincial departments to develop these detailed trajectories to ensure that the roadmap is absolutely clear on what is required to achieve the 2030 Vision for KwaZulu-Natal.

2.3.9. ILEMBE DISTRICT GROWTH AND DEVELOPMENT PLAN

2.3.9.2. DGDP STRATEGIC GOALS AND OBJECTIVES

No.	STRATEGIC GOALS	STRATEGIC OBJECTIVES	
1	A diverse and growing economy	1.1.	Re-Invent agriculture
		1.2.	Trade and Investment promotion
		1.3.	Expand SMME and Entrepreneurial development
		1.4.	Neutralise youth unemployment by expanding EPWP programmes
2.	Promote Social well-being	2.1.	Develop world class human resources
		2.2.	Develop Health Service
		2.3.	Implement programmes to address Soci-economic welfare
		2.4.	Implement safety and security programmes
3.	Equity of Access	3.1.	Develop inter-modal transportation system
		3.2.	Develop road network
		3.3.	Develop rail network
		3.4.	Improve water resource management and supply
		3.5.	Improve energy production and supply
		3.6.	Development of ICT infrastructure
		3.7.	Development of an airstrip

4.	Living in harmony with nature	4.1.	Advance alternative energy generation and reduce reliance of fossil fuels
		4.2.	Manage pressure on Biodiversity
		4.3.	Adapt to Climate change
5.	A liveable region	5.1.	Develop Liveable Human Settlements and Economic Nodes
		5.2.	Actively promote Spatial concentration and co-ordination of development interventions
		5.3.	Effective Spatial Planning and land Management Systems are applied across the District
6.	Effective Governance, Policy and Social Partnership	6.1.	Strengthen Policy, Strategy Co-ordination & IGR
		6.2.	Building Government Capacity
		6.3.	Eradicate fraud and corruption

Figure: 10: DGDG Goals

In the adoption of the District Growth Development Plan by the ILembe District with key focus on the objectives/goals in alignment with the Provincial Growth Development Plan. The Mandeni Local Municipality as part of their key intervention has focused on the six District Goals in ensuring alignment and has unpacked them through Municipal strategies contained in the Municipal vision for 2030 as indicated below.

2.4. MUNICIPAL POLICIES

16.1.6 Mandeni Integrated Development Plan

The information depicted within this Status Quo in the SDF document is aligned with the broader municipal document Mandeni IDP 2017/18 Review.

The IDP vision which is the broader municipal vision forms the main foundation in the development of the Municipal SDF, as well as the development strategies that needs to find spatial manifestation through the SDF.

16.1.7 Vision:

“TO BE A RELIABLE PEOPLE-CENTERED AND SUSTAINABLE ECONOMIC HUB BY 2030”

16.1.8 Mission:

In support of the vision the Mission of the Municipality reads as follows:

We will achieve our vision following a culture of:

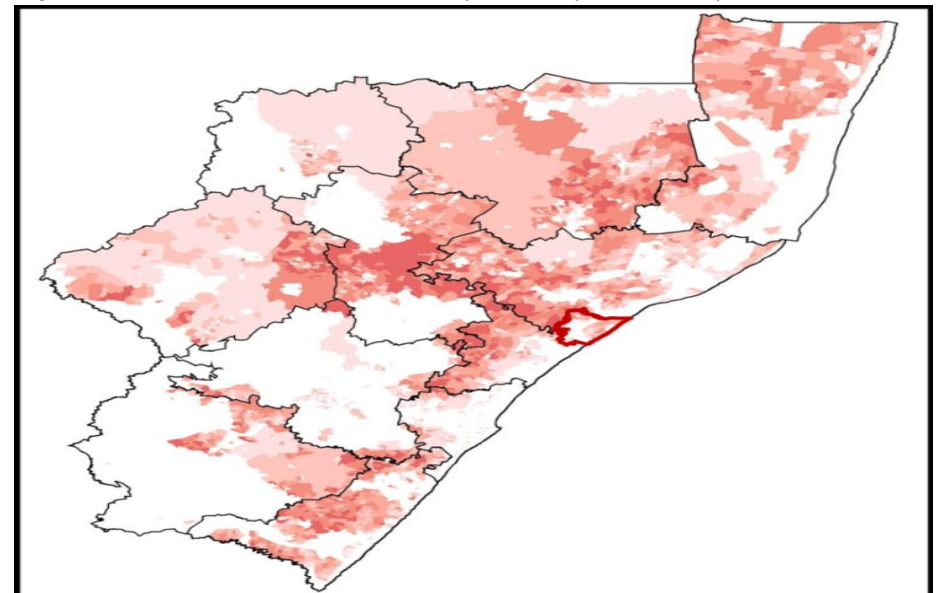
- Continuously striving for better
- Excelling in all key processes of service delivery
- Continuously listening and responding to our communities and all stake holders
- Remaining financially astute

The values underpinning the manifestation of the Vision and Mission are the following, which is linked to the principles of Batho Pele:

- Honestly
- Transparency
- Integrity
- Inclusiveness
- Commitment
- Professionalism

16.1.8.1 Mandeni IDP Vision – Spatial Translation

Figure 11: Spatial Development Objectives (Informants)



Source: Black Balance Projects 2015

16.1.8.2 IDP Broad Strategies

The IDP specifically highlights the following strategic thrusts that all development must contribute to. This is fundamental to be considered during development of the SDF.

- Promoting development and **investment that contribute to the regeneration** and renewal of CBDs.
- Establishing a **town centre** in Mandeni.
- Ensuring **improved Land use Management system** (wall to wall scheme).
- Promoting and **facilitating development and investment along the coast** in a harmonized and sustainable manner – environmentally, economically and socially with specific reference to the Coastal Management Programme.
- Promoting and directing **investment within defined nodes** and specific to the functionality of such nodes i.e. Mandeni, Tugela Mouth, Wangu and Isithebe Industrial Zone.
- Promoting **investment in industrial investment hubs** and provide for sufficient, affordable, reliable infrastructure services.
- Introducing **incentives that attract development initiatives**, the municipality has undertaken a planning exercise aimed at expansion and marketing strategy of the Industrial area.
- Encouraging **settlement** within the **rural context along road networks and existing infrastructure**.
- Introducing **performance project management systems** to track and monitor progress.
- Exploring and **promoting PPPs** as a means to delivery services.
- Establishing **cooperatives to maximize economic opportunities** in the agricultural sector.

- Preserving and **protecting the natural environment** must be preserved and protect and applying conservation management.
- Ensuring the regular **maintenance and upgrade of existing infrastructure**.

16.1.9 Ilembe Regional District Spatial Development Plan (IRSDP)

The IRSDP is intended to provide a clear direction for the management of development and economic growth in the region. The IRSDP identifies five key pillars that are aimed achieving sustainable development and achieving the desired vision:

- **A Diverse and Growing Economy:** A diverse economy would be an economy that offers a range of employment opportunities (formal and informal) and one that is not entirely dependent on one sector. According to the IRSDP a sustainable diverse economy is an economy is one that has at least four economic sectors that equally contribute to the overall GDP. This requires a great deal of investment to not only encourage diversity but also to encourage a growing economy.
- **A Liveable Region:** A livable region is one that offers a range of economic, social, spatial options within a reasonable distance. This requires an equal distribution of infrastructure, quality housing and accessibly through quality roads and accessibility to public transportation.
- **Living in Harmony with Nature:** Being in harmony with the environment requires a number of measures that include the protection of valuable ecosystems by setting conservation areas to prevent encroachment. Identifying valuable agricultural land is not only relevant in terms of living in harmony with nature but also has a direct positive impact on food security. This objective

is not only important for nature but also for the protection of infrastructure and human life from disasters such as fires, floods. This also requires a well-informed population regarding the use of natural resources and implications of over using resources (i.e. fire wood).

- **Equity of Access:** Equity of access refers to access to urban infrastructure, ease of access to social amenities, access to work opportunities and promoting global connectivity through Information and Communications technology. This is directly connected to the objective of creating liveable regions.
- **Promote Social Well-being:** Social wellbeing deals with both the mental and physical well-being of individuals. It focuses on the education, health (life expectancy and levels of mortality) and food security. The gini-coefficient can be used as a measure to indicate the level of social development in an area thus indicating the need to put measures in place to decrease the level of inequality.

The IRSDP not only identifies the desired objectives that need to be met but also sets in place quantitative targets that need to be met by the year 2050 as well as key measures to indicate whether objectives are being met, these may be indicated using the GDP, quality of housing and proximity to facilities and measuring the carbon footprint. These will not only indicate the economic growth of the region but indicate whether there is an equal improvement in the quality of lives.

16.1.10 Mandeni Coastal Management Programme

Although the ILembe District Environmental Management Framework raised points with regards to Coastal Management

within the District, the Mandeni Local Municipality developed a detailed coastal management plan for its coastline. This information is much more site specific and provides a more recent up to date overview of development possibilities within the Mandeni Municipality. This section therefore highlights the provisions of the Mandeni Coastal Management Plan.

The **Coastal Management Plan** identifies the default “Coastal Protections Zone”, based on a definition contained in the National Environmental Management: Integrated Coastal Management Act, 2008 (Act 24 of 2008)” (ICMA). According to the above act, the following defines the Coastal Protection Zone:

- Sensitive coastal areas, as defined by the Environment Conservation Act (Act No. 73 of 1989, section 21 [1]);
- Any part of the littoral active zone that is not coastal public property;
- Any coastal protected area, or part of such an area, which is not coastal public property;
- Any rural land unit that is situated within one kilometre (1000 metres) of the HWM which is zoned as agricultural or undetermined;
- Any urban land unit that is situated completely or partly within 100 metres of the HWM;
- Any coastal wetland, lake, lagoon, [river] or dam which is situated completely or partially within a land unit situated within 1000 metres of the HWM that was zoned for agricultural or undetermined use, or is within 100 metres of the HWM in urban areas;
- Any part of the seashore which is not coastal public property (including all privately owned land below the HWM);
- Any Admiralty Reserve which is not coastal public property; and

- Any land [adjacent to an area referred to in sub-sections (a) to (h)] that would be inundated (submerged or covered) by a 1:50 [100]3 year flood or storm event (this includes flooding caused by both rain storms and rough seas).

The inland area between the CPZ and the N2 that, due to its proximity to the coastal zone, has an impact on the coastal zone, and has subsequently been identified as “**Precinct 5: Coastal Influence Zone**”. The ICMA allows for the amendment of the Default Coastal Protection Zone, which was amended by the municipality on the following base.

Table 2: Amendments to Default Coastal Protection Zones

Precinct	Amendments to Default Coastal Protections Zone
Precinct 1	Reduce the default coastal zone by locating the CPZ adjacent to the coastal forest and extend up Thukela River estuarine functional zone;
Precinct 2	Extend the default coastal zone by locating the CPZ landward of the 1st row of properties as well as following the road between Tugela Mouth and the Amatikulu Nature Reserve boundary;

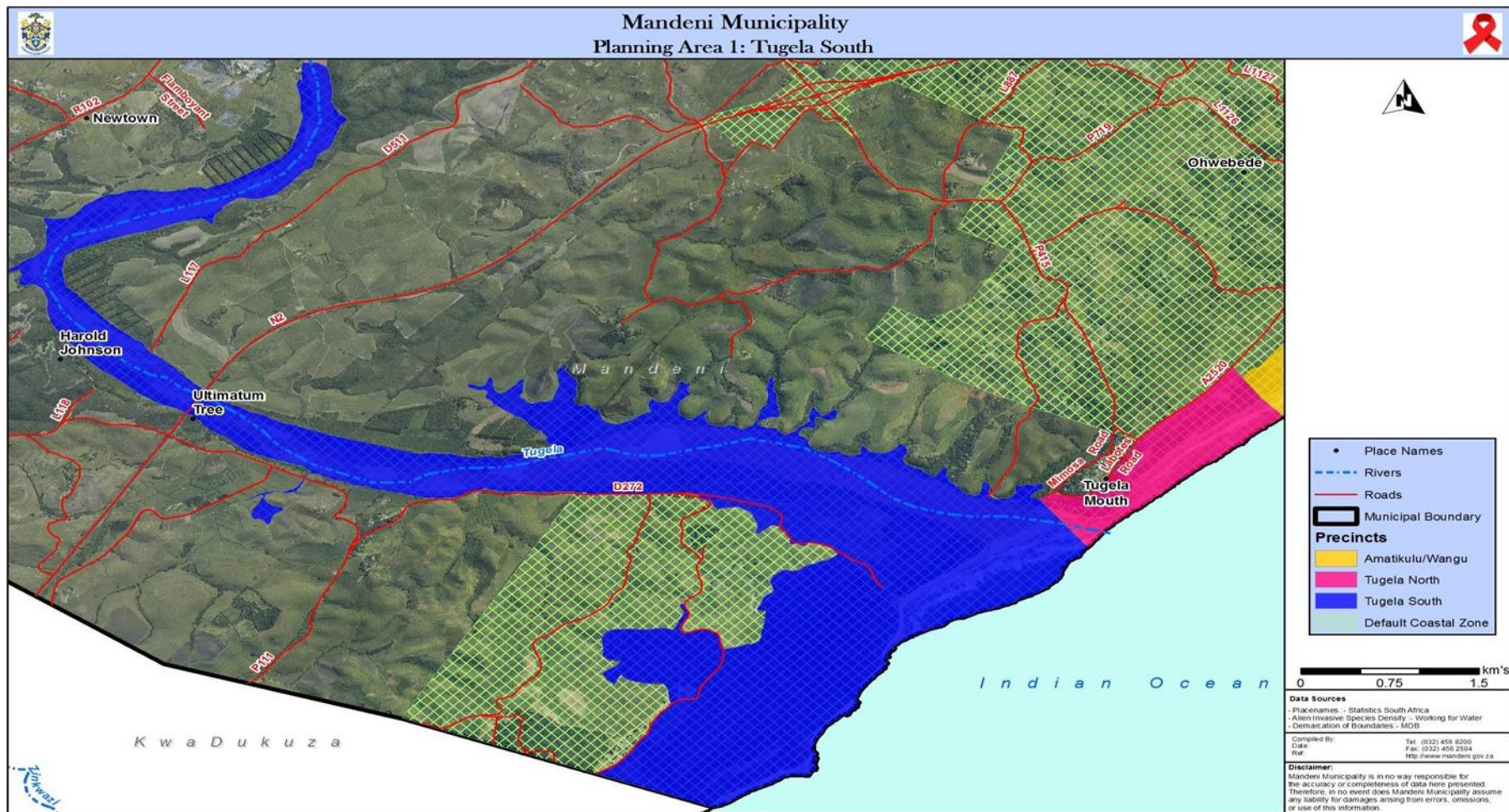
Map 3: CMP – Planning Area 1: Tugela South

Precinct 3	Reduce the default coastal zone by locating the CPZ on the Amatikulu Nature Reserve boundary and extend up Nyoni and Matikulu estuarine functional zones;
Precinct 4	Reduce the default coastal zone by locating the CPZ on the cadastral boundary demarcating the de-proclaimed nature reserve; and
Precinct 5	Coastal influence zone – between the amended CPZ and the N2.

Source: Mandeni Coastal Management Plan

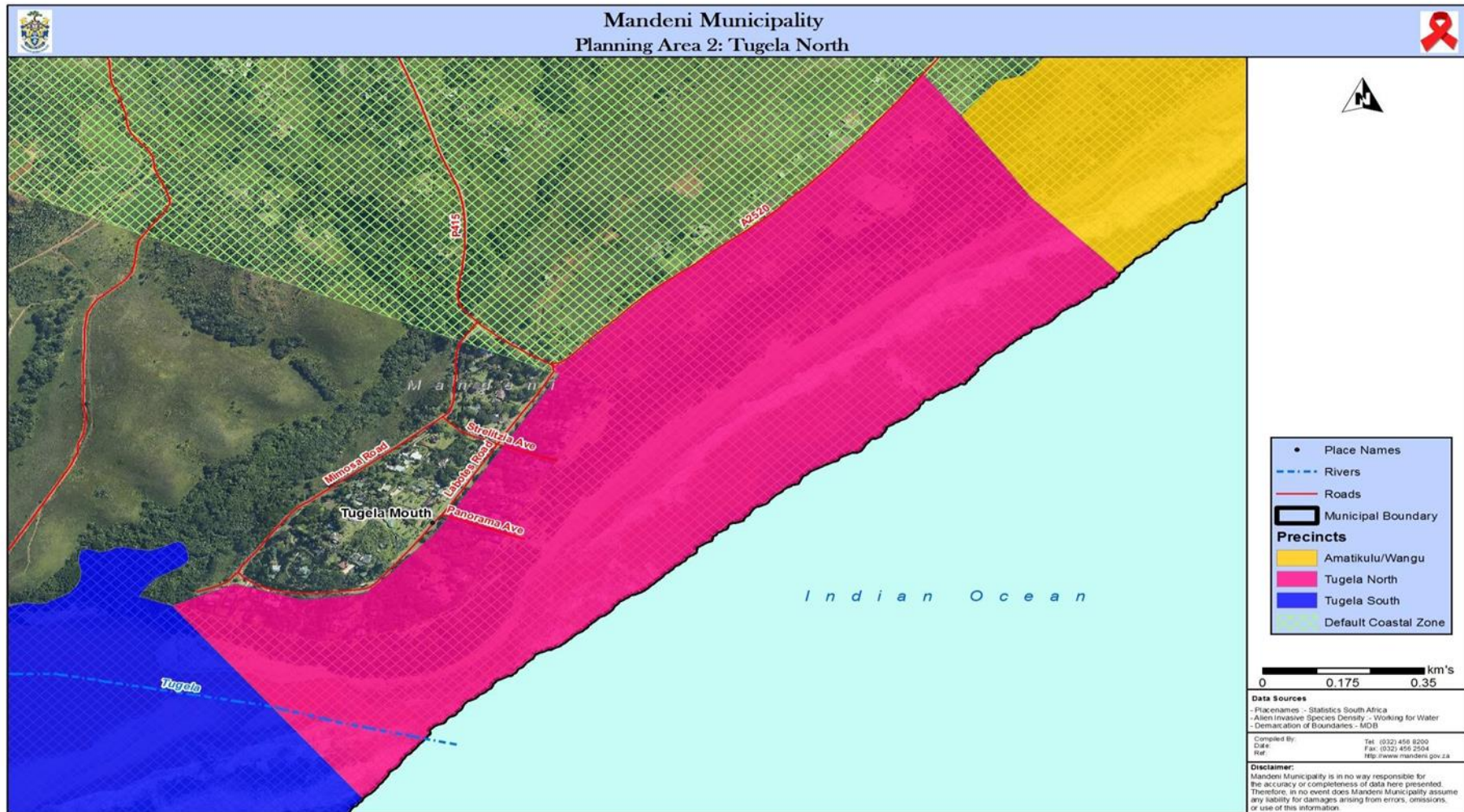
Although the Spatial Management Plan outlines the areas for intervention, the content of the **Coastal Development Planning Tool**, is more applicable to the provisions of the Spatial Development Framework and subsequently needs to be consulted to ensure comprehensive inclusion of its proposals into the SDF.

The Images below identifies the Planning Areas.



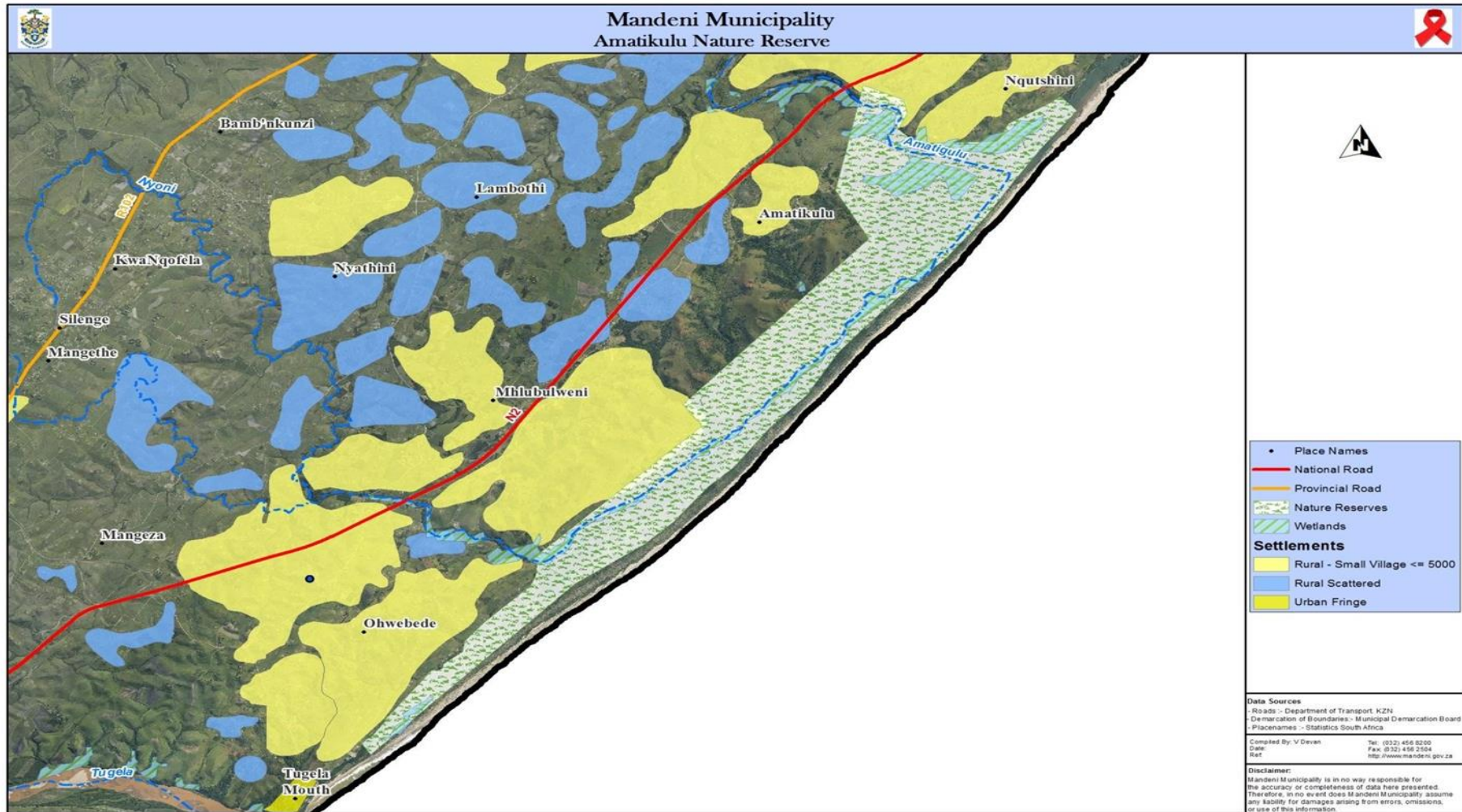
Source: Mandeni Coastal Management Plan

Map 4: CMP – Planning Area 2: Tugela North



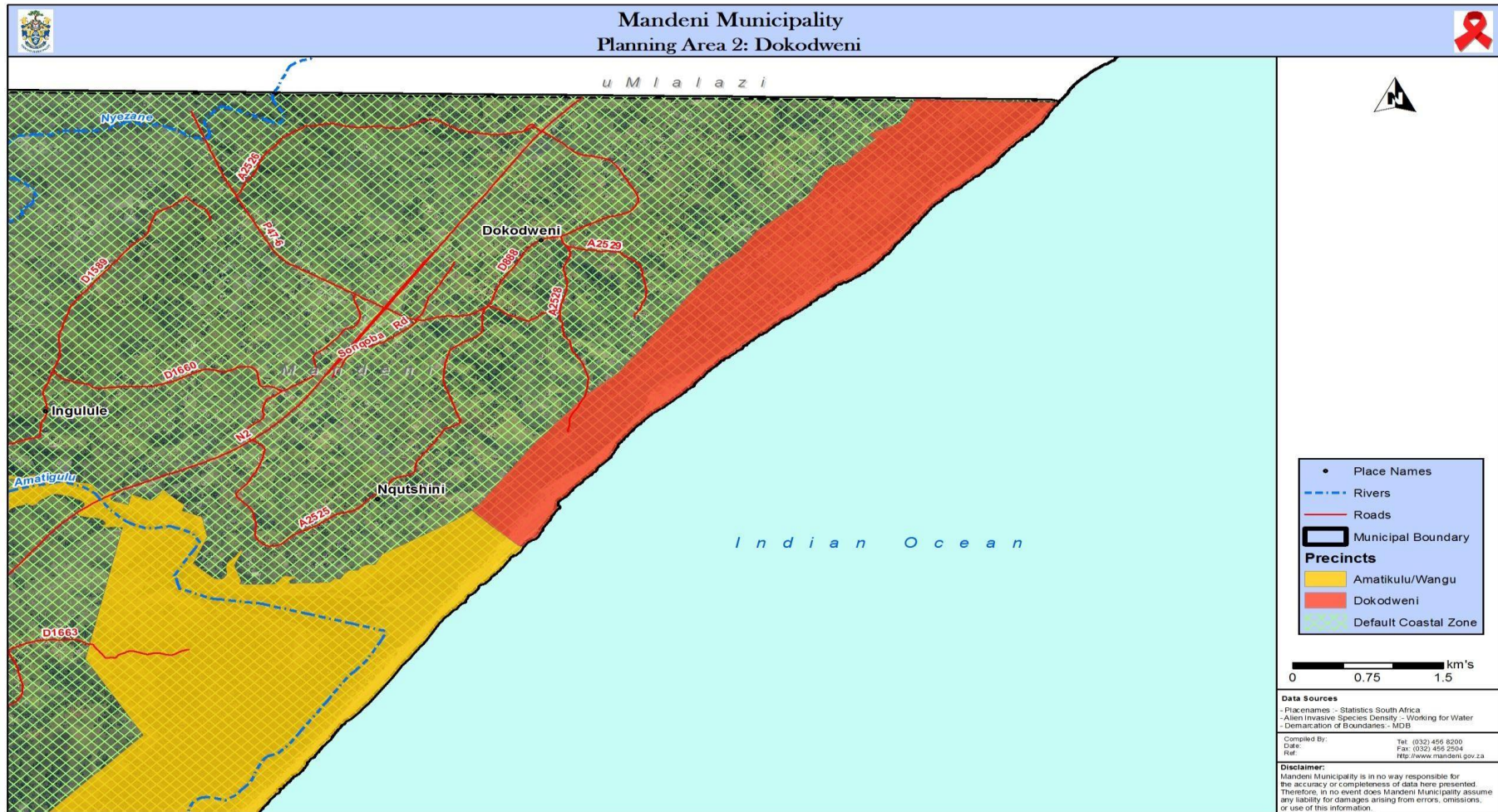
Source: Mandeni Coastal Management Plan

Map 5: CMP – Planning Area 3: Amatikulu Nature Reserve



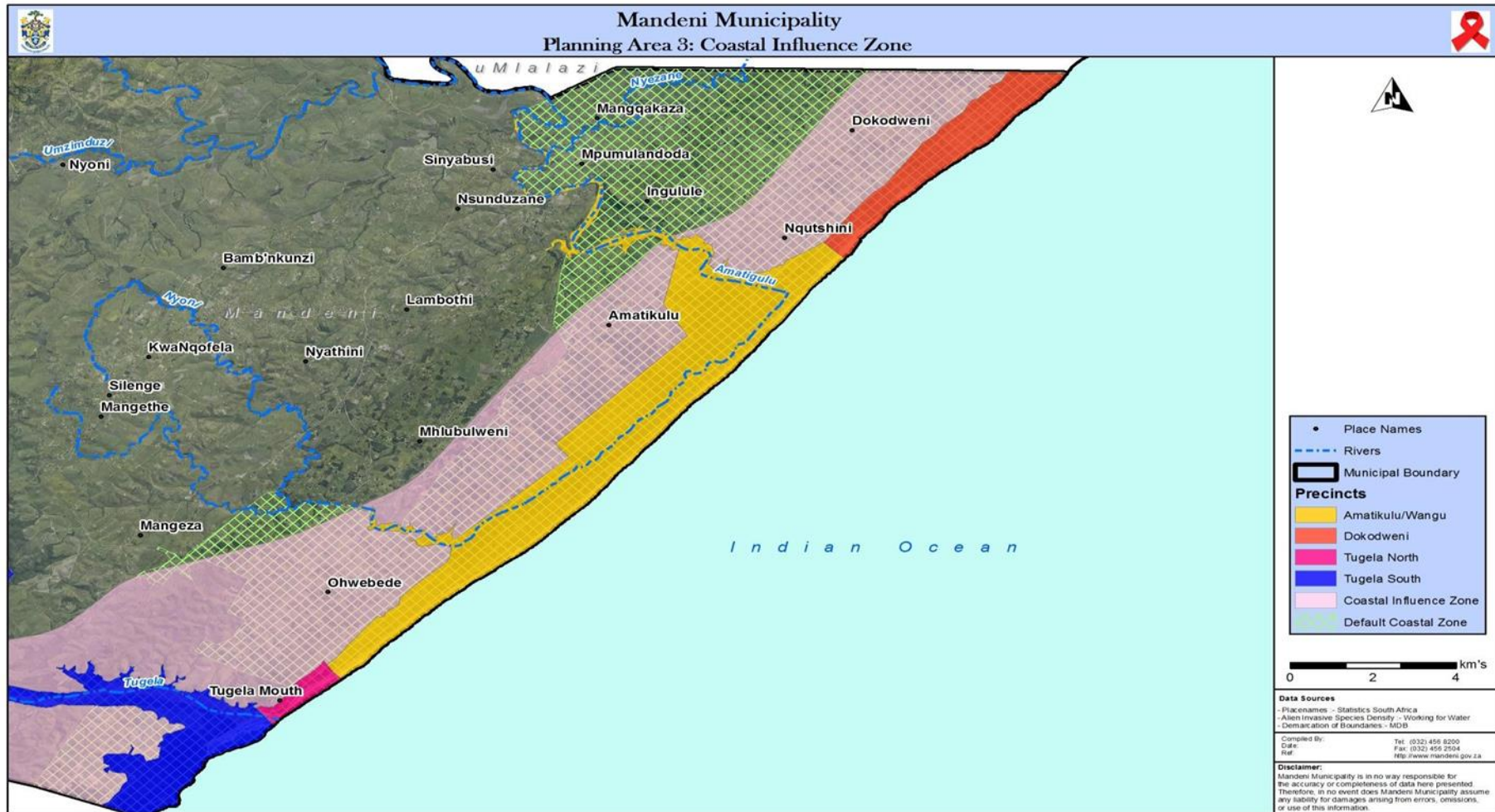
Source: Mandeni Coastal Management Plan

Map:6 CMP:Planning Area 2: Dokodweni



Source: Mandeni Coastal Management Plan

Map 7: CMP – Planning Area 3: Coastal Influence Zone



Source: Mandeni Coastal Management Plan

16.1.11 Coastal Management Focus Areas

The Mandeni Local municipality Identified 7 Key areas of focus to ensure the sustainable development and management of the Mandeni Coast Line. The table below outlines the Key Priority Areas and the associated key issues to be addressed and considered when developing the SDF and other sector plans. It needs to be noted that not all of these aspects have physical manifestation.

Table 3: Mandeni Coastal Management Programme – Key Focus Areas

PRIORITY AREA 1: COOPERATIVE GOVERNANCE	• Lack of institutional capacity and resources with regards coastal management issues; • Lack of compliance and/or enforcement capacity to ensure regulations and procedures are followed; • Limited funding and access to funding for upgrading infrastructure; • Amendments to the so-called Off Road Vehicle Regulations and potential implications for the existing Lebotes and Amatikulu launch sites; • Lack of on-going marketing / awareness raising programmes promoting Mandeni as a tourism destination; • Lack of involvement of the Macambini Tribal Authority and Ingonyama Trust in on-going coastal planning processes; and • Thukela River been constrained in terms of
PRIORITY AREA 2: COASTAL PLANNING AND DEVELOPMENT	water supply capacity. • Inadequate Infrastructure as a result of basic services backlog - inadequate electrical infrastructure; limited water supply capacity; and inadequate sanitation infrastructure; • Planning undertaken and approvals granted without considering basic infrastructure needs/constraints; • Demands for future adequate transport, housing, sanitation, water infrastructure and swimming beaches; • Lack of safe swimming beaches and limited public amenity at existing & proposed swimming beaches; • The need to learn from mistakes made in other coastal areas – such as maintaining a natural buffer, preventing ribbon development and encouraging nodal development; • Challenges in balancing conservation and economic development needs; • Approval of potentially inappropriate development at Tugela Mouth as a result of the high demand for tourism development; • Challenges in enticing the right type of development – preferably non-intrusive low impact; • Demand for additional coastal settlement; • Potential development is constrained by the lack of bulk infrastructure and the need to share the costs of installing bulk; and • Maintenance of existing unspoilt view-sheds.

PRIORITY AREA 3: CLIMATE CHANGE AND DYNAMIC COASTAL PROCESSES	• The dynamic and unpredictable nature of natural coastal processes which exert influence on the coastline and the resultant dune, shoreline & sandy beach degradation; • The impacts of dynamic coastal processes such as climate change; sea-level rise; coastal erosion and sand replenishment malfunction; • Increased frequency of storm events and increased rates of erosion and greater geotechnical instability of dune systems, with 'slippages' or failures becoming increasingly prevalent where ancient dune systems date back thousands of years; and • The need to learn from mistakes made in other coastal areas – such as maintaining a natural buffer and avoiding inappropriate storm water management.	ESTUARIES	• Poor farming practices and illegal sand winning and the resultant siltation of estuarine environments; • Continued sand/stone mining and specially illegal operations upstream in the Matikulu River; • Artificial breaching; • Agriculture encroachment; and • Faecal, organic and industrial pollution.
PRIORITY AREA 4: LAND AND MARINE-BASED SOURCES OF POLLUTION AND WASTE	• The negative impacts of pollution on the coastal environment from upstream industrial and agricultural practices; localised pollution; and poor water quality; • Beach Litter; • Wastewater treatment works is in urgent need of upgrade/refurbishment; • Marine pollution and other debris on the beach; and • Illegal dumping is a major problem identified below the Isithebe Industrial Area.	PRIORITY AREA 6: THE FACILITATION OF COASTAL ACCESS	• The provision of coastal access as well as accessibility to the coastal zone, specifically access to the Thukela South Bank and protected areas; • Access to and access-related infrastructure must be maintained (OPEX funding in addition to CAPEX); • Vehicular access and associated parking facilities are needed in this area; • Resolving issues of access with private land holders (Tongaat Hulett Development) and conservation authority (Ezemvelo KZN wildlife); • The promotion of access to development opportunities provided by the coastal area (sustainable coastal livelihoods); • Ongoing security of existing and future beachgoers; • Accessing extensive studies undertaken as part of the unsuccessful proposed Ruwaad Group development; • Access to CMP implementation funding; • The need to learn from mistakes made in
PRIORITY AREA 5:	• Continued water abstraction from the Thukela River;		

	other coastal areas – such as facilitating public access, preventing ribbon development and encouraging nodal development; and • Management of traditional practices in the coastal zone.
PRIORITY AREA 7: NATURAL RESOURCE MANAGEMENT	• Ecological degradation / transformation of natural resources and the resultant biodiversity loss; • Degradation of natural vegetation due to the presence of alien invasive species specifically in relation to protected areas, tribal areas, undeveloped land parcels; • The perceived move from intensive agricultural practices towards less intensive subsistence activities; • Reduced water quality and degradation of wetland areas; • Extensive and uncontrolled harvesting of marine stocks, specifically as a result of off-shore trawling of the Thukela Banks; • Cattle on the beach; • DMR attitude and lack of support regarding issuing of sand mining permits promotes current illegal practices; • The need to investigate the viability of applying for Blue Flag Status; • Rich cultural heritage needs to be maintained and looked after; and • Illegal fishing is a major problem identified below the Isithebe Industrial Area.

17 .STATUS QUO ANALYSIS

2.3.10. Available Base Information

The following sector plans were provided by the Municipality, and was scrutinized as part of the Status Quo Analysis.

- Ilembe Environmental Management Framework
- Ilembe Regional Spatial Development Plan
- Ilembe District Growth and Development Plan (2016)
- Mandeni Coastal Management Plan
- Mandeni Housing Sector Plan (2015)
- LED Strategy 2015
- Tourism Strategy
- Current Mandeni SDF (2015)
- Mandeni LED Summit Report
- Mandeni IDP 2016/17
- Mandeni Road Master Plan

2.3.11. INVESTMENT AREAS

17.1.1 Service Centres and Activity Points (Nodes)

The Existing Development Plan in the IRSDP (2013) identifies the various existing Nodes/centres in terms of the basic Two Metropolitan Core centres; Coastal Towns and Village Centres, as they are; Urban Towns and Village Centres; and Rural Town and Village centres, where they possess such centres. Currently the IRSDP (2013) regards Mandeni as a Rural Village; however the SPD for Ilembe identifies the Mandeni/Sundumbili area as an Urban Town Centre. This could be attributed to the current development proposals that are occurring in Mandeni.

The hierarchy of nodes within the municipality on local level is summarised in the table below, and is discussed in more detail in the sections following the table.

Urban Town Centre	Urban Village Centre	Coastal Village Centre	Rural Village Centre	Industrial	Tourism
Mandeni Sundumbili	Nyoni Tugela	Tugela Mouth	Ndulinde, Wangu, Macambini Ohwebede.	isiThebe	Dokodweni Tugela Mouth

17.1.1.1 Urban Town Centre

The Urban Town Centre of the Municipality is the area surrounding the **Mandeni / Sundumbili Business District** and has been identified as the primary service centre within previous IDPs of the municipality as well as the iLembe Spatial Development Framework. As the heart of the emerging core urban complex encompassing Mandeni, SAPPI, Sundumbili and Isithebe, this node performs a function to the surrounding regional settlements beyond the borders of the Mandeni Municipality.

The conceptual boundaries of the primary node have been defined within the Sundumbili Urban Node Regeneration project funded by the Department of National Treasury through the Neighbourhood Development Partnership Grant (NDPG).

17.1.1.2 Urban Village Centre

Urban Village Centre is identified by the existing and (potential future) clustering of primary services and often at key intersections of access routes in especially the Traditional Authority Areas. These points serve as the first entry point to service delivery in the rural areas and provide a plausible threshold for the clustering of groups of small, localised businesses; thus providing the starting points for the emergence of mixed use activity nodes. The following nodes are identified as urban village centre:

- Nyoni
- Tugela

Nyoni was identified as an urban village centre. Because this centre in itself is rural in nature, but due to its locality serves as a vital service centre to especially commercial farmers and communities from traditional authority areas. Nyoni is located along the Activity Corridor, and often serve as residential destination in its own right.

17.1.1.3 Coastal Village Centre

Coastal Village Centres are those areas located along the coast. These nodes provide basic services for the settlements along the coast. The following nodes are identified as coastal village centre:

- Tugela Mouth

17.1.1.4 Industrial Node

The **isiThebe Industrial Park** and potential expansion around it, mainly forms the industrial node within the municipality. Although the SAPPI plant represents a major industrial area and some additional light service industrial developments are envisaged around it, it is not intended to serve as a growing industrial node, mainly due to its locality. Isithebe Industrial Park has been identified

as the Renewable Energy Hub within the ILembe District Municipality.

17.1.1.5 Rural Settlement Clusters

In terms of the Detailed Settlement Definitions (contained within the DSM Manual of the Department of Water Affairs and Forestry) a non-formalised settlement with between 500 to 5000 persons residing in it is classified as a village. Although the same definition parameters are used, this SDF refers to these areas as Rural Settlement Clusters as the distinction between one village to the next is not always as definable. A total of 12 such rural settlement clusters have been identified within the municipality by using population density data. These include (amongst others) the villages of **Ndulinde, Wangu, Macambini and Ohwebede**.

Ndulinde has been identified as one of the emerging rural nodal point within the District and Mandeni municipality. Hence with the current construction of provincial road D888 this will play a huge role in improving connection links with the surrounding areas and satellite activities such as Municipal library.

17.1.1.6 Tourism Node

Dokodweni Beach has been identified as a tourism node with great potential for improving the District tourism sector. A Local Area Plan (LAP) for Tugela Mouth and Dokodweni have been adopted which provide detailed planning in terms of the development of these areas. The tourism route R66 / King Shaka Route need to be exploited as this route could open up more economic opportunities for the community. Dokodweni beach has recently obtained Blue Flag status.

The Dokodweni area has been recognised outside municipal jurisdiction as the place for hosting events i.e ibeach Xperience Corridors

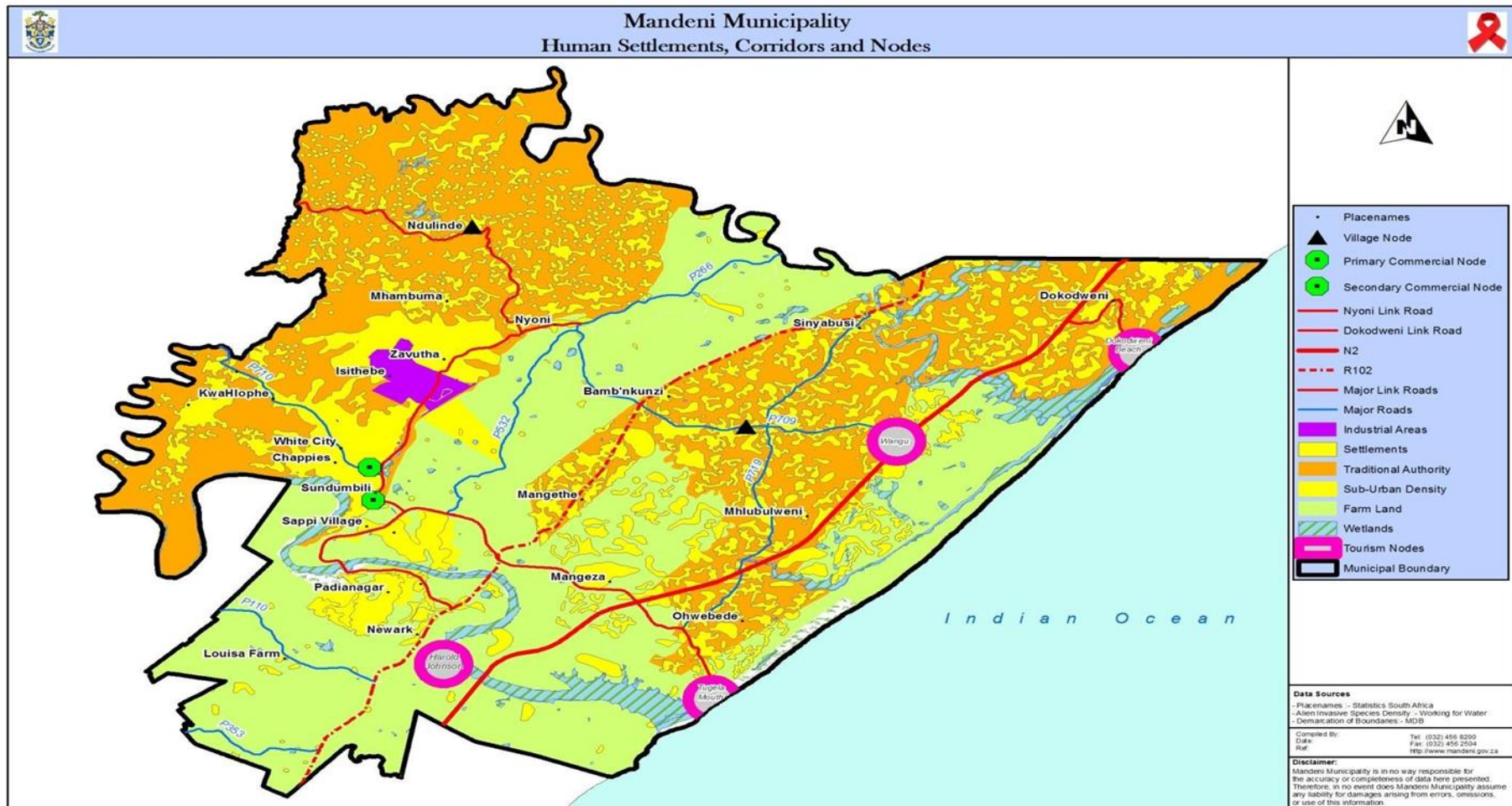
The Table Below summarises the hierarchy/classification of roads & Corridors, as is discussed in more detail in the sections following the table.

Table 4: Corridor Hierarchy

Regional Thoroughfare	Regional Development Corridor	Primary Activity Corridor	Local Corridor	Link Roads
N2	R102	MR459 P266 P415 P523	Thokoza Rd	P110 P224 P710 P719

The Image below depicts the above mentioned nodal areas and corridors within the municipality.

Map: 8 Nodes & Corridors



Source: Mandeni Municipality: GIS

17.1.1.7 Regional Development Corridor

The Provincial Spatial Economic Development Strategy has identified the N2 route between uMhlathuze and eThekweni as a primary provincial corridor.

The R102, which runs parallel to the N2 serves as regional development corridor within municipalities along this route. This can be ascribed to the fact that no direct accesses onto the N2 from potential developments are envisaged and the result in other areas such as KwaDukuza has already been that developments cluster along the R102 for localise and regional access and in close proximity to the N2 route.

The Provincial Department of Transport have commenced with the construction of the Provincial Road District D883 joining P415 to IsiThebe. This route aimed to increase accessibility towards activity nodes of Ndulinde and IsiThebe industrial area.

17.1.1.8 Activity Corridor

The P415 is identified as a municipal wide activity corridor crossing over the N2, linking the coast and the hinterland; it runs from east-west linking the Tugela Mouth Service Centre and Mandeni/Sundumbili Primary Node. From the primary node the activity corridor diverge from the P415 in a northern direction along the MR459, passing isiThebe towards Nyoni and Amatikulu.

The Mandeni Municipality has identified P415 as the municipal activity corridor, which crosses the N2, and becomes the Tourism link to Tugela Mouth, linking the coast and hinterland. It also links the Mandeni/Sundumbili primary node.

The Current Spatial Development Framework illustrates that this activity corridor is characterised as a mixed use development corridor linking all the different land uses and development areas within the municipality while provided excellent access to the R102 and N2. The promotion and development of this activity corridor as the vital spine to this municipality cannot be understated.

17.1.1.9 Link Roads

The following routes have been identified as important link roads to ensure secondary access to both the Regional Development Corridor and the Activity Corridor:

- The P709 as link road crossing over N2 linking the Amatikulu Nature Reserve through the Wangu Activity Point, via Nyoni with the IsiThebe Industrial Node east-west, linking the coast with the hinterland. This is the road has high economic potential and is vital for the expansion of the Industrial area and development along the coast. Currently this road is gravel again strategic intervention to upgrade the road into black top surface is of high importance.
- The P532 provide another important link between the Mandeni areas directly towards Nyoni. If upgraded it could primarily provide an alternative access route to both isiThebe and Nyoni and in so doing alleviate some of the freight traffic along the activity corridor. This link road will in future further provide alternative access to the planned urban infill areas and serve as the boundary between urban development and the future agricultural land area.
- The P710 route connecting the Urban Complex of Mandeni with other regional inland areas outside of the Mandeni municipality is important not only to serve households from

those areas by providing access to services and opportunities within the complex, but also vital for the economic growth of the complex itself. Economic studies conducted during the Sundumbili Urban Regeneration study found that the complex serve a major regional commercial centre and that economic thresholds to the centre is to a large degree made up of households outside of the Mandeni municipality.

- Thokoza road plays an important role within the municipality as it joins the Mandeni CBD to the Sundumbili Node. This route further provides access to the various activities such as Magistrate court, Sundumbili Sports arena, Sibusisiwe community hall and to the Secondary node. Hence the municipality in the Town Planning Scheme has been identified municipal Corridor with mixed land uses.

2.3.12. Natural Resources

This section aims to provide information with regards to the natural environment that needs to be considered in developing the spatial development framework. And will highlight no-go areas and areas where various development densities should be considered.

17.1.2 Topography

From the Topography map below it is evident that the north western portions of the municipality is the highlands although not exceeding 650m above sea level. The areas around the built up areas of Sundumbili and Mandeni are located within the topographically transitional areas and the majority of the municipality on its eastern portions characterised by fairly low laying and even landscapes with the occasional undulating range.

Map 9: Mandeni Topography



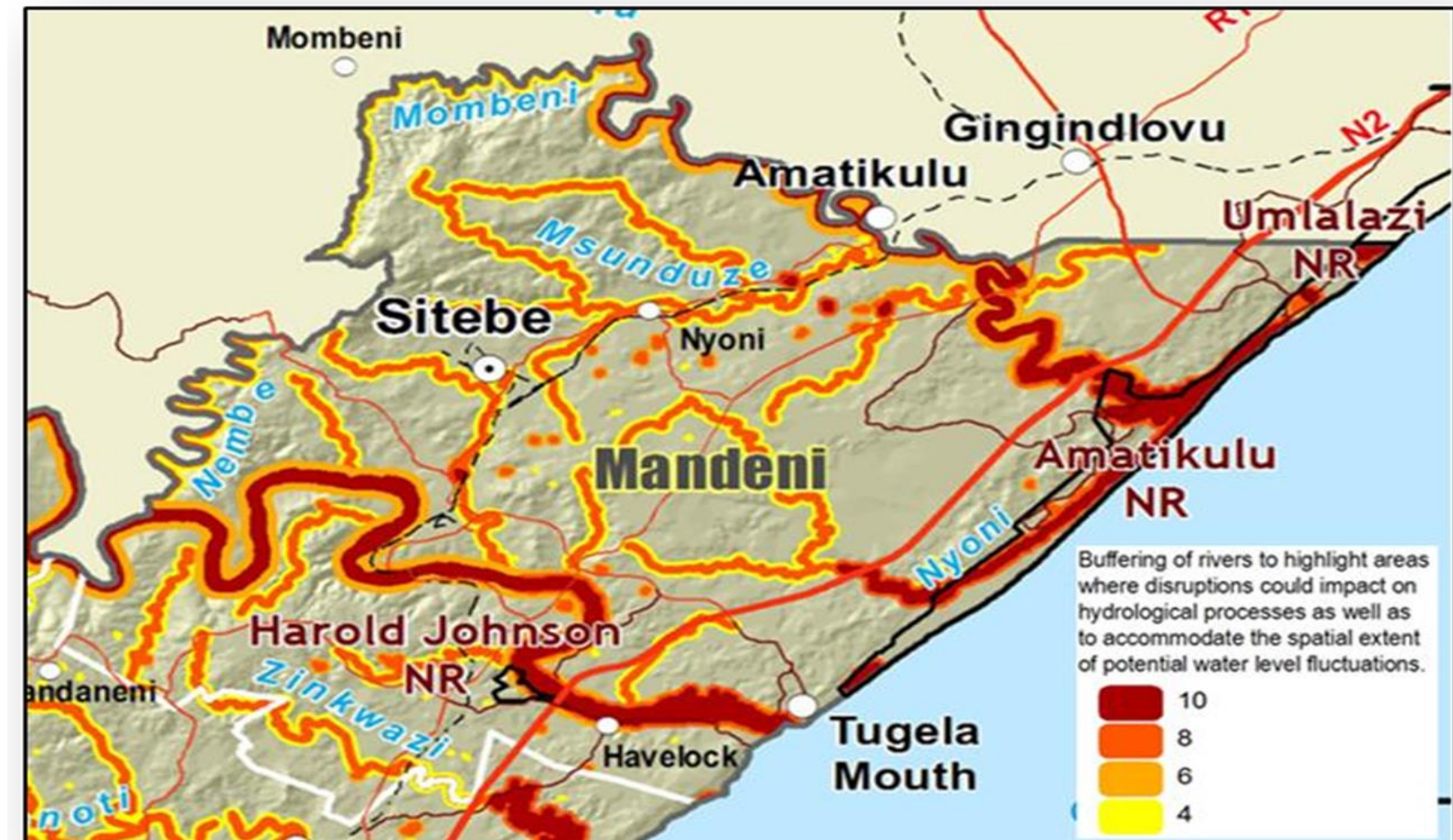
Source: Mandeni SDF 2010.

Map 10: Mandeni Precipitation

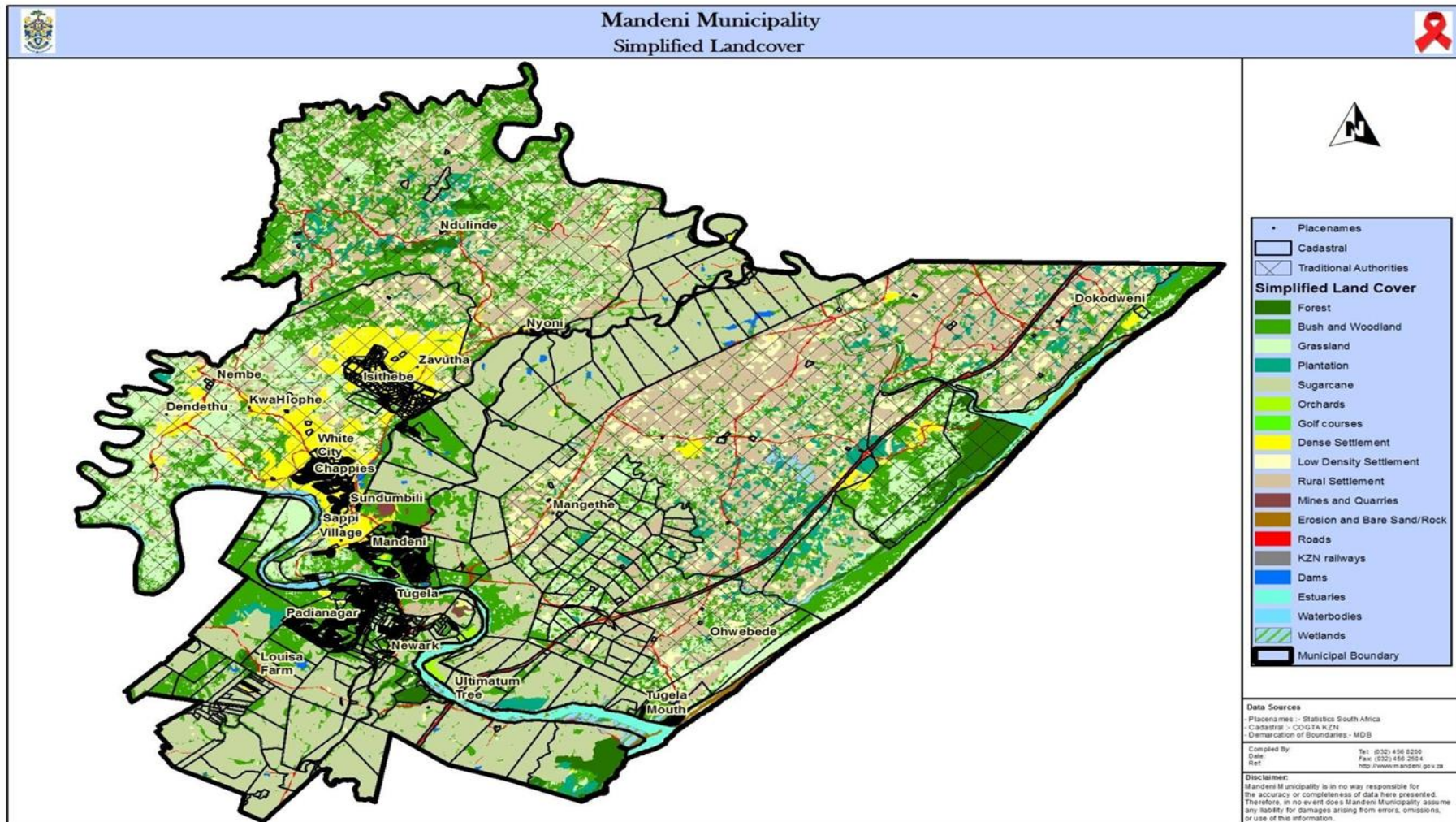


Source: Mandeni SDF 2010.

Map 11: Slope Analysis



Map 12: Simplified Land Cover



Source: Mandeni Municipality: GIS

- | | |
|---------------------------|---------------------------|
| • Forest | • Rural Settlements |
| • Bush and Woodlands | • Mines and Quarries |
| • Grassland | • Erosion and Bare Sand / |
| • Commercial Agriculture | Rock |
| • Plantation | • Roads |
| • Sugarcane | • Railways |
| • Orchards | • Dams |
| • Golf Courses | • Estuaries |
| • Dense Settlements | • Water Bodies |
| • Low Density Settlements | • Wetlands |

17.1.3 Environmental Sensitive Areas

The Biodiversity Priority Conservation areas as defined by the Department of Agriculture and Environmental Affairs.

A significantly large portion of the municipality is classified as Biodiversity Priority 1. These areas are situated in general North West of the N2 national route and include commercial agricultural areas as well as rural Tribal Authority Areas.

100% transformed areas are situated between the R102 and the P459, as well as the most southern boundary of the municipality. Land uses within these areas consist of Commercial Sugarcane farming activities.

Since these Biodiversity Priority 1 areas are situated adjacent Mandeni/Sundumbili, as well as adjacent to Isithebe, expansion of the area will have to be strictly monitored and managed in terms of Biodiversity Conservation targets.

Further, there are four (4) formal conservation areas in the municipality:

- The Harold Johnson Conservation Area
- Amatikulu Conservation Area
- Red Hill Conservation Area (Managed as part of the Amatikulu CA)
- Ingwenya Conservation Area

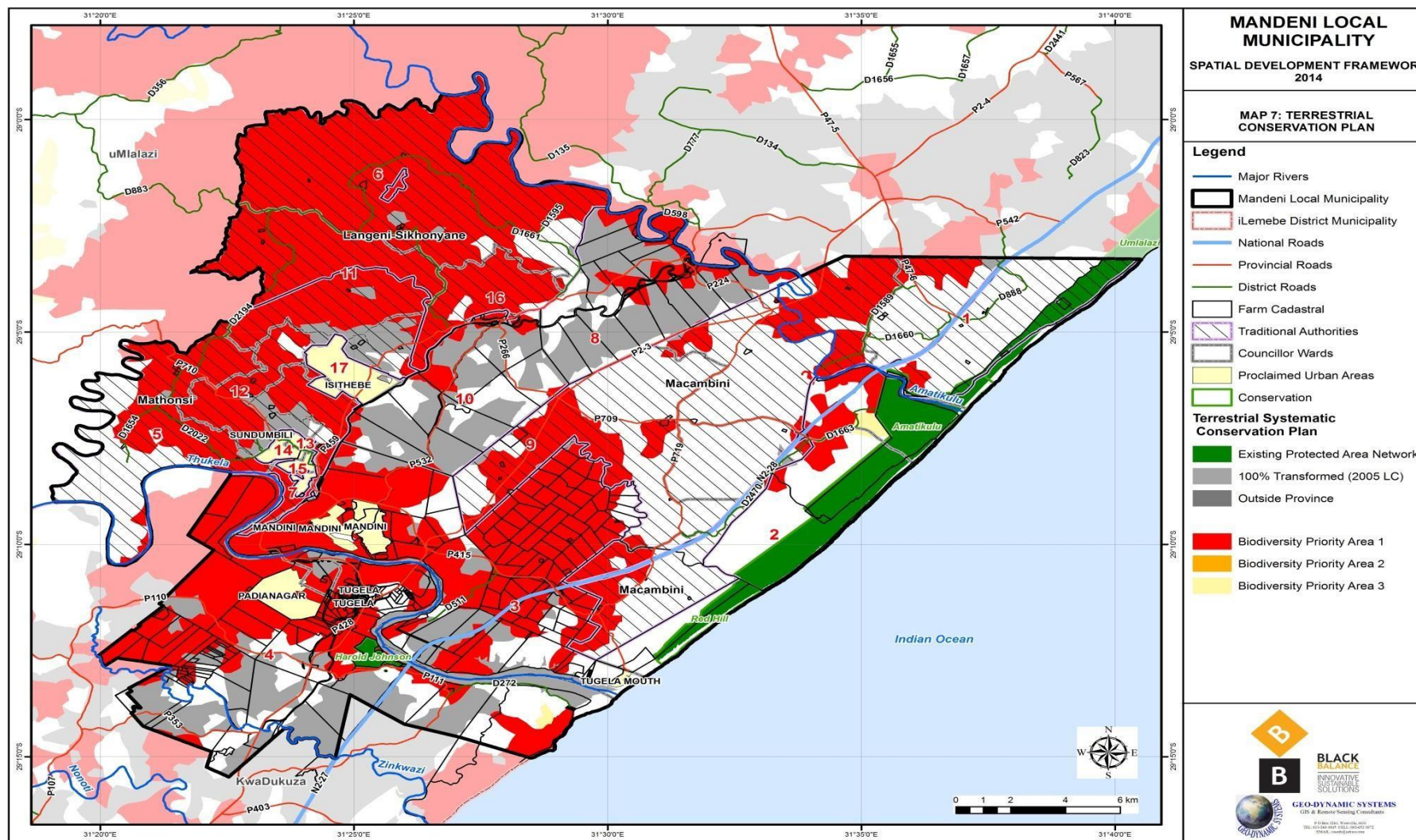
17.1.4 Protected Areas – Amatikulu Nature Reserve

The Ezemvelo KwaZulu-Natal Wildlife Management Planning Unit has recently reviewed the **Amatikulu Nature Reserve Integrated Management Plan** for the period 2009-2013. Due to the significant value of this nature reserve along the coastal area of Mandeni as well as the anticipated development pressure along this part of the municipality, the brief intentions and management zones from the plan are summarised below and was considered within the formulation of the SDF. The Image below depicts the locality of the Amatikulu Nature Reserve.

17.1.5 Protected areas- Ingwenya Conservation Area

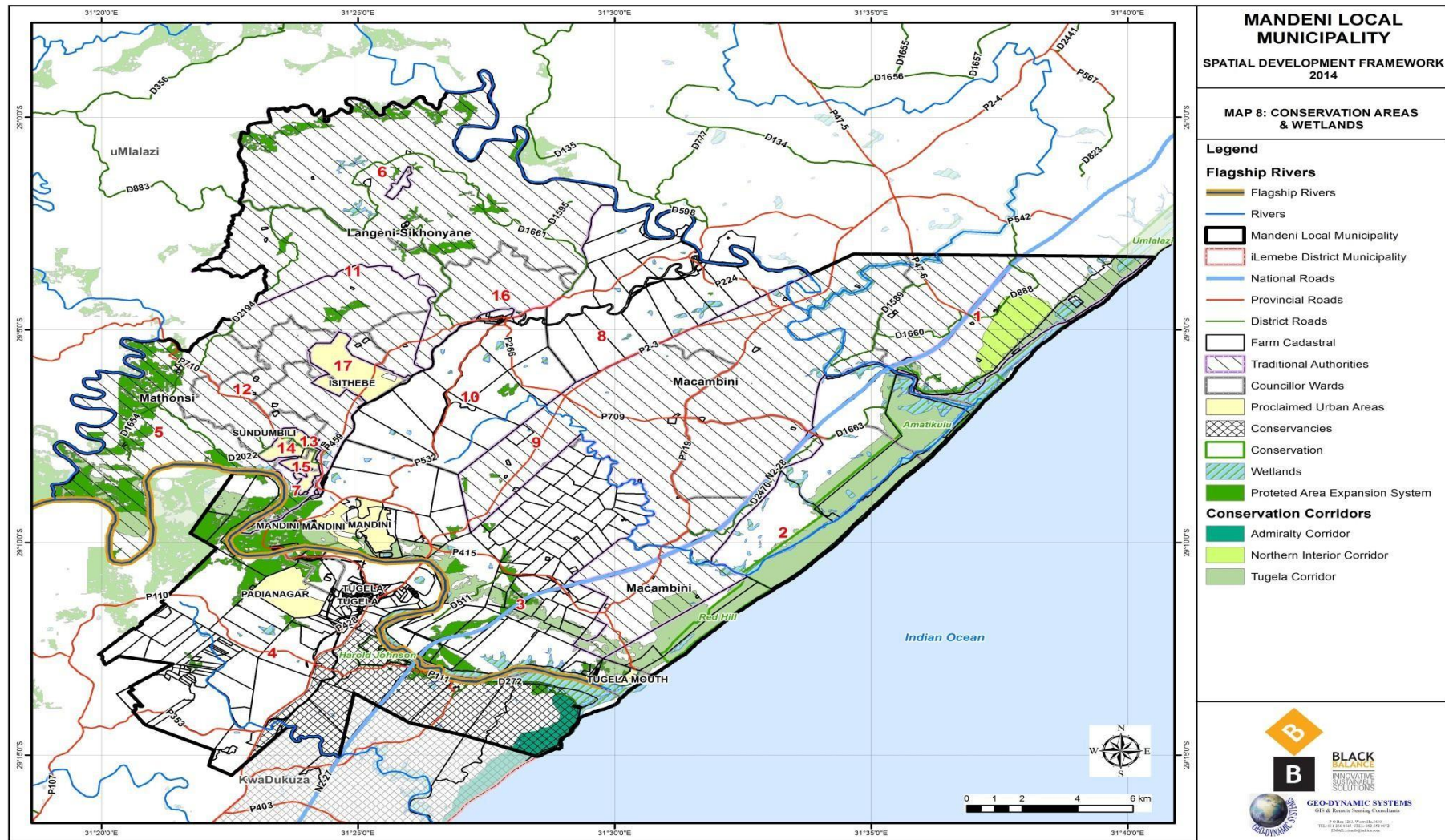
Ingwenya Conservation Area was proclaimed as Nature Reserves by the KZN Department of Ezemvelo Wildlife in the previous years and now is no longer holding this status. The conservation of these areas as part of the Mandeni environmental resources/ Tourism point is very important in the development of Tourism sector. Currently the Mandeni Local Municipality is in a process of revitalisation of this area, now we are busy with fencing.

Map 13: Terrestrial Conservation Plan



Source: Black Balance Projects

Map 14: Conservation Areas and Wetlands



Source: Black Balance Projects

17.1.5.1 Mission

The Mission of the Amatikulu Nature Reserve is:

“A commitment to sustainably manage and conserve the natural and cultural resources of the Amatikulu Nature Reserve, based on sound environmental principles, that benefit both the visitor and host community in an equitable manner.”

17.1.5.2 Vision

The Vision of the Amatikulu Nature Reserve is:

“A consolidated and legally protected Nature Reserve, providing sustainable and tangible benefits to visitors, neighbours and the metropolitan area through the provision of appropriate access to the cultural and natural resources, such as environmental education, ecotourism, partnerships and sustainable resource utilisation. A Nature Reserve that practices sound conservation practices and contributes to the biodiversity targets of KZN”.

- **MO1: Conservation** of key biodiversity features, biophysical processes, landscapes, abiotic, historical and archaeological resources.
- **MO2:** The provision of **socio-economic benefits** (benefit flow) to the Reserve's neighbours and to contribute to the local economy and the efforts of conservation in a sustainable manner based on sound business principles (EKZN Business Plan).
- **MO3:** The provision of appropriate ecotourism **business** opportunities in the natural and cultural environment based within the influence sphere of ANR

- **MO4:** The formation of functional **partnerships** to integrate the ANR with regional development plans and other initiatives which underwrite the vision of ANR.

17.1.5.3 Management Objectives

The 17 management objectives for ANR were not set according to ranking:

1. Conserve the Amatikulu Nature Reserve, its associated biodiversity and maintain its developed infrastructure.
2. Conserve the rare and endemic ecosystems and species.
3. Contribute to sub-regional eco-tourism initiatives.
4. Contribute to the achievement of National and Provincial conservation targets.
5. Facilitate controlled access to cultural heritage sites.
6. Facilitate environmental and cultural education and awareness, including access to historical information related to the history of the reserve and the surrounding area.
7. Identify and control threats to biodiversity.
8. Minimise threats to the sense of place (retain the aesthetic value of the area).
9. Participate as a key stakeholder in local environmental management initiatives.
10. Play a key role in local eco-tourism initiatives.
11. Play a notable role in local, regional, national and international conservation initiatives.
12. Promote and encourage community involvement in biodiversity conservation.
13. Promote and ensure effective communication between the local communities and EKZNW through integrated, shared and co-operative working relationships.

14. Promote conservation as a viable and sustainable land use option.
15. Promote supervised access to the Nature Reserve and its resources, both natural and cultural, and promote responsible use of the facilities by the public.
16. Provide appropriate recreational opportunities.
17. Safeguard the archaeological, historical, paleontological and living cultural heritage of the Nature Reserve.

17.1.5.4 Conservation Targets

In order to assist in developing a conservation management strategy more effectively linked to budget and resources, it is necessary to have specific conservation objectives (or 'targets' in conservation planning terms) in place. Monitoring of status relative to these targets will then allow for measurement of success of management interventions (and consequent budget and resource adjustments where required), and to trigger management interventions when certain thresholds are reached. This removes the 'monitoring to extinction' problem that has arisen in many organisations.

Apart from the need to monitor the success of implementation of the strategy in terms of achievement of conservation targets, a basic requirement for a systematic approach to conservation planning, impact assessment and protected area management effectiveness assessment is the identification of a clear set of provincial goals for the province, which for operational use needs to be translated into a more specific set of quantitative 'targets' (Margules & Pressey 2000).

A key (but faulty) assumption often made with provincial Systematic Conservation Plans in terms of conservation priorities outside the protected area network is that protected areas continue to

conserve key species and habitats at the same levels at which they occurred when the plan was developed. Where protected areas have failed to do so, it will result in an underestimate of conservation requirements outside protected areas and hence the real possibility of provincial conservation objectives and targets not being achieved. It is therefore essential to design and implement management and monitoring strategies to ensure that ANR continues to conserve those species and habitats which are important at a provincial level.

Conservation targets for biodiversity are not easily set, and indeed, conservation managers, scientists, decision makers and politicians have been reluctant to formalise and agree to targets. In reality our understanding of 'how much is enough', in what spatial configuration this will be, what the most critical processes are for the maintenance of biodiversity and how one can conserve these is poor, and the debate and research around this topic will continue for some time to come. This information will be continuously updated over time as our knowledge of area, connectivity and other process requirements improves for the conservation of ecosystems, communities and species.

However, management has to take place despite these deficiencies so it is necessary to make best use of available information, stating the assumptions and limitations, and to see conservation targets as a set of working hypotheses around which conservation planning and evaluation can take place. Another advantage of developing strategies around targets is that this process serves to highlight the critical knowledge deficits thus guiding future research and monitoring priorities.

17.1.5.5 Conservation Targets for the Nature Reserve

Specific conservation targets for the ANR are required to develop a strategy linked to budget and resources, to allow for monitoring and evaluation, as well as policy improvement.

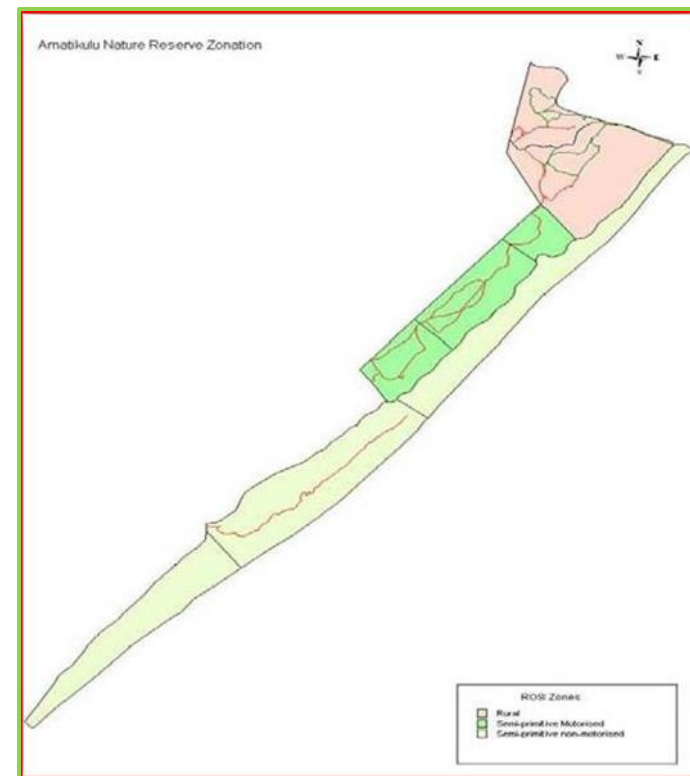
Below is a summary of the conservation targets, although more detail can be found within the ANR IMP.

- Objective: Conserve the endangered and critically endangered Veld types in ANR:
 - ANR contribute 0.73 % to the provincial remains.
 - ANR contribute 1.0% to the provincial remains.
- Objective: To conserve critically endangered and endangered Red Data plant species.
 - ANR needs to conserve this species in good condition. Species list to be determined.

17.1.5.6 Zonation

The Recreation Opportunity Spectrum (ROS) provides visitors to Protected Areas with a range, or continuum of choices based on their personal recreational needs. People differ and while some seek unspoilt wilderness that provides solitude and an experience close to nature, others feel insecure in that environment. Different categories or zones of Protected Areas are therefore defined which describe the level of development allowed in each zone. The plan below illustrates the main recreation zones and is further explained within the table that follows.

Figure 10: Boundary line: Amatikulu Nature Reserve



Source: Amatikulu Nature Reserve – Integrated Management Plan 2009-2013

Table 5: Amatikulu Nature Reserve Zonation System

Category	Criteria To Be Used For Zonation Setting	Descriptions (From ROS Handbook)
Semi-Primitive Non-motorised	Closely related to the above zone, but usage of formalized trails at a high intensity – concreting/rock-packing of trails Natural environment experience, non-motorised use, usually a buffer between Wilderness and semi-primitive wilderness/roaded natural areas Visual and audio impact from outside, at a short distance (< 5km) May be hiking huts or other types of low scale accommodation, possible field ranger outposts.	Area is characterized by a predominantly natural or natural appearing environment of moderate to large size, interaction between users is low, but there is often evidence of other users. The area is managed such that minimum on-site controls and restrictions may be present, but are subtle. Motorised use is not permitted
Semi-Primitive Motorised	4x4 trails and their area of impact (audio and visual) Visitor and management tracks and their zone of visual and audio impact (GIS to be used to	Area is characterized by predominantly natural or natural appearing environment of moderate to large size. Concentration of users is low, but there is often evidence of other

	determine exact range of impact, hence an initial distance of 100m other side has been set) Rustic accommodation or low-level, low intensity tourism nodes (no bigger than 10 – 20 beds).	users. The area is managed in such a way that minimum on-site controls and restrictions may be present, but is suitable. Motorised use is allowed
Rural	A rural recreational node/area, rather than as a nature-based experience. Resort type development rather than a nature-based tourism facility.	Area is characterized by a substantially modified natural environment. Resource modifications and utilization practices are to enhance specific recreation activities and to maintain vegetative cover and soil. Sights and sounds of humans are readily evident and the interaction between users is often moderate-high. A number of facilities are designed for use by a large number of people. Facilities are often provided for special activities. Moderate densities are provided far away from developed sites. Facilities for intensified motorized use and parking are available.

17.1.5.7 Community and Stakeholder Participation

The ANR IMP already developed/Constituted a number of forums. These forums are listed below, and will be encouraged through the SDF process to continue its function of ensuring integrated planning.

Table 6: Participation Structures

Local board	Community participation in the park is realised, mainly, through a Local Board which is established in terms of Chapter 5 of the KZNNCMA. The EKZNW Policy on Conservation Partnerships provides an operational relationship framework for the park and its Local Board to ensure effective community participation in the management of the park. Currently the HiP Local Board is operational. It is imperative that this forum is supported and continues to exist.
Community levy trust fund	Communities adjacent to the park benefit from income generated by the park through a community levy paid by visitors. These funds are administered through the Community Trust Fund and provided to communities for development needs as prescribed by EKZNW Board Policies.

Source: ANR IMP

17.1.5.8 Eco-Cultural Tourism and Marketing

Eco-cultural tourism and marketing will be considered within the framework of, amongst others, Board Policy E1 to E19 with regard to

Commercial Operations (Appendix 1 Item 2). (Accessed EKZNW Intranet on 9/08/2009)

EKZNW has the mandate to sustainably develop ANR within the framework of its approved IMP and Concept Development Plan (CDP). This will be undertaken to fully realise its eco-cultural tourism and associated income-generating potential, while respecting and giving access to the Nature Reserve's natural and cultural heritage features.

To fulfil this mandate, and in accordance with NEMPAA, EKZNW will initiate the compilation of a CDP. It will address future new development as well as the upgrading and maintenance of all existing infrastructure including tourist facilities.

The CDP will be guided by the framework of the ANR Mission, Management Objectives, Zonation and Management Policy Guidelines as adopted and approved for this IMP. The approach adopted in the compilation of the CDP will involve an objective and integrated assessment of the Nature Reserve in terms of its natural and cultural heritage sensitivities, management and bulk infrastructure, its particular sense of place and its visitor infrastructure and facilities.

EKZNW will strive to provide a quality eco-cultural tourism experience for visitors to ANR. A range of appropriate facilities and services will be provided for the use of visitors to ANR. While some of these will serve recreational and social needs, emphasis will be placed on facilities and services that enrich the visitor's understanding and appreciation of the Nature Reserve.

In order for ANR to realise its full income-generating potential:

- The quality and standard of facilities will be maintained at a high level.

- Professional standard tourism service delivery will be provided.
- Its tourism opportunities will be competitively and effectively marketed.
- Cultural heritage tourism will require emphasis.
- A partnership strategy, that takes full advantage of appropriate opportunities for outsourcing (joint venture or otherwise) needs to be put in place while linkages will be sought with other regional tourism initiatives.
- A visitor orientation and interpretation strategy will be developed and implemented.

The above policies and values will be supported by an ANR Eco-cultural Tourism Development and Marketing Strategy that will be compiled and approved. Projects proposed to develop eco-tourism within the park include the following:

Table 7: Amatikulu Reserve Projects

Policy File No.	COMMERCIAL OPERATIONS
E 1	Concessions for Welfare Groups.
E 2	Hiking and Mountaineering.
E 3	Educational Concessions.
E 4	Club Facilities within Board Areas.
E 5	Hutted Camps.
E 6	Joint Venture Scheme.
E 7	Allocation of Sites in terms of the Joint Venture Scheme.
E 8	Access to Protected Areas through Unofficial Entry Points.
E 9	Visitor Facilities Management by Ezemvelo KZN Wildlife.
E 10	Lease of Lakeshore at State Dam Protected Areas.
E 11	Execution, Control and Management of Leases and Concession Contracts (excluding Biodiversity Conservation Partnerships and Leases of Wildlife).
E 12	Private Sector Reservations Policy.

Policy File No.	COMMERCIAL OPERATIONS
E 13	Partnerships for Eco-Tourism Development within or Adjacent to Protected Areas.
E 14	Discounting of Tariffs for Walk-in Guests.
E 15	Ecotourism Discounting Strategy.
E 16	Travel Trade Commissions: Tour Operator/ Travel Agency.
E 17	Policy and Procedure for the establishment and monitoring of Commercial Operations Public Private Partnership (PPP) Agreements.
E 18	Administrative and operational policy on Professional hunting in South Africa.
E 19	Commercialisation.

Source: Amatikulu Nature Reserve – Integrated Management Plan 2009-2013

The Management plan indicates a proposed enlargement of the reserve area, and although only a proposal, the extension of this reserve will be investigated as part of the SDF development.

17.1.6 Air Quality

Sulphur Dioxide (SO₂) has a 10-min standard of 191 ppb, a one hour standard of 134 ppb and a 24 hour standard of 48 ppb. Monitoring data shows no exceeded of the standards. Despite Mandeni being the most industrialised area within the iLembe DM, the levels of sulphur dioxide are low. For the short and medium term exposure periods, ambient levels are a below a safe margin from the SA sulphur dioxide standards.

Despite this being the case, the Mandeni area is known for sulphurous odours due to the SAPPI paper mill. These odours are due to the reduced sulphur compounds. Whilst there is compliance with the priority pollutants, there is an odour problem associated with sulphur based compounds such as hydrogen sulphide and other reduced sulphurs. These odours do characterise this industrial area and have an impact on the local quality of life. There are no objective ambient measurements of these compounds.

17.1.7 Estuaries

Mandeni Municipality has two estuaries, namely the Matikulu/Nyoni Estuary (Situated on the Northern most boundaries of the municipality, and the Thukela Estuary, situated in the southern parts of the municipality.

Although more detail is provided in sections below, the following table outlines the general Characteristics of the Estuaries.

Table 8: Summary of Estuary Characteristics

	THUKELA	MATIKULU / NYONI
Estuary Type	River Mouth	Permanently Open
Environmental	Poor	Good

Condition		
Estuary area (ha) (5m contour)	627.2 ha	609.9 ha
Estuary length (km) (5m contour)	35.6 km	79.3 km
Catchment area (km ²)	28 702 km ²	990 km ²
Fish Fauna	Moderate	Good
Water Quality	Good	Not surveyed
Aesthetics	Moderate	Good
Ecosystem threat status	Critically endangered	Least Threatened
Ecological category	C	B
Importance Score	69.3	78.8
National Rank (N=256)	66	39

Source: Environmental Management Framework for iLembe District Municipality

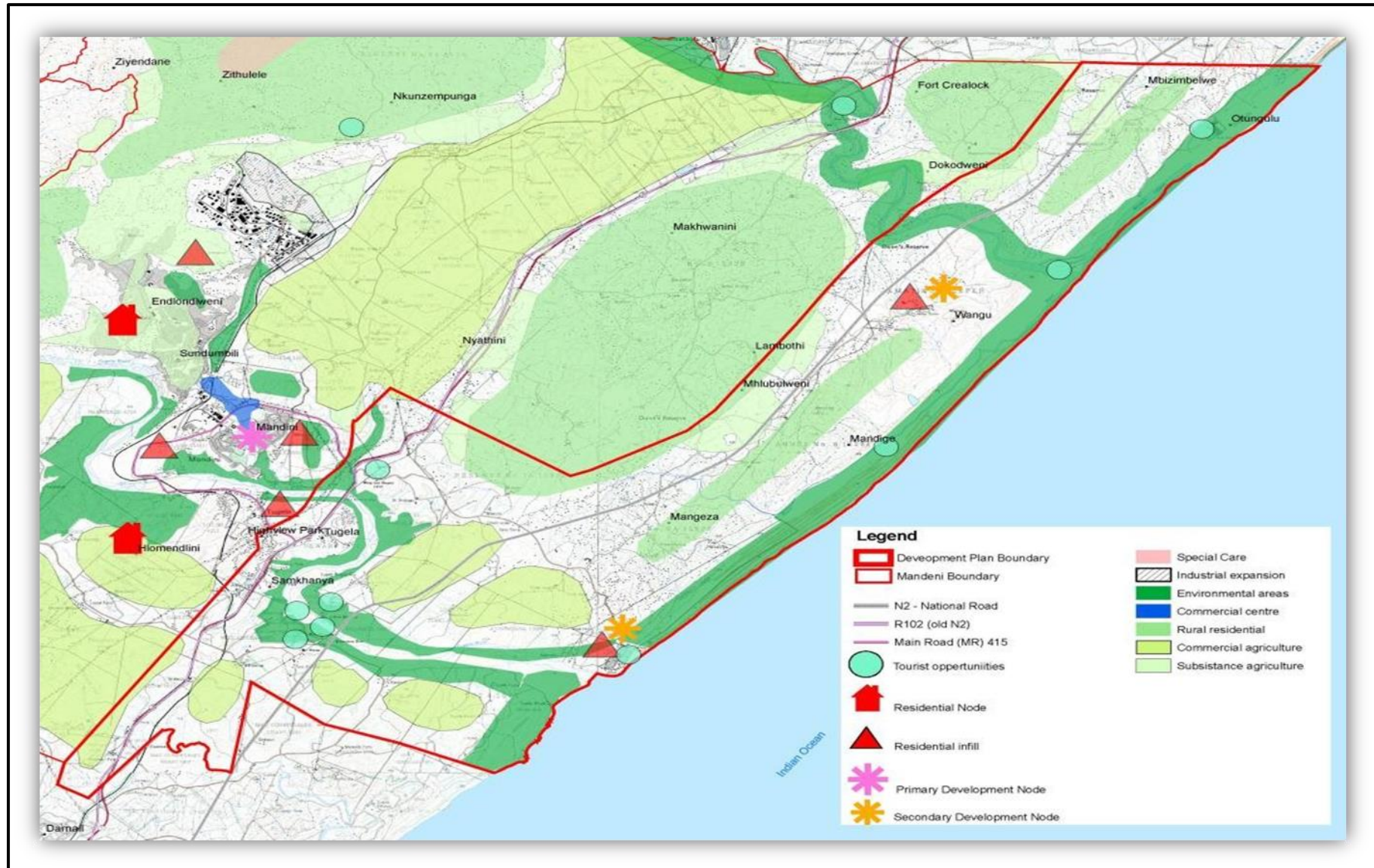
17.1.7.1 Thukela Estuary

The Thukela River is the largest river in KZN and its catchment area was a former designated Water Management Area. It is a critical component of water resource utilisation in South Africa with a number of inter-basin transfer schemes including the Vaal, Mhlathuze and Mgeni river systems. Overall it traverses three municipal districts from its origin in the Drakensberg Mountains before emerging at the coast as a river mouth estuary. It is one of only three river mouth systems in KZN, the others being the Mvoti and the Mfolozi estuaries (Royal HaskoningDHV, 2013). The image below depicts the Tugela Estuary.

Major issues for this estuarine system are excessive siltation and poor water quality (Whitefield, 2000) as a result of the cumulative catchment impacts, namely, poor veld management and

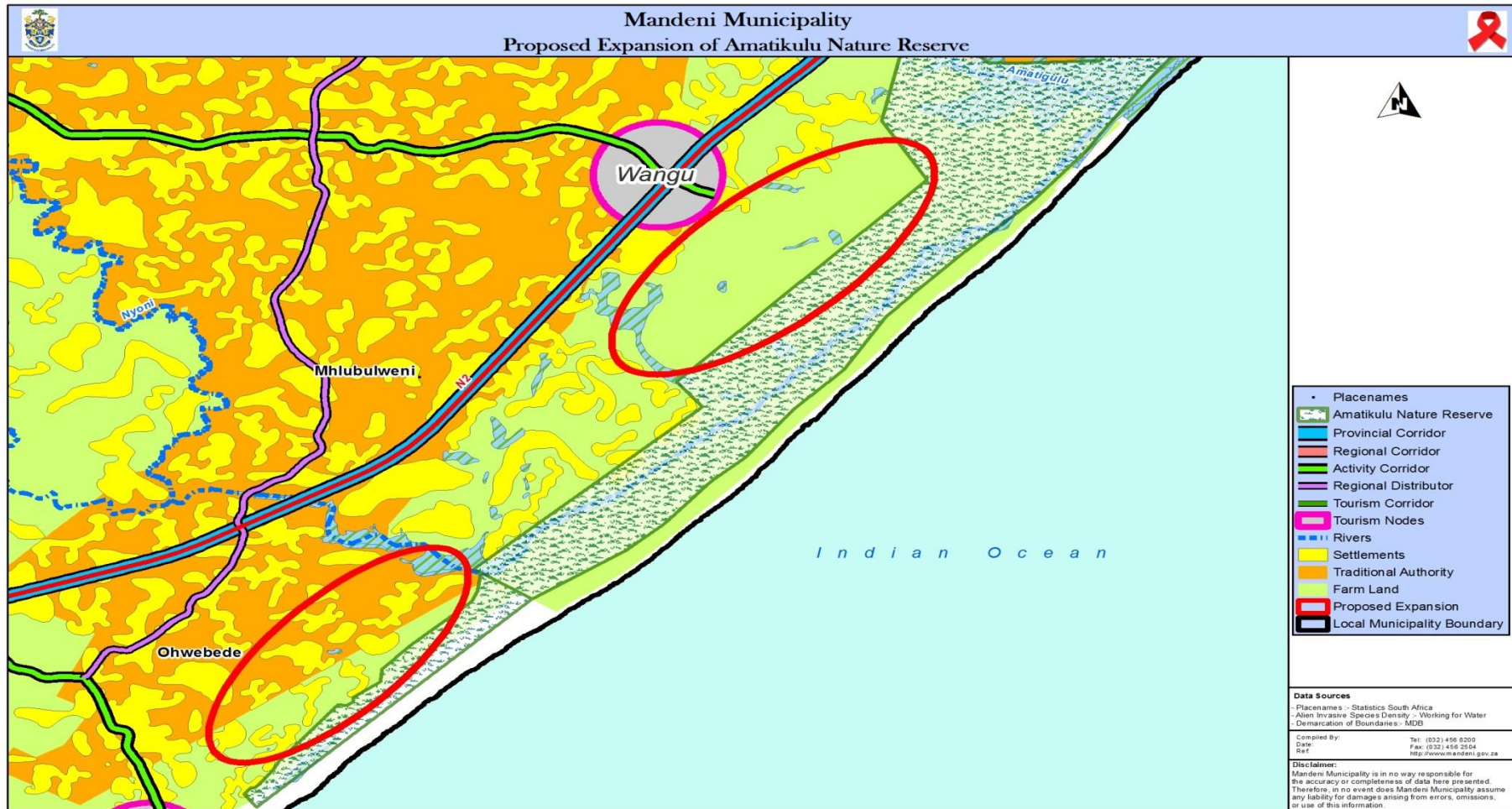
overgrazing; run-off from agricultural irrigation; organic pollution; industrial spills and effluent discharges; mining, mining decant and industrial activities; and urban settlement with poor sanitation resulting in faecal contamination.

Map 15: Siyaya Coastal Development Plan – Analysis Map



Source: Siyaya Coast Development Plan

Map 16: Proposed Expansion of Matikulu Nature Reserve



Source: Environmental Management Framework for iLembe District Municipality

17.1.7.2 Expansion of Matikulu Nature Reserve

In general, it is particularly important from a conservation perspective due to its large size, the rarity of this estuarine type and the biodiversity which it supports, specifically birds (Turpie and Clark 2007). Harrison *et al* (2000) classified the fish community health and aesthetics as moderate, and water quality as good despite significant anthropogenic impacts (Royal HaskoningDHV, 2013). An intermediate ecological reserve determination has been completed for the Thukela Estuary and it has been classified as a Category C system, i.e. **moderately modified** (DWA, 2004). It is considered **critically endangered** because it has lost much of its original natural habitat, such that ecosystem functioning has collapsed and species associated with the ecosystem have been lost or are likely to be lost (Van Niekerk and Turpie, 2011).

17.1.7.3 Matikulu/Nyoni Estuary

The Nyoni River is considered a “*natural phenomenon*” because of its unique channel configuration that runs parallel to the coastline for approximately 8km before joining the Amatikulu River forming the estuary (Mandeni IDP, 2011). This joined system is classified as a permanently open estuary despite the frequent occurrence of closed conditions. Siltation is of concern (Whitfield, 2000), likely ascribed to poor farming practises, as the catchment is characterised by sporadic rural settlement and subsistence farming.

The Amatikulu prawn farm, which ceased production in 2005, abstracted water and discharged treated wastewater into the system near the mouth (Ezemvelo, 2006). It is noted that an Aquaculture Development Zone has now been planned for Amatikulu by the Department of Forestry and Fisheries. The

hatchery, located south of the mouth, has been converted into holiday accommodation. The water quality may be potentially enriched by organic pollution and industrial effluent from the Amatikulu Sugar Mill. Most of the Nyoni ‘arm’, and a portion of the lower reaches of the joined system, is protected by the Amatikulu Nature Reserve (Royal HaskoningDHV, 2013).

The ecological health of the Matikulu/Nyoni Estuary has been estimated as **largely natural with few modifications** (Category B) (Turpie and Clark, 2007).

The table below summarises the issues experienced within both the estuaries.

Table 9: Environmental Issues of the estuaries

Estuary	Siltation	Agricultural encroachment	Artificial Breaching Urban encroachment	Mining	Nutrient loading	Faecal contamination	Impoundments / weirs	Abstraction	Chemical contamination	Invasive	Aquaculture
Matikulu/Nyoni	X	X			X	X		X			X
Thukela	X	X		X	X	X	X	X	X	X	

Source: Environmental Management Framework for iLembe District Municipality

The bullet points below provides opportunities for the for estuaries of the Mandeni local municipality. It is noted that based on future development scenarios, opportunities can be deemed as constraints and vice versa.

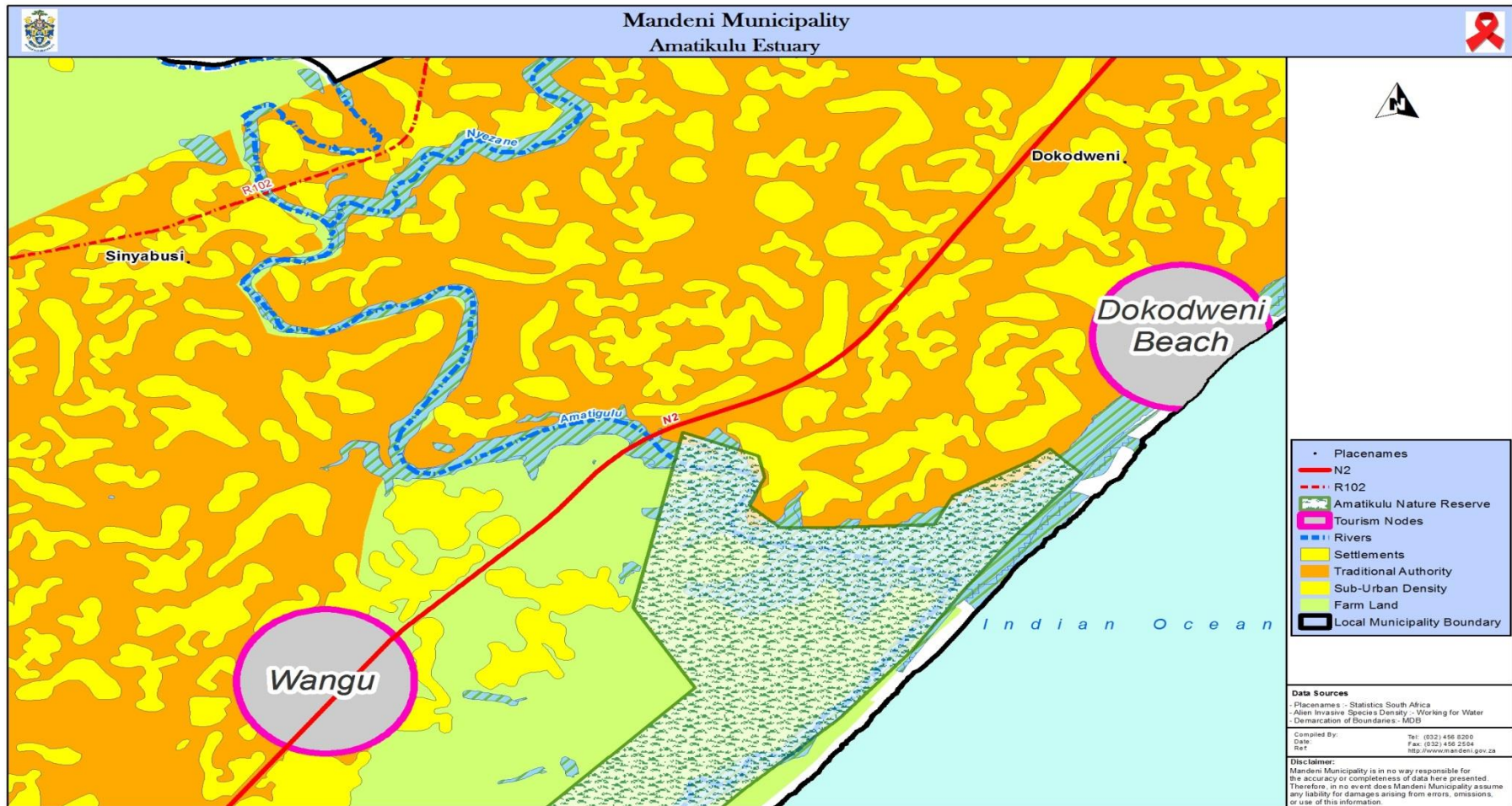
- Reverse and improve poor estuarine health;

- Improve ecosystem services;
- Increase nursery function and improve local fishing industry;
- Conserve estuaries and associated environs and high biodiversity through formal protected areas;
- Increase protected area coverage of the Amatikulu Nature Reserve;
- Facilitate appropriate and environmentally sensitive recreation;
- Facilitate appropriately situated development;
- Conduct research to increase knowledge on estuarine systems;
- Preserve sense-of-place;
- Maintaining added property value due to good visual aesthetics;
- Continue existing sugar cane cultivation as economically viable production units for the medium term, provided high standards of management are maintained (setback from estuarine functional zone);
- Improve treatment of wastewater and strict management of industrial effluent;

- Protect human life and property by introducing development setbacks in the estuarine functional zone;
- Promote education and awareness raising on the value of estuaries;
- Encourage responsible eco-tourism;
- Implement potential Local Economic Development through sustainable prawn farming;
- Implement sustainable livelihood opportunities (e.g. guided walks);
- Promote co-operative governance via establishment of estuary advisory forums; and
- Implement integrated catchment-estuarine management.

The figure below depicts the Nyoni Estuary.

Map: 17 Matikulu/Nyoni Estuary 1



Source: Mandeni Municipality GIS & Environmental Management Framework for iLembe District Municipality

17.1.7.4 iLembe Environmental Management

The iLembe District Environmental Management Framework suggests relevant environmental protection areas which need to be considered before any development is proposed or approved. Further detail in terms of specific areas and resources will need to be established via an environmental management plan. This is discussed further in Chapter 9 of this document.

The Environmental Management Framework has two components that need consideration, namely the **“Desired State of the Environment”**, which the SDF needs to work towards, and the **“Environmental Management Plan”**, of which aspects with the spatial manifestations needs to be incorporated in the SDF

Particular attention is required regarding the appropriate protection, management and rehabilitation of natural areas, river valleys, areas of natural beauty, etc. in the western parts of the District. These elements will contribute to establishing recreational and tourism opportunities that link into the more traditional beach-orientated activities.

The Mandeni SDF has taken note of the environmental, tourism and agricultural opportunities and constraints as discussed within the document.

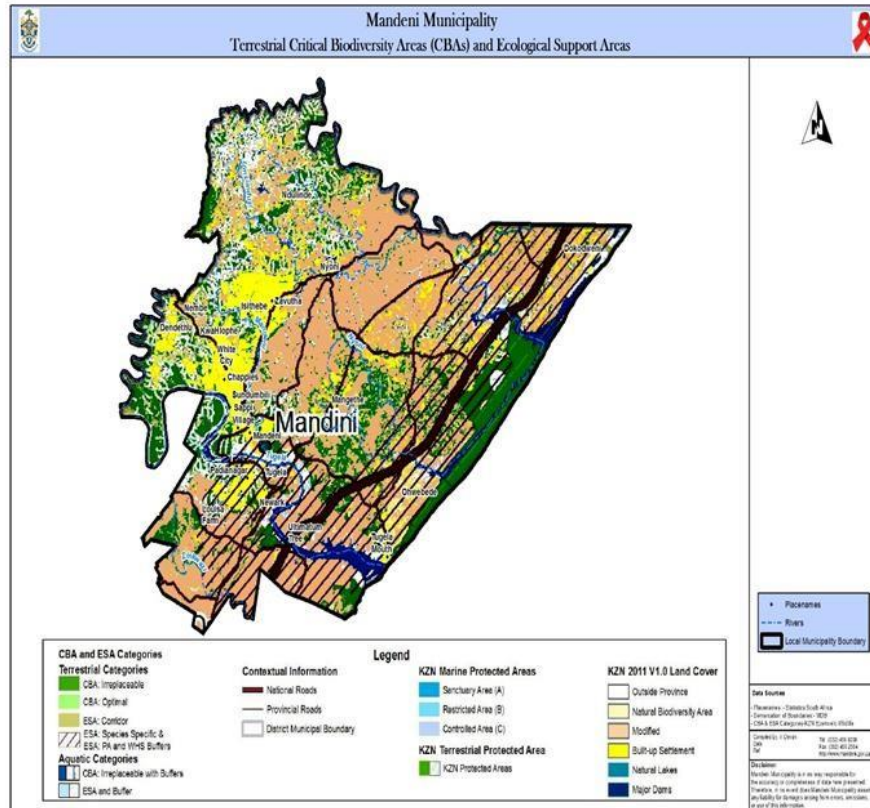
2.3.13. BIODIVERSITY MANAGEMENT

The iLembe District has finalised the regional Environmental Management Framework (EMF) which indicates a number of critical biodiversity occurring within the Mandeni Municipality. In addition,

the iLembe Biodiversity Sector Plan (BSP) has been finalised by the Ezemvelo KZN Wildlife, as an institution responsible for biodiversity management. This a planning tool will be used to manage biodiversity, and as a precursor to a bioregional plan, which is required as per Section 48 of National Environmental Management Biodiversity Act, 2004 and the Bioregional Guidelines (DEAT, 2009).

These tools will assist the Municipality to set out the baseline information for the conservation of the critical biodiversity within the iLembe and the Mandeni Municipality, specifically. A map is provided by the BSP which indicates the Critical Biodiversity Areas and Ecological Support Areas. The Map (as attached below) is accompanied by the land use planning and decision making guidelines, to inform land use planning, as well as natural resource management by a range of sectors whose policies and decision impact on biodiversity.

Map 18: Mandeni Critical Biodiversity Areas and Ecological Support Areas



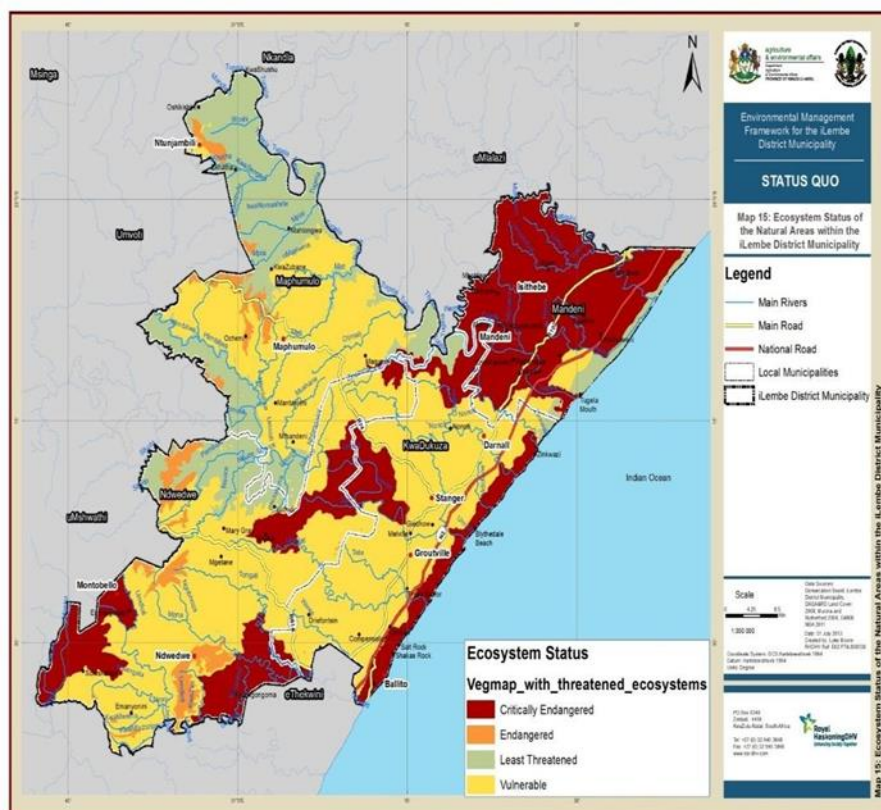
2.3.14. Conservation Strategies

Conservation is a critical programme for biodiversity management. There are three (3) Nature Reserves existing within the Municipality that is Harold Johansson Nature Reserve, AmaTigulu and Ngwenya Conservation Area.

Furthermore, the Municipality is willing to contribute to the objectives of the National Protected Areas Expansion Strategy (NPAES) of having 50% of land protected by 2020. In that light, the Environmental Management Framework has identified certain areas, within the Municipality, that are having conservation value and such area can be introduction to the programme of the National Protected Area expansion or in the stewardship programme.

b) Species in details

A number of threatened species also occurs within the Municipality as indicated in the map below:



MAP 19: STATUS OF THE ECOSYSTEM

c) Summary of Biodiversity in Mandeni Municipality

Mandeni Local Municipality	
Municipal Area	58 226.3 ha
Remaining natural areas	19 703.4 ha (33.8% of municipality)
Areas where no natural habitat remains	38 013.9 ha (65.3% of municipality)
Protected areas	3 reserves covering 1816ha (3.6% of municipality) - Amatikulu Provincial Nature Reserve, 1476 ha (2.92% of municipality) - Harold Johnson Provincial Nature Reserve, 104ha (0.17% of municipality) - Red Hill Provincial Nature Reserve, 236ha (0.49% of municipality)
Biomes	- Indian Ocean Coastal Belt 54050.4ha (92.83% of municipality) - Savanna 3749.8ha (6.44% of municipality)
Vegetation Types	- Eastern Valley Bushveld 3749.8ha (6.44% of municipality) - KwaZulu-Natal Coastal Belt 46984.4ha (80.69% of municipality) - Maputaland Coastal Belt 5479.4ha (9.41% of municipality) - Northern Coastal Forest 1203.8ha (2.07% of municipality)

	- Subtropical Coastal Lagoons 284.3ha (0.49% of municipality) - Subtropical Dune Thicket 98.5ha (0.17% of municipality)
Threatened Terrestrial Ecosystems	Critically endangered (2) - Eshowe Mtunzini Hilly Grasslands - 16053.2ha (27.57% of municipality) - North Coast Forest Collective - 201ha (0.35% of municipality) Endangered (1) - KwaZulu-Natal Coastal Forest - 14.5ha (0.02% of municipality) Vulnerable (1) - KwaZulu-Natal Coastal Belt - 529.2ha (0.91% of municipality)
Estuaries	2 - Matigulu/Nyoni - Permanently open estuary – good condition - Tugela/Thukela - River mouth - fair condition

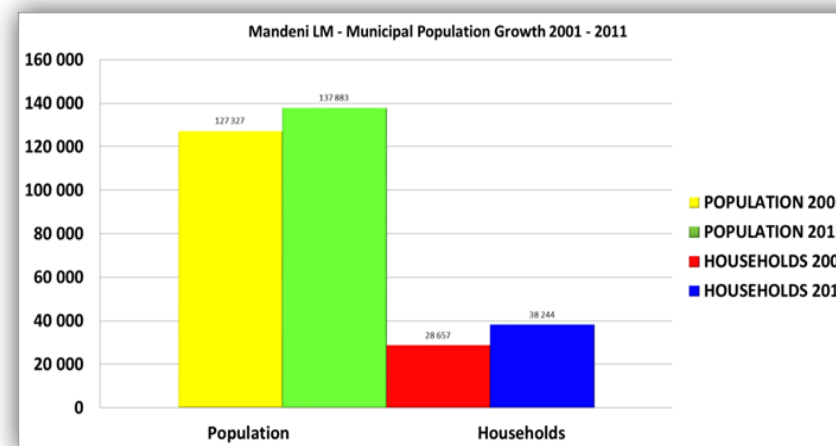
Table 10: Summary of Biodiversity issues within the Municipality

2.3.15. Human Resources

17.1.8 Population

According to the 2001 Census data, the Mandeni Local Municipality had a total population of 127 327, which increased to 138 078 in 2011 which is a positive growth of 0.08% per annum and an increase in population of 10,751. The households increased from 28,675 to 38,235. The municipal population and household increases are depicted in the graph below.

Graph 1: Population and Household Increase



Source: Stats SA – Census 2001/2011

The Graph below depicts the distribution of the above increase in population.

An increase in population can be observed in just over 50% of the municipal wards, namely wards 4, 5, 7, 8, 10, 11, 12, 14, 15, 17.

Graph 2: Population Distribution

Source: Stats SA – Census 2001/2011

Drastic increase in population can be observed in wards 7, 11, 12 and 17. The areas that experienced the highest amount of growth therefore are:

Table 10: Wards Experiencing Growth

Ward	Locality
4	Southern Expansion of Tugela Town, south of Tugela River.
5	Largely Rural Ward which provides expansion area west of Sundumbili B.
7	Sundumbili CBD & Residential Surrounds
8	Large ward situated east and west of the R102 and N2. Assumed increase in population is east of R102 in rural areas including Amatikulu Reserve, Isulabashe, Ngulule, Fort Crealock.
10	Endlondlweni, which is situated between Sundumbili and Isithebe Industrial Estate.
11	Mambane. Residential Area directly north of iSithebe Industrial Estate.
12	A Large Ward. Includes the expansion of Sundumbili B in a northern direction. Residential area directly west of iSithebe Industrial Estate.
14	Sundumbili B.
15	Sundumbili A.
17	Residential areas directly north of iSithebe Industrial Estate

Source: Black Balance Projects / Stats SA Census 2011

The growth rate of 0.08% per annum was utilised to estimate a population growth for the 5 year implementation cycle of the reviewed SDF.

2.3.16. Demographics

As per the Community Survey 2016 conducted by Statistic South Africa, the Mandeni Local Municipality had experienced a population growth of approximately 8% from the last Census conducted in 2011. In the previous census the municipality had a population of 138 078 and now is at 147 808. The increase in population growth for the municipality has triggered challenges especially in the provision of basic services and demand for employment opportunities.

Table 11: Population distribution

Name of the Municipality	Black african	Coloured	Indian/asian	White	Total Population
KZN291: Mandeni	143563	759	2676	809	147808
KZN292: KwaDukuza	211078	2557	41759	21325	276719
KZN293: Ndwedwe	142104	163	593	257	143117
KZN294: Maphumulo	89884	30	36	19	89969

Source: Statistic SA: Community Survey, 2016

The table below provides an indication of the total number of households per municipality in the ILembe district. Eskom classifies areas in terms of Rural or Urban depending on the level of service they require.

The 2007 Eskom Household Count identified 100% of houses as being rural in Maphumulo and Ndwedwe. In the case of KwaDukuza and Mandeni those areas identified as urban in the 2007 Rural Settlement Survey was excluded from the Rural Household Count.

Table 12: Rural Urban Household Distribution in ILembe Municipalities

MUNICIPALITY	CS HOUSEHOLDS	2007 RURAL HH COUNT	ADJUSTED TOTAL HHs	% RURAL
Maphumulo	19,934	18,376	18,376	100%
Ndwedwe	26,409	31,422	31,422	100%
Mandeni	33,702	14,642	33,702	43%
KwaDukuza	44,481	6,497	44,481	15%
ILEMBE	124,526	70,937	127,981	55%

Source: ILembe Regional Spatial Plan Consolidated Report (July 2013)

Regardless of ILembe being viewed as one of the urbanised Districts in KwaZulu-Natal an estimated 55% of its population still resides in the rural areas, due to the close proximity to perceived employment opportunities in the more urban areas of the district like Mandeni and KwaDukuza. Addressing the needs of rural people and ensuring their integration into the planning for the District as a whole will therefore be important.

Table 14 below applies directly to KwaZulu-Natal and illustrates that estimated growth rates for this province is substantially lower than that for the rest of South Africa.

Table 13: Kwazulu-Natal Population Growth Rates 2006 to 2016

GENDER	2006	2016	Est. Annual Growth
Male	4,658,470	4,855,675	0.42%
Female	5,133,345	5,248,674	0.22%
Total	9,793,821	10,106,365	0.31%

Source: ILembe Regional Spatial Plan Consolidated Report (July 2013)

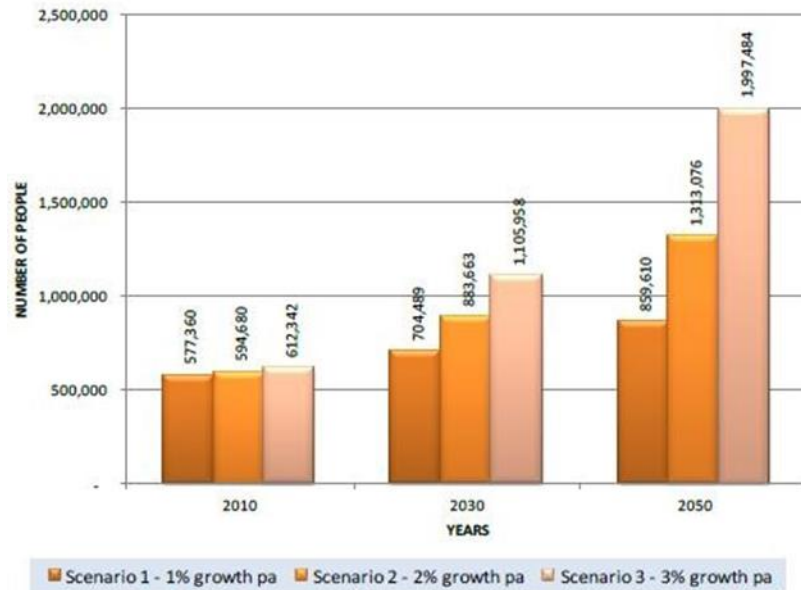
The Centre for Actuarial Research suggested that the annual population growth rate in KwaZulu-Natal will be as low as 0.3% with the growth rate for women being at a lower 0.22%. As a result of the location of the ILembe District in relation to eThekweni and uMhlatuze, as well as its location in relation to Swaziland and Mozambique, and its location on the coast, inter provincial and inter regional migration may impact on future development in the area. Considering development dynamics in the district intra district migration may also impact on future population trends.

17.1.9 The 2050 Population

According to the StatSA 2007 community survey the population was 560 380 people for the district of ILembe. Census 2011 statistics more recently confirmed that the 2011 ILembe population was 606 000, confirming a growth rate of just less than 3% per annum for the period.

The 2050 planning is based on the High Road Scenario which anticipates the population of ILembe District Municipality to be approximately 2 million. The graph below compares the impact of the various growth scenarios on overall population numbers within the ILembe district Municipality.

+Graph 3: Overall Population Scenarios for Ilembe 2010 to 2050



Source: Ilembe Regional Spatial Plan Consolidated Report (July 2013)

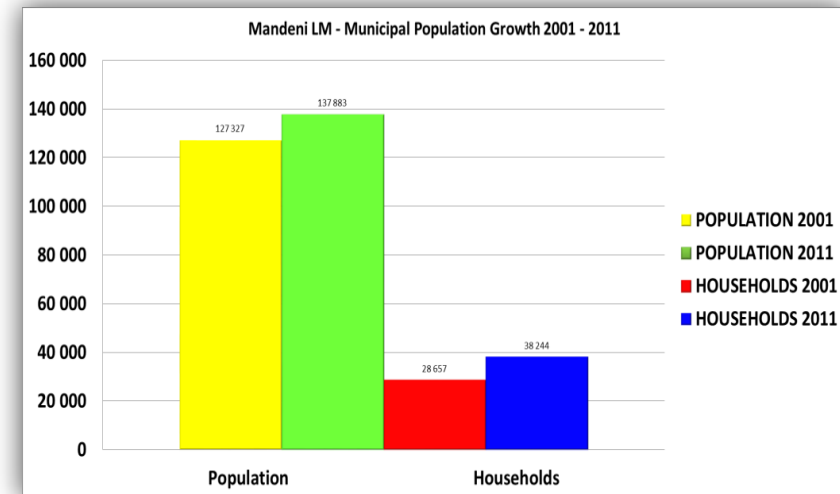
17.1.10 Age & Gender Distribution

The Graph below depicts an estimated split in gender. As indicated the statistical data was used to portray a trend and the % split between male and female for 2001 and 2011.

It is clear that females are significantly higher in numbers than males.

Whilst the graph shows an expected linear increase in population per age group in general, it depicts a distinct increase in ages 0-4.

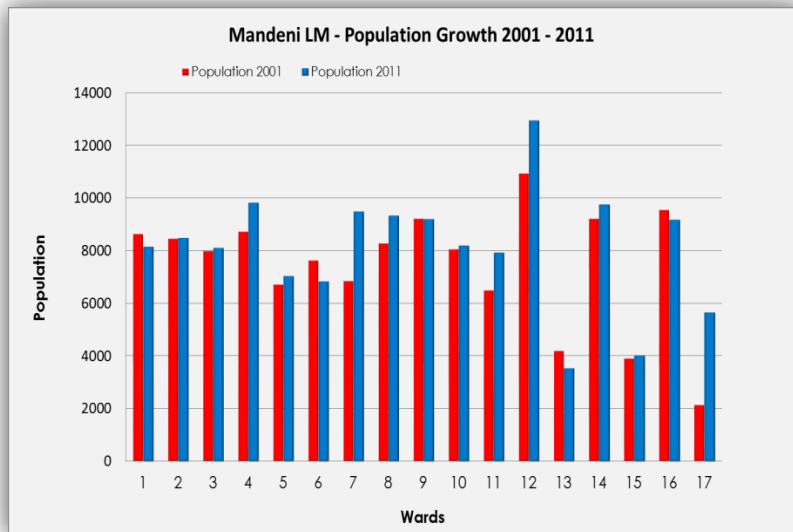
Graph 4: Age & Gender Distribution



Source: Stats SA – Census 2001/2011

The graph below further depicts that 51% of the population is of employable age.

Graph 5: Age Distribution



Source: Stats SA – Census 2011

17.1.11 The 2050 Population Profile

The population profile of the Ilembe District, and specifically the population age profile, is expected to change substantially over the next 40 years. This changing profile will inform strategic planning decision-making and will be impacted on by the specific population dynamics including:

- Declining fertility rates;
- Increasing crude death rates;
- Substantially lower life expectancy; and
- An ageing population.

Based on this it is suggested that the 2050 population pyramid will have the following features:

- The largest proportion of the population will still be in the under 30 age category;
- The declining fertility rates will start to have an impact on the under 10 category with this no longer being the largest grouping;
- A large percentage of the population will be in the older age categories; and
- The distribution between men and women will be almost equal considering specifically the impact of HIV/AIDS on the female population.

Figure 11: The Anticipated 2050 Ilembe Population Pyramid



Source: ILembe Regional Spatial Plan Consolidated Report (July 2013)

The table below reflects the anticipated population distribution in real terms considering the High Road Scenario of 3% population growth.

Table 14: High Road Scenario Population Age Distribution In 2050

AGE	MALE	FEMALE	TOTAL
0 – 10	199,748	199,748	399,497
11 – 20	209,736	209,736	419,472
21 – 30	189,761	189,761	379,522
31 – 40	139,824	139,824	279,648
41 – 50	99,874	89,887	189,761
51 – 60	79,899	69,912	149,811
61 – 70	39,950	39,950	79,899
71 – 80	29,962	29,962	59,925
81 – above	19,975	19,975	39,950
TOTAL	1,008,729	988,755	1,997,484

Source: ILembe Regional Spatial Plan Consolidated Report (July 2013)

17.1.12 Household Size

The average household size of the Mandeni Local Municipality was calculated by subdivision of the population figures with the number of households recorded. The average household size is therefore is 3.6 persons per household.

17.1.13 Population Density

Population density is measured as number of people per Hectare, and is outlined in the table below. The wards highlighted in red depict the higher population densities (double figures). Some of the

ward are very big and includes vast open spaces. An example of this is Ward 3 which includes Mandeni Town as well as Tugela Mouth of which both are settled densely when considered separately. The "Settlement" Column therefore provides some perspective on the areas is included, and what the actual densities should be.

Table15: Population Densities per ward

Ward	Population	Ha	Pop / Ha	Settlement
1	8 171	3 429.2903	2.38	Dokodweni
2	8 501	5 761.7693	1.48	Mangeza
3	8 120	7 343.8037	1.11	Mandeni Town / Tugela Mouth
4	9 824	8 648.5191	1.14	Tugela Town / New Ark
5	7 052	3 019.2440	2.34	Mathonsi TA / Khovothi
6	6 859	5 656.5627	1.21	Sikhonyane TA
7	9 504	247.7251	38.37	Sundumbili CBD & Residential Surrounds
8	9 345	7 403.3496	1.26	Nsunduzane
9	9 217	3 417.0845	2.70	Mhlubulweni
10	8 206	3 540.8136	2.32	Nyoni / Endlondlweni
11	7 935	2 853.3722	2.78	Mhambuma / Mambane
12	12 945	1 072.3060	12.07	Indlondlo / Sundumbili B
13	3 560	44.3487	80.27	Sundumbili B
14	9 764	118.5033	82.39	Sundumbili B
15	4 041	69.3866	58.24	Sundumbili A
16	9 180	1 378.9129	6.66	Nkunzempunga
17	5 659	543.1459	10.42	iSithebe
18	-	-	-	

Source: Black Balance Projects / SA Census 2011

When compared to the image below, the distribution of households can clearly be seen, with the higher densities close to the main economic activity areas.

Figure 15: Mandeni Household Distribution

WARD NO	Black African	Coloured	Indian	White	Other
1	8 135	9	16	11	2
2	8 456	22	12	12	2
3	5 782	413	797	1 128	43
4	8 275	129	1 336	84	28
5	7 019	13	14	6	2
6	6 849	1	5	3	-
7	9 487	9	7	1	12
8	9 305	7	14	20	12
9	9 170	27	10	9	5
10	8 165	6	24	11	10
11	7 918	4	6	7	4
12	12 919	10	9	7	12
13	3 549	11	-	-	-
14	9 727	24	5	9	10
15	4 029	8	3	1	17
16	9 133	20	21	6	5
17	5 641	7	8	2	32
* New ward 18	*6786	-	-	-	-
TOTAL	*147 808	720	2 287	1 317	196

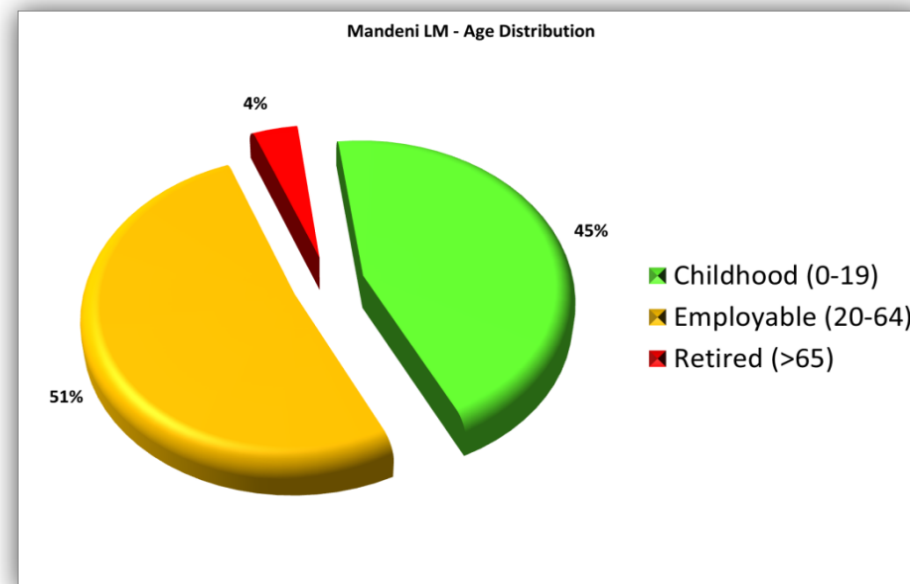
Source: Stats SA 2011

17.1.14 Levels of Education

The graph below depicts the level of Education for the Mandeni Municipality as a whole. It depicts the general low levels of

education with only 31% of the population completing Secondary School Education, with only 4% having tertiary education.

Graph 1: Levels of Education

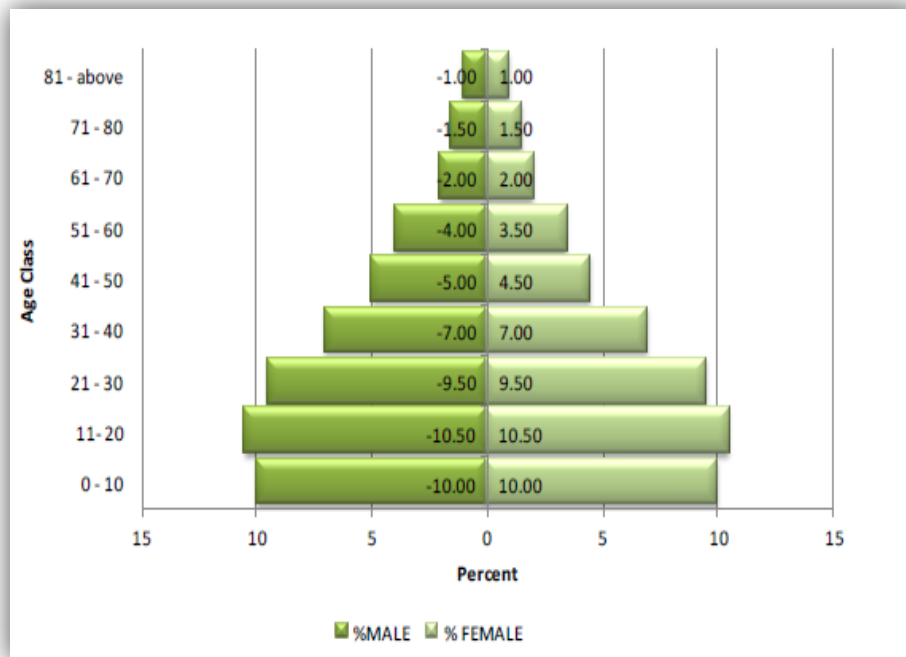


Source: Stats SA – Census 2011

The graph below depicts the difference in Education levels between the various wards. The wards with the highest levels of education are wards 3, 7, 13, 14, 15, which includes all of the urbanised areas of the municipality.

As will be seen in Section 2.4 – Social Resources, there are sufficient number of schools to provide education. Subsequently the quality of education and the social circumstances resulting in lower levels of education needs to be considered and addressed.

Graph 2: Levels of Education per Ward



Source: Stats SA – Census 2001/ 2011

2.3.17. Social Resources

17.1.15 Land Tenure

The municipality has a wide range of ownership types, ranging from Private Ownership, Community Trusts, Closed Corporations, Government Entities and Traditional Councils.

The ownership category with the highest impact on the proposed expansion opportunities and consolidation of the Isithebe and Mandeni nodes is the Traditional Areas and the Ingonyama Trust.

Large portions of land in the Primary Node of the Municipality, namely Sundumbili is registered in the name of the Ingonyama Trust Board.

The full Valuations roll was not available during compilation of this report, and will be updated shortly. The ownership is an important factor to consider when planning for expansion of the development of the Municipality.

17.1.16 Settlement Pattern

Land tenure pattern within the Municipality generally dictates the land usage and the Mandeni Municipality is made up of three Traditional Authority areas where settlement is controlled by Traditional Authorities according to a traditional system of land allocation by the Nkosi to the families of his tribe. These TA areas cover approximately 63% of the total area where the State and the Ingonyama Trust own the majority of the land within Municipality and coastal and inland reaches of Mandeni (49%). TA areas are generally characterised by subsistence farming activities, harsh topographical conditions and the worst of agricultural potentials with the exception of the Macambini Tribal Authority which lies along the coast. Large areas are under-utilised with traditional settlement patterns and low densities which are not conducive to the provision of infrastructural services. Smaller rural nodes, such as, Tribal courts, trading stores or clinics are scattered through the TA. Traditional housing dominates, but there is a range of other formal

and informal structures proliferating in these predominantly rural areas.

The table below depicts the distribution of households with a clear low density sprawling pattern in the rural TA areas, with high density of over 8 units per Ha in the urban areas.

17.1.17 Housing

17.1.17.1 Housing Demand

Mandeni Municipality doesn't have a register of applicants for housing therefore this register will have to be compiled in order to establish the real current demand. It is recommended that the municipality embark on an intensive registration drive with a time limit. This will enable all the relevant role-players to proceed with the planning of future housing projects in an informed manner, addressing the established demand. In order to proceed with this document it will be endeavoured to establish the current housing demand by making use of the available census data. It can be assumed that all the dwelling types not indicated as Formal in the census figures will be the current demand to be addressed by the housing plan.

The Census Data Distinguishes are between the below mentioned Housing Categories. It is also depicted what is classified as formal and informal housing, in order to determine the housing demand.

Table 11: Formal vs Informal housing Typologies

Formal Dwellings	Informal Dwellings (Need)
House	Traditional
Flat	Settlement

Formal Dwellings	Informal Dwellings (Need)
Dwell Rest	Backyard
Complex	Informal
Semi-Detach	Caravan
Townhouse	Dwell Other
Granny Flat	

Source: Stats SA: Census 2011 Metadata

Based on the Above Explanation, the table below depicts the housing need for each of the wards.

Table 12: housing needs per Ward

Ward	Formal Housing	Housing Need
Ward 1	925	443
Ward 2	1 050	589
Ward 3	2 182	221
Ward 4	2 978	423
Ward 5	484	894
Ward 6	687	710
Ward 7	2 745	750
Ward 8	1 631	466
Ward 9	1 490	360
Ward 10	1 057	1 945
Ward 11	710	1 754
Ward 12	1 557	2 608
Ward 13	1 248	148
Ward 14	3 006	74
Ward 15	1 530	187
Ward 16	1 276	2 423
Ward 17	1 559	2 245

Total	26 115	16 240
--------------	---------------	---------------

Source: Stats SA - Census 2011

The Current housing Sector plan proposed the following projects to be implemented. The status of these projects is unknown and needs to be verified. The Housing Sector Plan further highlighted the following projects proposed for implementation.

17.1.17.2 Housing Projects

The IDP, although the latest document dealing with housing related issues, does not include a list of Housing Projects. Subsequently it is not possible to demine the status of projects proposed by the much older housing sector plan.

The projects as per the housing Sector Plan is presented in the sections below, for verification purposes.

17.1.17.2.1 Recommended housing Projects

The table below highlights the recommended projects as per the current housing sector plan.

Table 13: Mandeni Housing Projects (Housing Plan 2015)

Project	Number of units	Status
Rural housing projects		
Sikhonyane Phase 1	1000	Completed
Mathonsi Phase 1	1000	Completed

Source: Black Balance Projects

Mathonsi/Sundumbili Phase 2	1000	Under-construction
Macambini Ext 2	2000	Under-construction
Inyoni Housing Phase 1-2	1000	Under- construction

Source: Mandeni housing Sector Plan 2015

17.1.17.2.2 Planned Projects

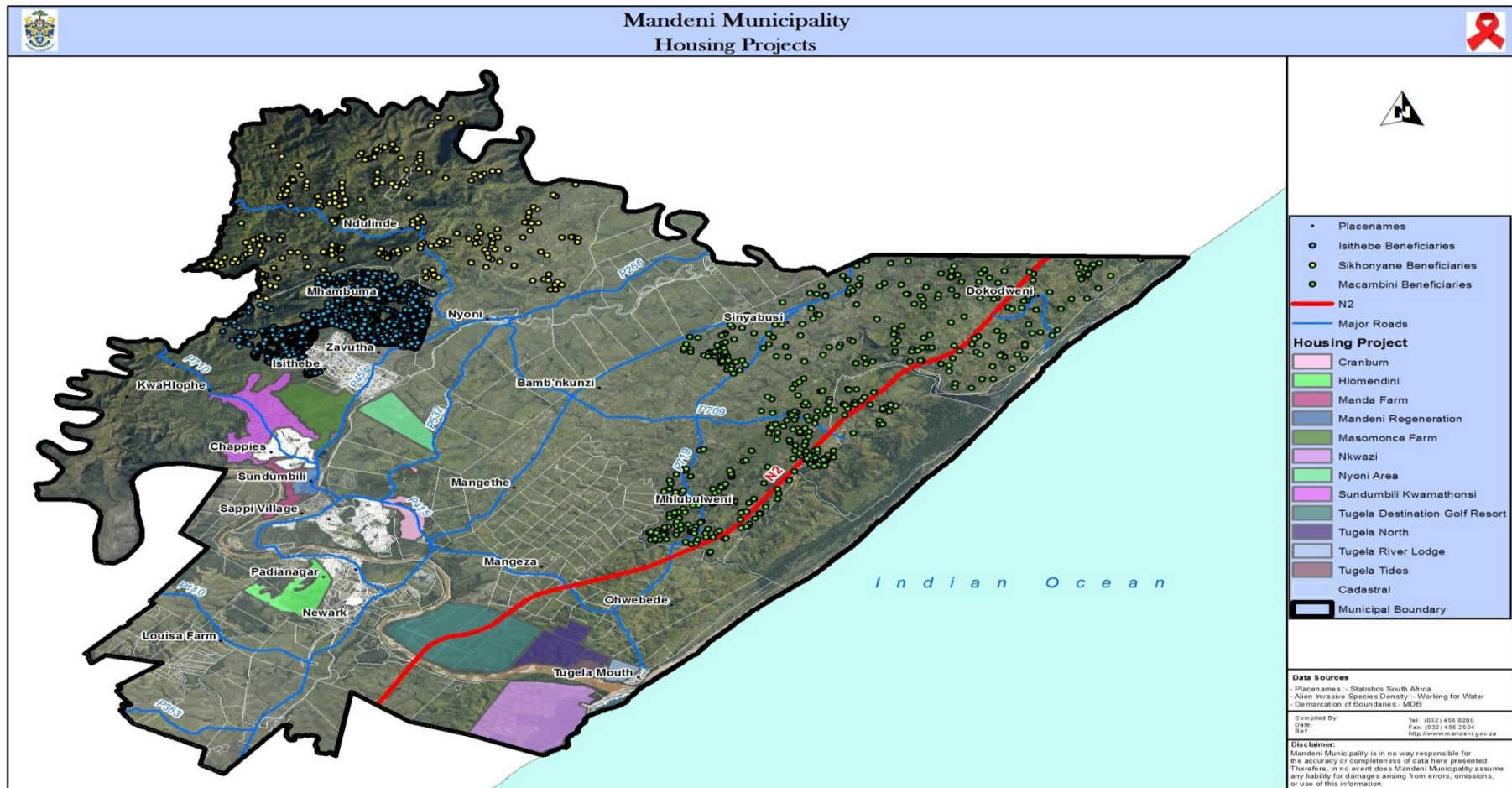
The table below depicts the projects that was being planned when the housing Sector Plan was developed.

Table 14: Mandeni Planned Housing Projects (Housing Plan 2015)

Housing Project	Units	Implementing Agent	Completion date	Beneficiary registration status
IsiThebe Housing Projects	2000	CHS	Not Available	Available
Sikhonyane Phase 2	2,000	SMA	Not Available	Not Available
Thorny park	2,000	Not appointed yet	Not Available	Not Available
Total	6 000			

Source: Mandeni housing Sector Plan 2015

Map 20: Settlement pattern/Housing projects



Source: Black Balance Projects

17.1.17.2.3 Current Projects

According to the housing Sector Plan dated 2010, the following projects were implemented during the last few years. The status of these projects is indicated in the following table. **Source:** Black Balance Projects

Map 20: attached overleaf depicts the areas where these projects are being implemented.

Table 15: Mandeni Planned Housing Projects (Housing Plan 2010)

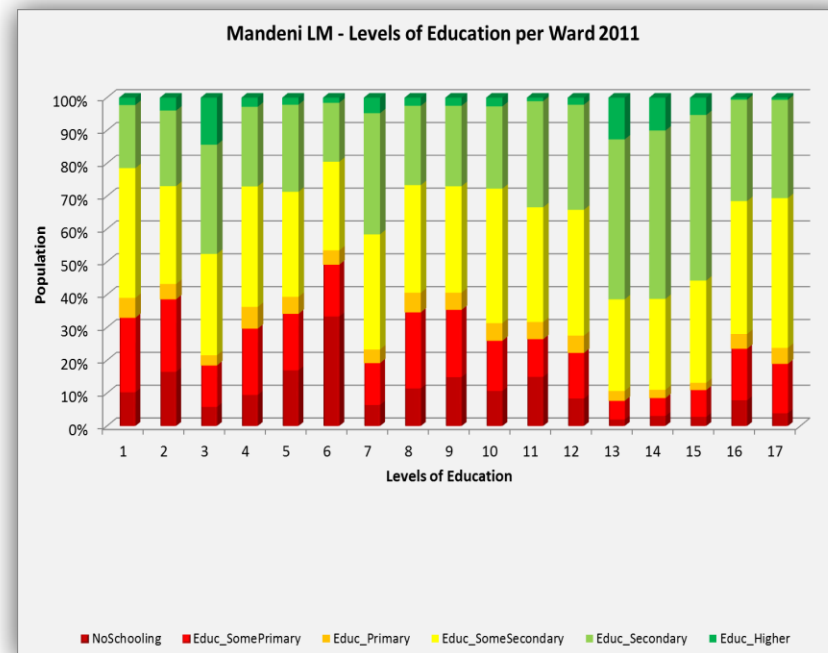
Project Number	Project Name	No. of sites	Status
K03090010	Hlomendini Housing Project	1000	Completed
K03100025	Macambini Ext 1 Phase 2	1000	Completed
K04110015	Kwamathonsi/Sundumbili Housing Project	1000	Completed
K06030001	Hlomendini Phase 2	909	2009/10
K04080002	Masomonce Rural	500	Completed
K05100006	KwaMathonsi Rural Housing Project	1000	Completed

Source: Mandeni housing Sector Plan 2010

The housing projects depicted on the plan over leave only depicts projects headed by the Mandeni housing Department and the Provincial Department of Human Settlements. To ensure that all developments are considered, the image below (extracted from

the IDP) depicts the other housing projects being implemented, that needs consideration in terms of infrastructure provision.

Figure 12: Housing Projects



Source: Mandeni IDP 2016/17 Review

2.3.18. A HIGH ROAD HOUSING FORECAST

The sustainability of Ilembe residents is dependent on the provision of appropriate accommodation for all residents of Ilembe. The table below, based on the foregoing, presents:

- the 2050 housing need in real terms based on the above typology;
- the additional units to be provided between 2007 and 2050 per category; and
- The average annual supply of units required between 2007 and 2050.

Table 16: The High Road 2050 Housing Forecast

HOUSING TYPE	2050 HOUSING NEED	ADDITIONAL UNITS TO BE PROVIDED BY 2050	UNITS TO BE PROVIDED ANNUM 2007-2050
Other			
Informal in back yard			
House/flat/room in back yard			
Room/flatlet on shared	2,628	Existing	
Workers' hostel	2,628	Existing	
Informal dwelling (settlement)	10,513	Existing	
Traditional dwelling	52,565	Existing	
Town/cluster/etc house	63,078	62,169	1,554

Flat in block	78,848	73,592	1,840
House or brick structure (separate)	315,392	266,325	6,658
TOTAL	525,654	401,128	10,052

Based on the above it is concluded that the High Road Scenario will require close to 10 000 new housing units per year to be supplied in the Ilembe District Municipality.

Source: Ilembe Regional Spatial Plan Consolidated Report (July 2013)

17.1.18 Health Care Facilities

The Ilembe family of municipalities falls within the Durban Planning Region of the Department of Health. This region comprises four Health Districts; two of which cover the Ilembe area, i.e. Ndwedwe Health District and Lower Tugela Health District. The health care strategy is hospital-centered for each Health District and these hospitals assume responsibility for the outlying clinics within that Health District from a financial, personnel, referral and support point of view. Mobile clinics augment this health care system and also fall under the auspices of the hospitals.

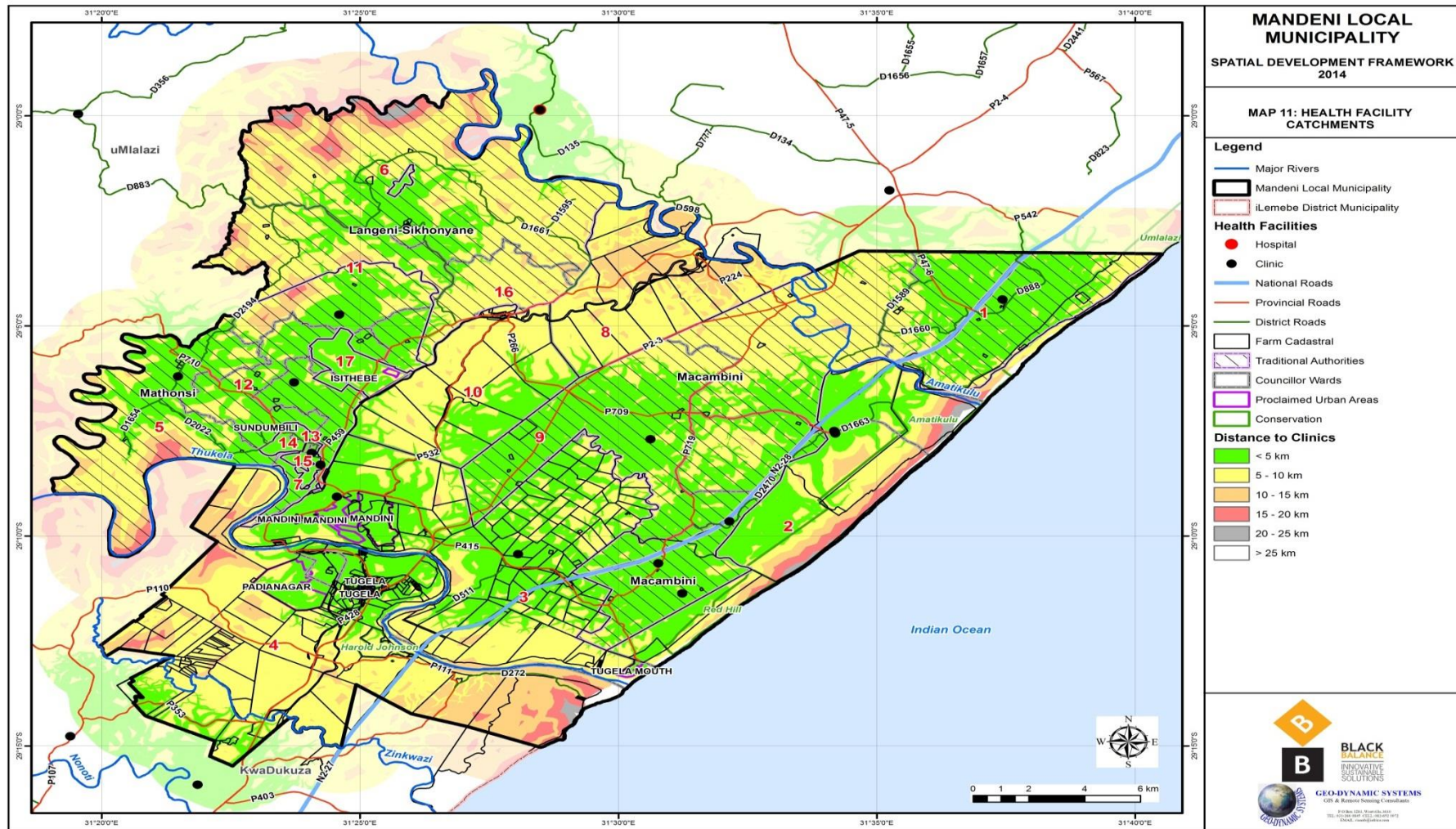
Hospitals are located in Stanger and existing clinics and mobile clinic stops are associated with local service nodes. The Stanger hospital serves a relatively large Health District servicing the Mandeni Municipality, this implies long travel distances for the people. In some instance the Catherine Booth which falls within uMlalazi Municipality is generally accessed by the local community, it can be generally recorded that the is well serviced in terms of the provision of health services.

The following shows the health care facilities within the Municipal area:

- Dokodweni Clinic
- Macambini Clinic
- Ohwebede Clinic
- Ndulinde Clinic
- Hlomendlini Clinic
- Mandeni Clinic
- Isithebe Clinic
- Sundumbili CHC
- Amatikulu Primary Health Care Centre

Please refer to **Map 22: Health Facilities** Attached over leave for a depiction of the locality of these facilities. When considering accessibility to these facilities, it is clear that most of the communities are serviced within a radius of 10km by a clinic. The Limited areas that are situated in ward 6 and on the northern most boundary of the municipality are serviced only within a 20km radius. This area is very sparsely populated, and can be serviced with mobile clinics.

Map 22: Health Facilities



Source: Mandeni GIS

2.3.19. MANDENI FACILITIES

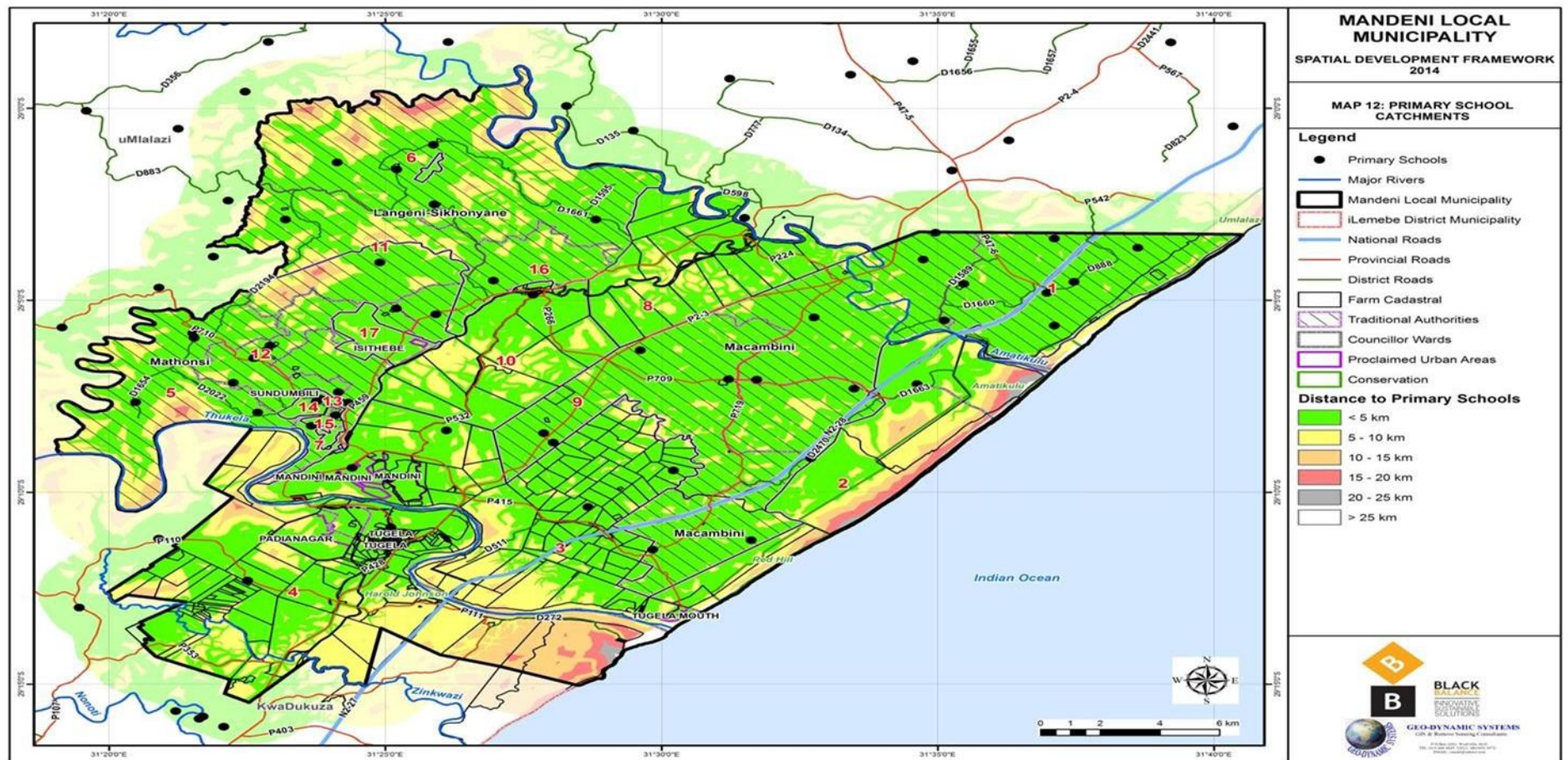
The 2013 ILembe Regional Spatial Plan identifies that despite the extensive and dense nature of the Mandeni, Isithebe, Sundumbili area, these major Rural Towns and villages appear to possess an inadequate level of all facilities. The areas of both Infill and extension of the extensive rural town will need both an upgrading and provision of new Primary and Secondary Schools.

Mandeni is a relatively low-income area which means that it needs to be provided with a range of public facilities which further need to be clustered and coordinated to create the catalyst for the creation of appropriate urban centres. The new extension areas to existing development and the various new Rural Villages and Coastal villages will require a full range of facilities and consequently new social facilities such as schools, parks, etc. ILembe Regional Spatial Plan Consolidated Report (July 2013)

17.1.19 Education Facilities

17.1.19.1 Primary Schools

Map 23: Please refer to a depiction of the Locality of the Educational Facilities.



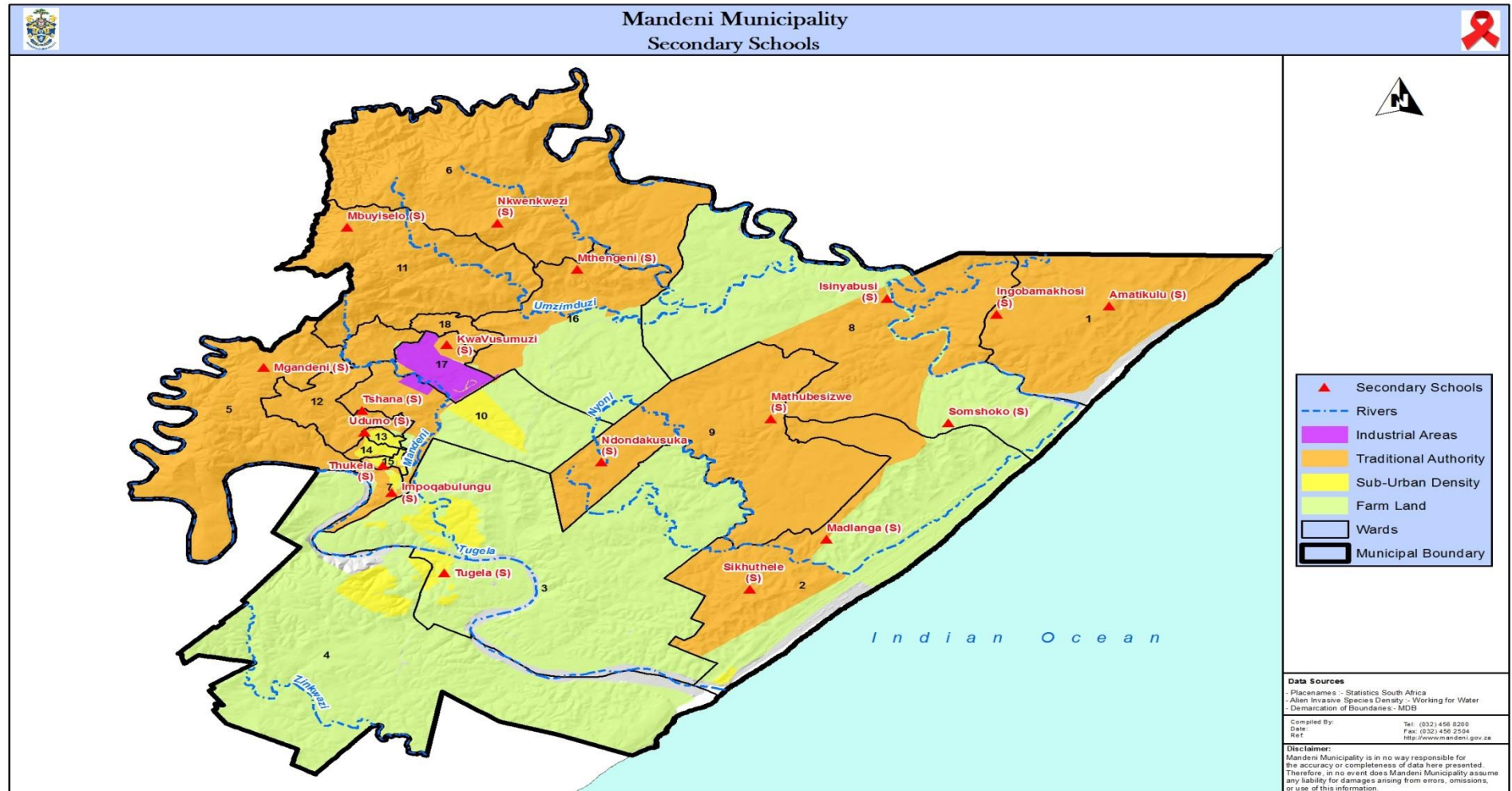
Source: Mandeni Municipality: GIS

The Mandeni Municipality is well-serviced by the 50 primary schools. All of the settlements are serviced by primary schools within a distance of 5 to 10 km.

17.1.19.2 Secondary Schools

The Mandeni Municipality is serviced with 15 Secondary Schools similar to the primary schools; the average distance travel by pupils is 5 to 10 km. One of the challenges is not only the access to schools facilities but the quality of the infrastructure is deteriorated. The majority of these schools were built by the apartheid government and some of the facilities which provide a conducive environment for learning and growing are not available such as access to Libraries.

Map 24: Secondary Schools



Source: Mandeni Municipality: GIS

17.1.20 Libraries

The Mandeni Municipality is serviced with 1 Main Library situated on the same premises as the Municipal Offices, at 2 Kingfisher Road, Mandeni. There are two other libraries within the municipality one is located in Sundumbili and the second one is located in Ndulinde.

17.1.21 Police Services

Mandeni Municipality is serviced by three police stations and two satellite stations. The main Police offices are situated at

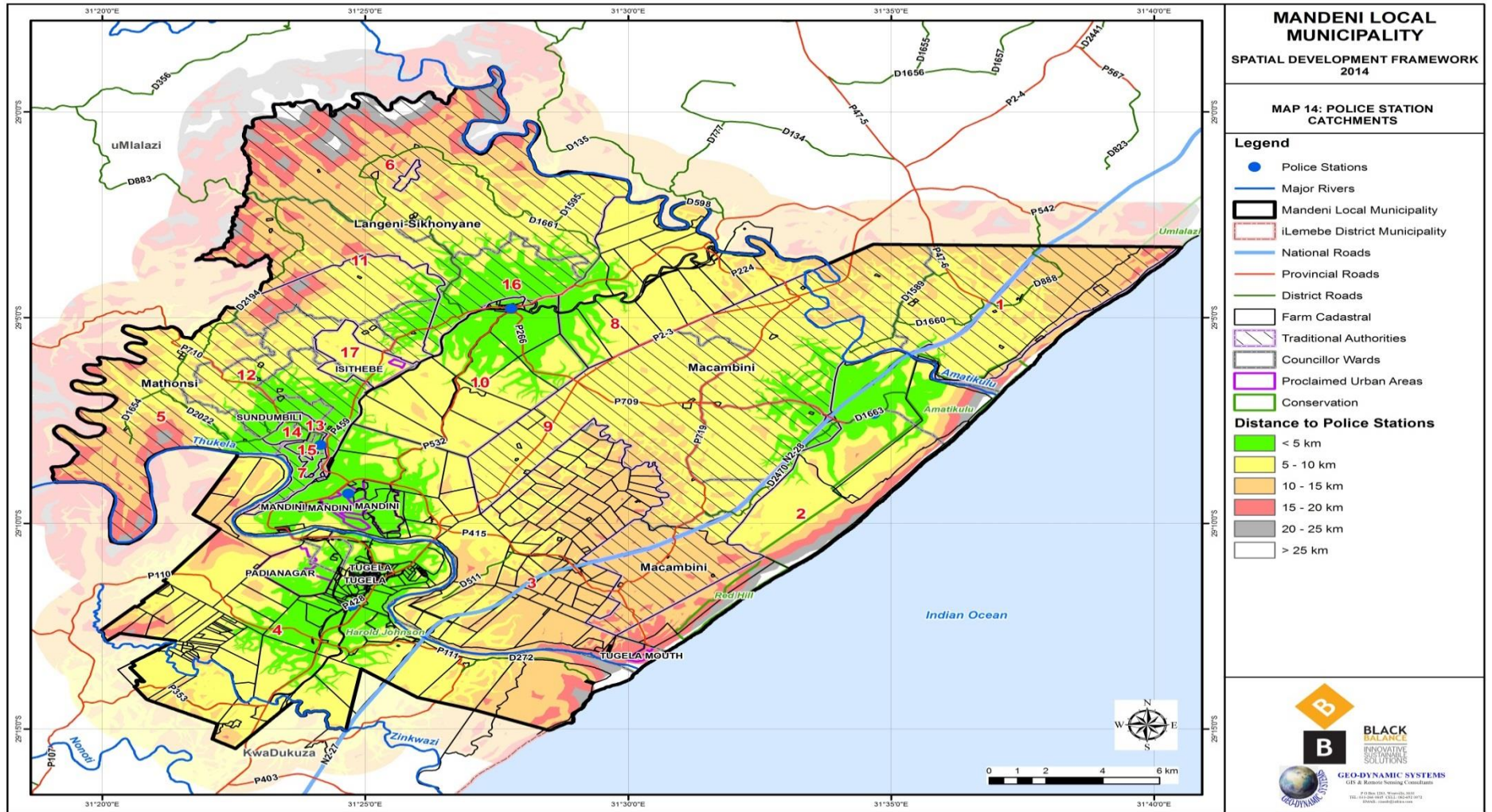
- Mandeni SAPS Sundumbili
- Nyoni
- Newark

The service radius of a police station is 20km. Apart from the extremities of the municipality, with areas such as Tugela Mouth, the northern areas of Ward 6 and the eastern periphery of wards 4 and 5, the whole of the municipality is serviced within a traveling distance of 20 km.

17.1.22 Emergency Services

The Municipality is serviced with only one Emergency Medical Retrieval Facility (EMRS) situated within Sundumbili. Although the urban areas are serviced within a 5km Radius, the larger part of the HH is situated in excess of 10km from the facility.

Map 25: Police Stations



Source: Black Balance Projects

17.1.23 Community Halls

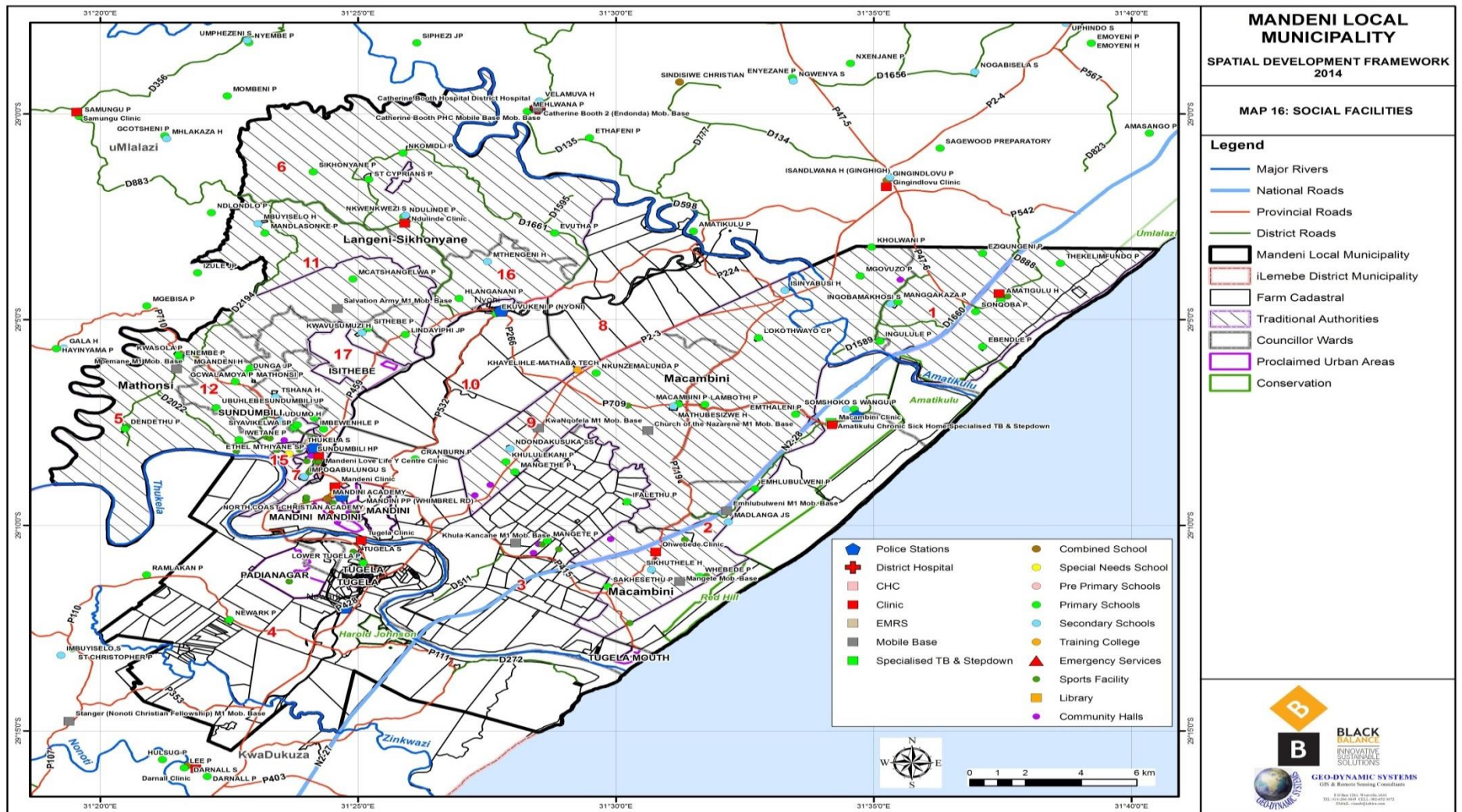
There are eleven (11) community halls within the Mandeni area. These halls are not evenly spaced throughout the municipality and are clustered as follows:

Table 17: Distribution of Community Halls

Locality	Number of Halls
Mandeni	2
Sundumbili	3
Macambini (R102 P415 Intersection)	2
Macambini (R102 N2 Intersection)	3
Macambini (Along P47-6)	1

Source: Geo-Dynamic Systems

Map 26: Social Facilities



Source: Black Balance projects

2.3.20. Physical Resources

17.1.24 Transportation Network

In addition to the main movement and development corridors as described under **Section 3.2: Areas of Potential Intervention**, the municipality is fairly well serviced with an extensive road network of $\pm 700\text{km}$.

Most of these roads are gravel (85% of the roads), and needs regular maintenance to ensure ease of accessibility. These roads are marked in brown on **Map 27: Transportation Network** attached overleaf.

These rural roads require mechanical plant and equipment to carry out repairs and maintenance, and there is currently insufficient mechanical plant to be able to address the exceptionally high demands from 17 wards.

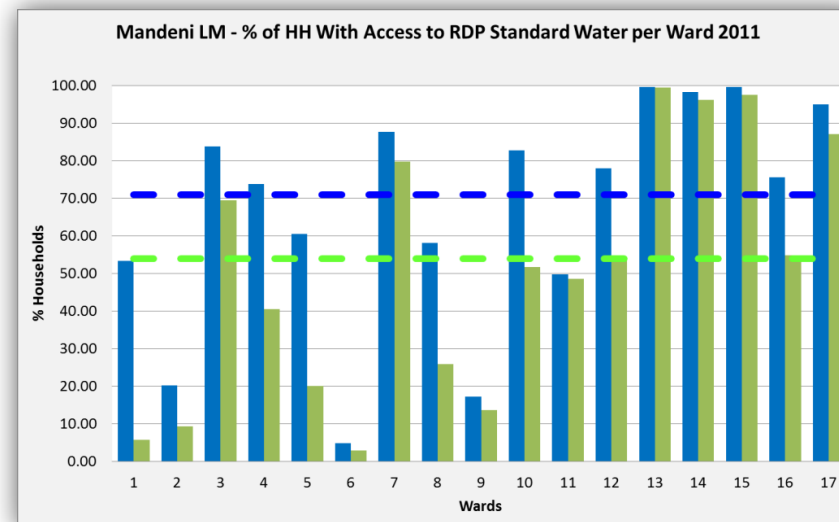
17.1.25 Water & Sanitation

17.1.25.1 Water Infrastructure

The graph below depicts the level of water services within the Mandeni Municipality.

The municipality has an average level of service of 72% of the HH being serviced with RDP Standard services. In comparison to the RDP Level of Service, only an average 54% of the HH has yard connections or a higher level of service. The urban areas can once again be clearly identified by the level of services, whilst it is clear that substantial improvement of services in rural areas are required.

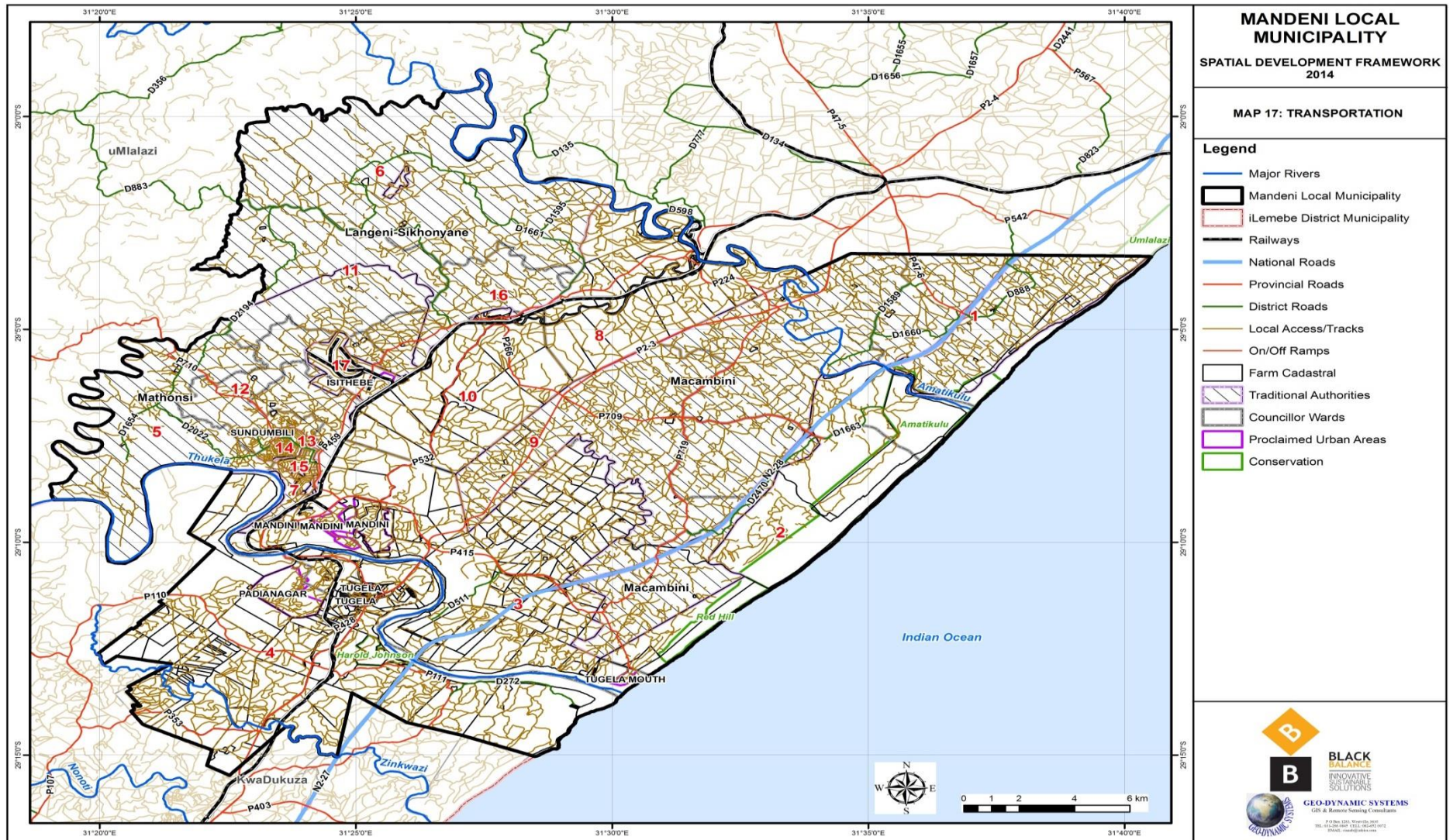
Graph 3: Water Service Level



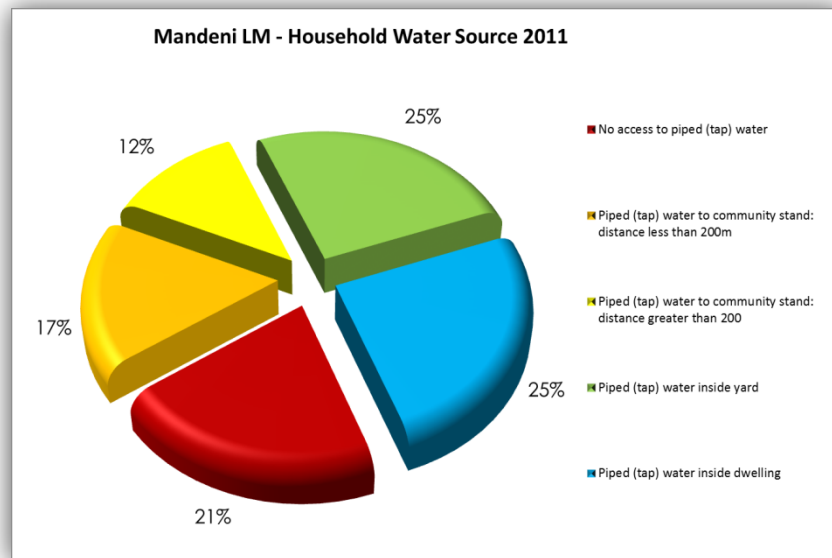
Source: Stats SA – Census 2011

In conjunction with the above, the below graph depicts the distribution between water sources, and confirms the distribution of the levels of service as depicted in the graph above.

Map 27: Transportation Network



Graph 4: Water Sources



Source: Stats SA – Census 2011

Mandeni Municipality is serviced by the following eight (8) Water Treatment Works. The table below further depicts the quality of the water being provided from the various Water Treatment Works.

Table 18: Water Treatment Works & Water Quality

WTW	Microbiological (Health)	Chemical (Health)	Physical Organoleptic	Operational
Uthukela WTW	Excellent	Good	Excellent	Excellent
Hlanganani	Intervention Required	Intervention Required	Intervention Required	Intervention Required
Sundumbili Reticulation	Intervention Required	Excellent	Excellent	Excellent
Amatikulu	Intervention Required	Excellent	Excellent	Intervention Required
Mandeni	Needs Attention	Excellent	Excellent	Excellent
Mazitapele	Excellent	Excellent	Excellent	Excellent
Ohwebede	Intervention Required	Needs Attention	Intervention Required	Needs Attention
Lambothi	Excellent	Excellent	Excellent	Needs Attention

Source: Environmental Management Framework for iLembe District Municipality: Status Quo

From the above water sources the municipality is fairly well serviced with water infrastructure as is visible on above table.

The urban areas are serviced with potable water and an extensive network of pipelines, whilst the rural areas are serviced with a combination of reticulation pipelines and rudimentary water schemes. When considering the distribution of households, the Mathonsi and Langeni-Sikhonyane Traditional Areas are well serviced, whilst the southern parts of the Macambini TA has substantial backlogs in water infrastructure.

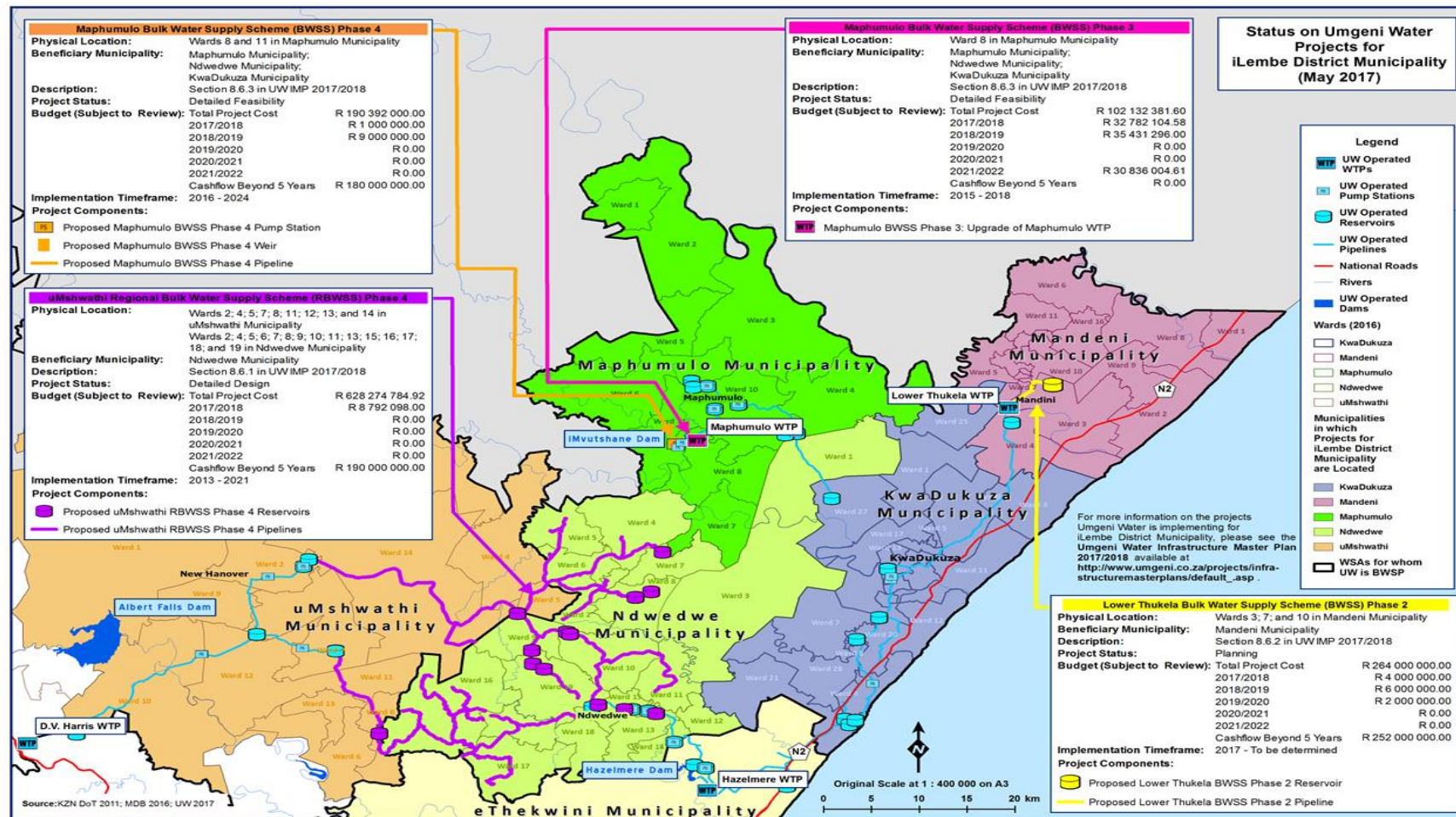
The following two (2) Planned Bulk Water Schemes will assist in the water supply backlog.

Table 19: Planned Bulk Water Schemes

Project	Ndulinde Sub-Regional Water Supply	Macambini Sub-Regional Water Supply
Service Area	Wards 5, 6, 11	Wards 1, 2, 3, 8, 9
Water Source	Reservoir C – fed from Sundumbili Water Works	Sundumbili Water Works
Population Served	Population: 42,752 Households: 10,691	Population: 58,480 Households: 7,310
Estimated Implementation	2017 / 2018	2017 / 2018
Status	-	-

Source: iLembe District municipality IDP 2013/14 Review

Map 28: Water Projects Funded by Umgeni Water



Source: uMgeni Water

17.1.25.2 Sanitation Services

The Data from Stats SA identifies the following types of sanitation services levels"

Table 20: Levels of Services

1. Flush toilet (connected to sewerage system)	Acceptable service levels – dependant on budgetary constraints.
2. Flush toilet (with septic tank)	
3. Chemical toilet	
4. Pit latrine with ventilation (VIP)	
5. Pit latrine without ventilation	Unacceptable service level.
6. Bucket latrine	
7. None	

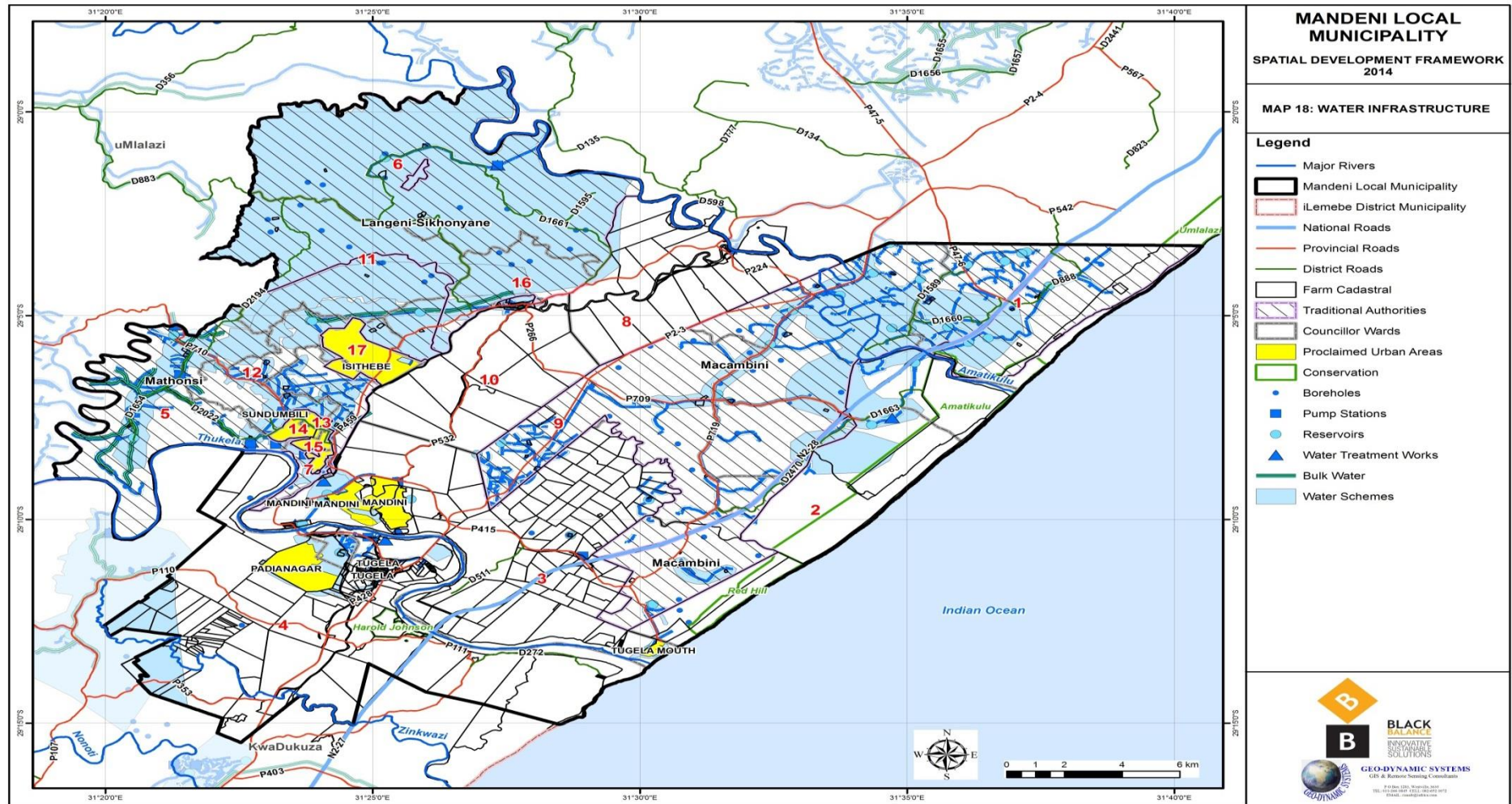
Source: Stats SA – Census 2011

The current localities of waste water treatment works, as well as the capacity thereof could not be verified. The ILembe Regional Spatial Development Plan referred to only one WWTW situated within Mandeni Town with the capacity of receiving 1.2Ml per day, and a planned regional WWTW to handle approximately 20Ml per day. The status of these facilities is unclear and needs to be confirmed.

When considering the Statistical Information from the 2011 Census it depicts that the municipality has an average level of service of 68% of the population serviced within RDP standard of sanitation services. The graph further depicts that only an average of 30% of the municipality is serviced with waterborne (Municipal System / Soak Away) infrastructure.

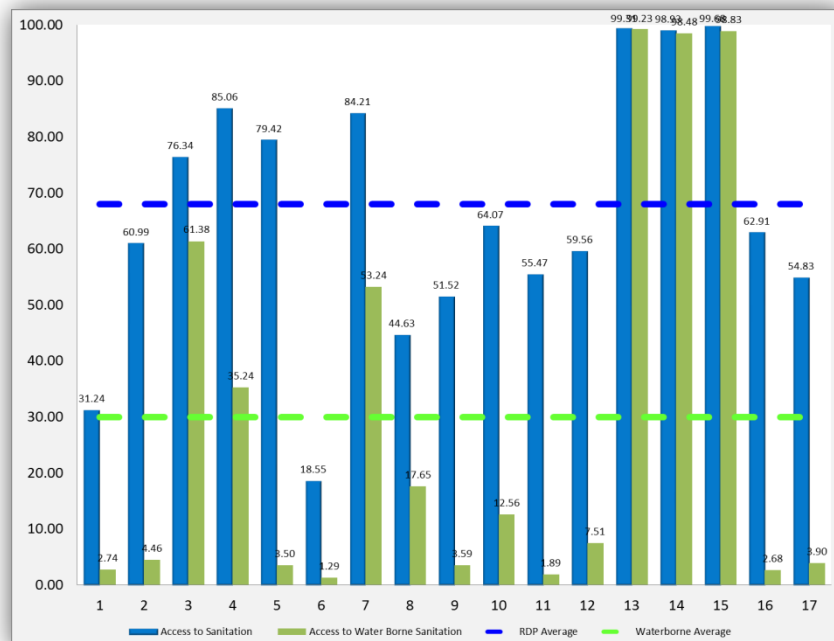
The long term aim is to have all households linked to waterborne sewerage systems, although the circumstances and the densities of the various communities needs to be taken into consideration for cost effective and prioritised implementation.

Map 29: Water Infrastructure



Source: Black Balance Projects

Graph 5: Access to Sanitation per Ward



Source: Stats SA – Census 2011

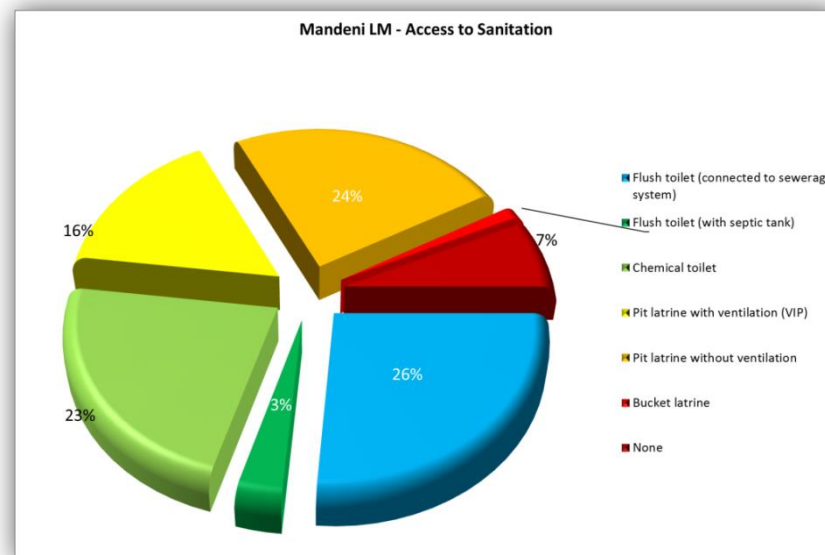
The level of service here clearly depicts the urbanised wards within the municipality. The map overleaf depicts the areas where the need for sanitation services is the highest.

The rural areas of Wards 9, 10, 11 and 12, as well as the Industrial node of Isithebe, has a sanitation backlog of 0%.

Ward 5 has the lowest level of services with a backlog in excess of 50%, whilst the remaining wards has a backlog of anywhere between 1% and 50%. Please refer to **Map 29: Sanitation Backlog**, attached overleaf for a depiction of the above mentioned.

To confirm the above, the graph below depicts the distribution of the various service levels between the households.

Graph 6: Access to Sanitation

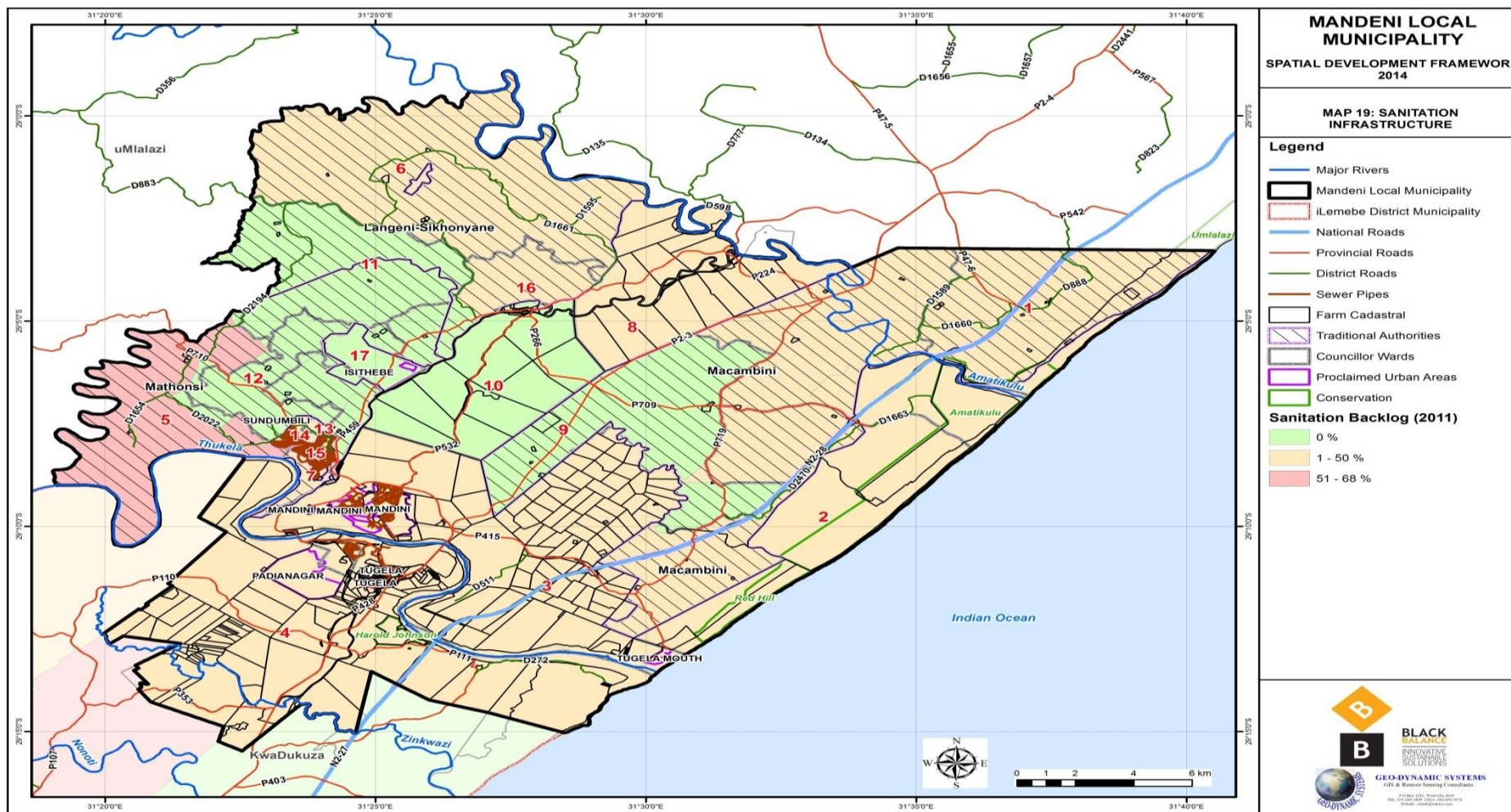


Source: Stats SA – Census 2011

The Infrastructure Summit Report highlighted the following key interventions specifically towards the development of rural sanitation infrastructure.

- Proactive Routing and planning to expedite provision of bulk services.
- Water Bourne Sanitation to be prioritised for improve standards and protect environment
- Promote and establish local manufacturing of components for infrastructure provision
- Need to assess and address leaking septic tanks to protect investment potential.

Map 29: Sanitation Backlog



Source: Black Balance projects

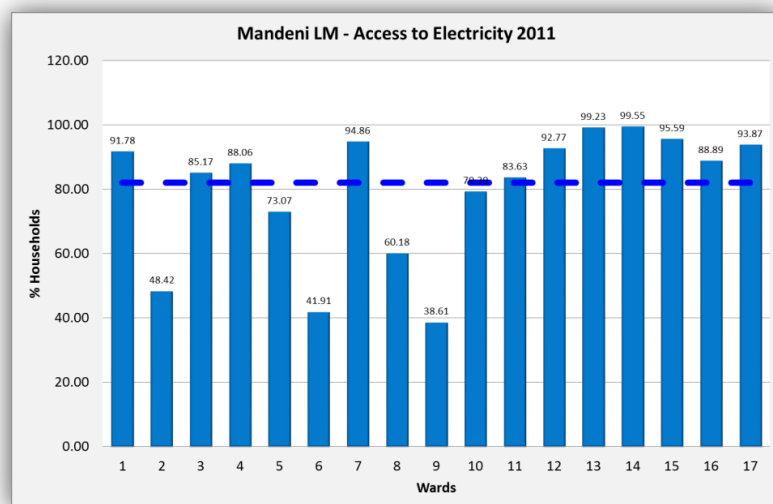
17.1.26 Electricity Network

The Census Data do not distinguish between population with and without electricity, and it is therefore difficult to determine exactly which households are connected to the power grid. In order to estimate access to electricity, statistics related to using electricity for lighting purposes was used.

It is clear from **Map 30: Access to Electricity** attached overleaf that the Mandeni Municipality is very well serviced with Electrical Infrastructure.

The graph below depicts that the municipality has an average service level of 82% of the population being serviced with electricity.

Graph 7: Access to electricity



Source: Stats SA – Census 2001/2011

The iLembe Energy Master Plan (iLembe District Municipality, 2007) indicates that renewable energy supply will be considered for the following reasons:

- To provide an alternative energy supply to indigent households with no access to electricity;
- To provide environmentally friendly and sustainable 'green' energy;
- To ensure that the iLembe District Municipalities energy needs are met in order to sustain economic growth;
- Renewable energy projects implemented could earn equivalent carbon credits which could be sold or traded and the resulting funds could be used to further Economic Development; and
- To reduce dependence on the national power utility (Eskom) for its energy needs.

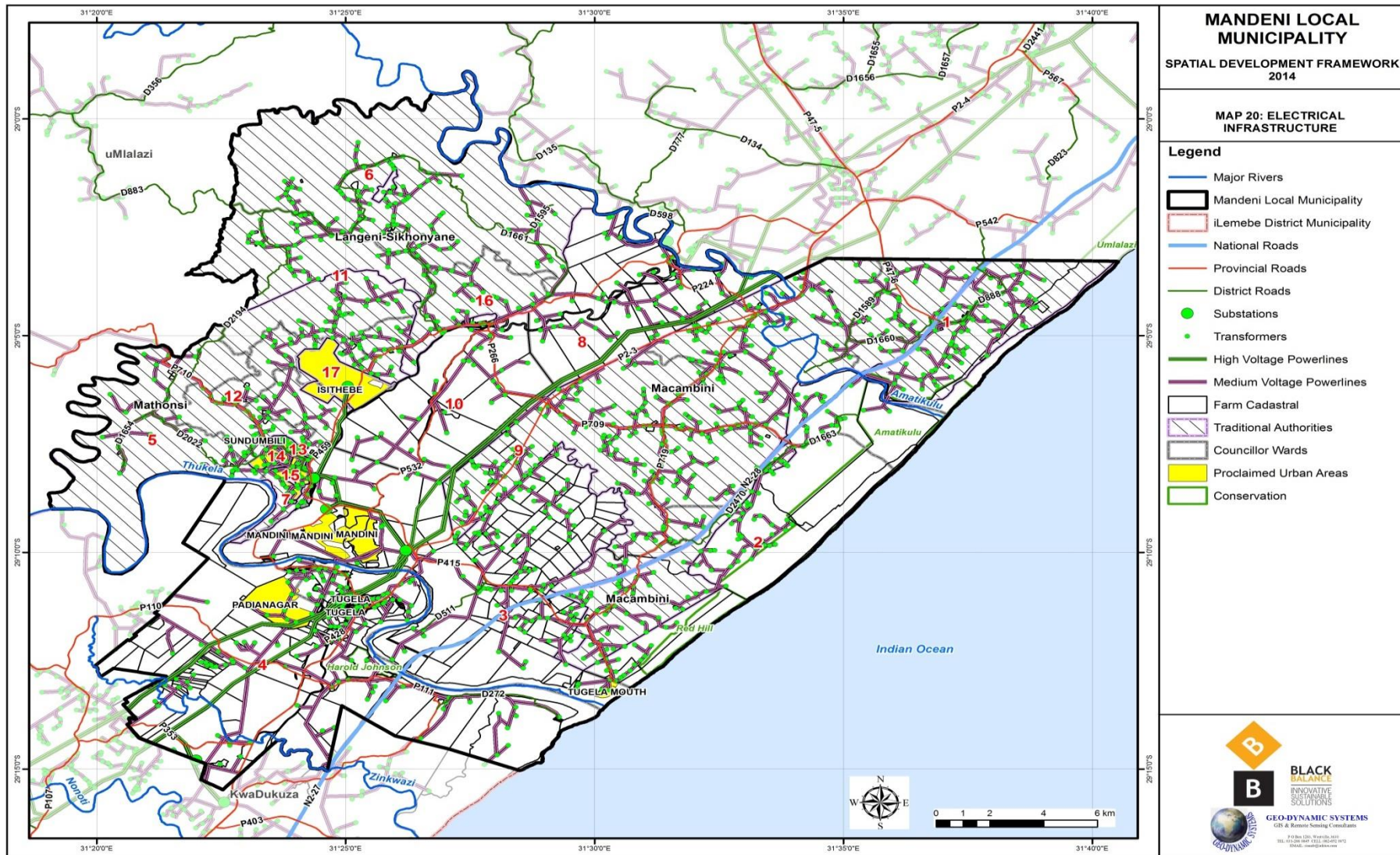
Alternatives are under consideration in iLembe includes photovoltaic solutions, solar water geysers, mini grids, mini hydro, wind, biogas (from waste disposal sites) and biofuels. According to the iLembe Environmental Management Framework, only Mandeni Local Municipality expresses a firm intention to invest in renewable energy. The Municipality do experience severe reluctance from communities to accept alternative energy sources, and therefore the Municipality have made financial provision to improve public awareness and investigate pilot opportunities.

Actual investment by iLembe in renewable technologies includes:

- PV technology awareness campaign
- A solar water heaters pilot at schools and clinics
- Two mini-hydro pilot sites on the Umvoti river
- Bio-gas pilot sites in Stanger and Mandeni

- Agricultural activity, predominately large-scale private sugar farming is located on the northern edge of Ndwedwe, the central corridor of Mandeni and KwaDukuza Municipalities accounting for approximately 31% of land use in the District.

Map 30: Access to Electricity



17.1.27 Solid Waste

Arcus GIBB collated the Integrated Waste Management Plan (IWMP) and associated strategy for the Mandeni Municipality during 2009.

Despite there being a number of privately owned landfill sites and other waste handling facilities, the Municipality does not own or operate any such facilities as feasibility studies proved it more feasible to transport waste to the regional privately owned Landfill Site in KwaDukuza Municipality.

This regional waste disposal site has recently been issued a license to accept hazardous waste. This license was under appeal due to possibility of reckless transportation of hazardous waste, illegal disposal of hazardous waste, pollution incidents to surface and groundwater. The Department pointed out that this could be an opportunity as well as it could attract industry as there is a local point to get rid of hazardous waste.

All the landfill facilities within the Mandeni area have reached their capacity. The privately owned and operated KwaDukuza Landfill has been specifically developed as a regional landfill site that would also provide for the airspace needs of the Mandeni area.

The Municipality has contracted two waste service providers, one for day to day collection and removal of refuse from formalised urban areas, and the other for the disposal thereof.

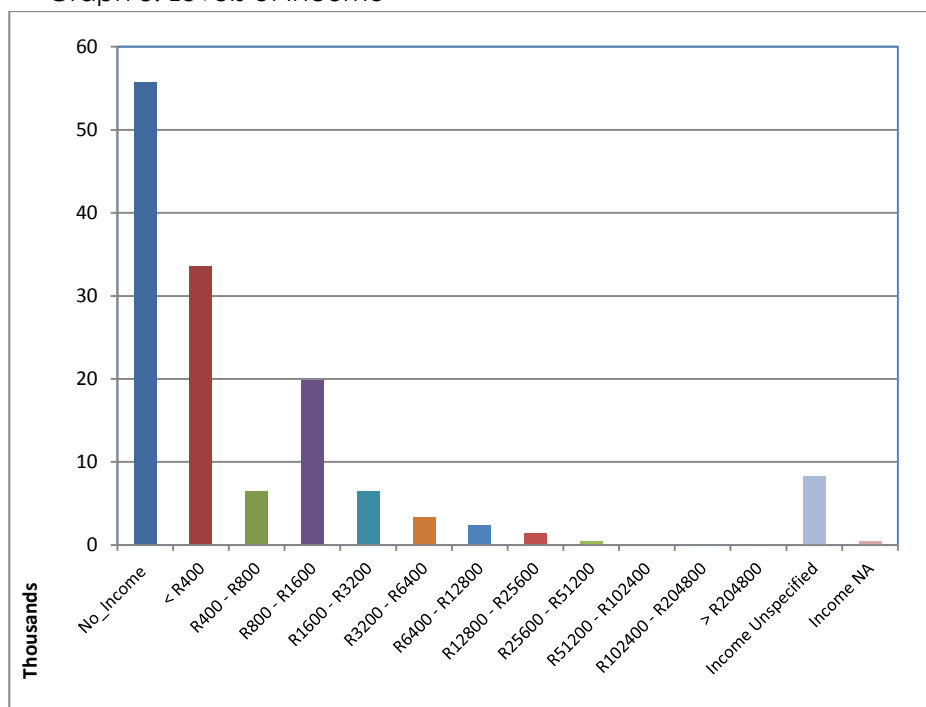
The needs and gaps identified regarding waste collection in the municipality is summarised below:

- Development of a comprehensive waste information system;
- Finalisation of the refuse removal by-laws;
- Collection services need to be extended to the informal, peri-urban areas and newly developed areas to ensure environmental compliance and to expand the customer rate base;
- The Municipality needs to monitor and regularly audit the collection service – this with regard to contractor performance, as well as record keeping;
- A strategy needs to be developed, for the provision of basic collection services to the rural areas;
- The Municipality needs to initiate a series of awareness programmes in order to inform Mandeni residents of waste services, recycling and waste minimisation initiatives and publishing of bylaws;
- Recycling, waste minimisation and re-use initiatives must be promoted and implemented;
- Tariffs need to be reassessed for content and then revised in amount, to reduce the shortfall in service cost recovery.

17.1.28 Income & Poverty Distribution

The graph below clearly depicts the very low levels of income of the municipality. A total of 43% of the households does not receive any income on a monthly basis, and only 26% of the households earning more than R9, 000/month.

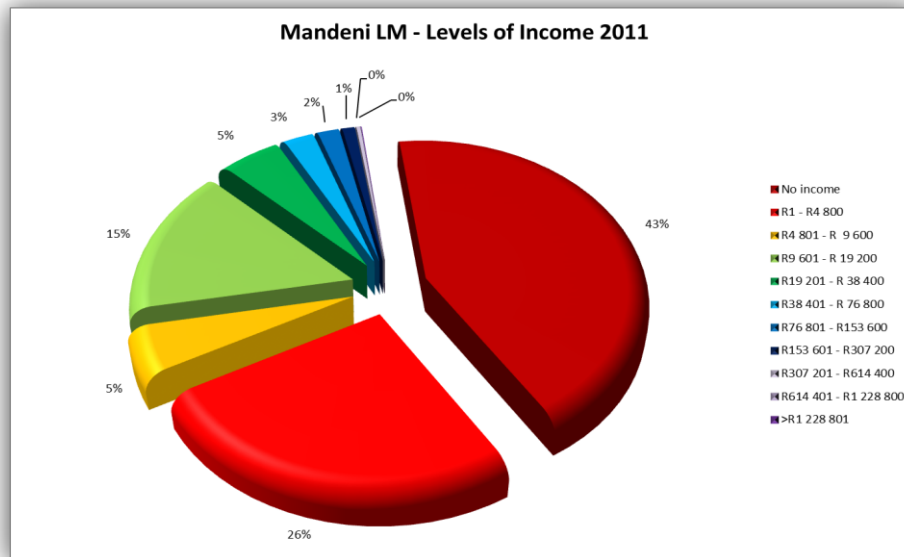
Graph 8: Levels of Income



Source: Stats SA – Census 2011

When considering the levels of income per ward, it is clear that the rural areas with traditional councils have the lower levels of income and includes wards 1, 2, 5, 68, 9, 11, and 16. The more urbanised wards with the higher levels of income are deniable by the small percentage of the households that earns between R1 and R4, 800 / Month. Thus there are two types of groups, there is a large High income group and a large group with no income at all. These wards includes wards 13, 14, 15, 17 as well as wards with commercial agricultural activates, and a subsequent low population density.

Graph 9: Levels of Income per Ward

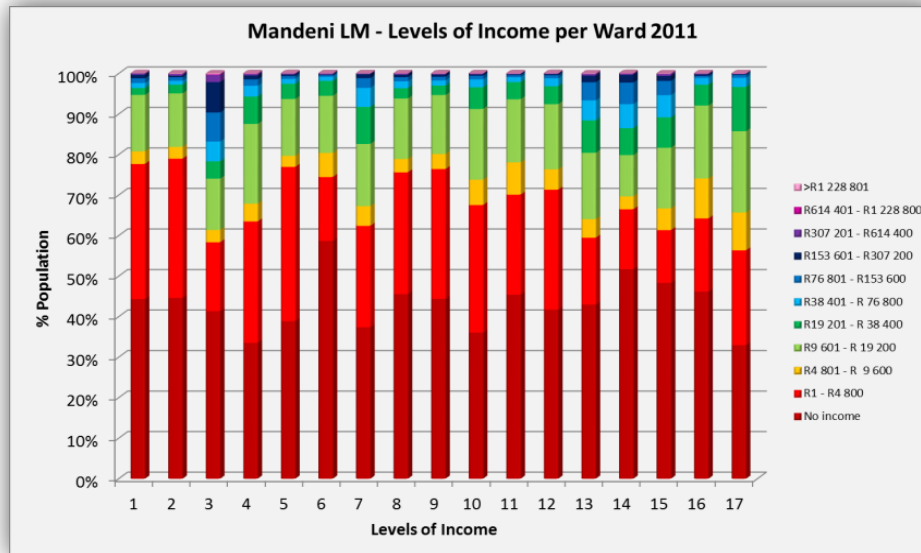


Source: Stats SA – Census 2001/2011

17.1.29 Unemployment Distribution

The graph below depicts the actual number of population unemployed per ward. It is clear from the below graph that wards 7, 8, 9, 12, 14 have by far the highest amount of people that is unemployed.

Graph 10: Level of Unemployment Per Ward



Source: Stats SA – Census 2001/2011

The locational factors influencing the high unemployment levels are depicted in the table below.

Table 21: Locational Factors influencing levels of unemployment

Ward	Locality
7	Sundumbili CBD & Residential Surrounds. Due to increase in population searching for economic opportunities, there is an oversupply in labour and subsequently the high level of unemployment in this area.
8	Large ward situated east and west of the R102 and N2. Assumed the high levels of unemployment situated within the Macambini TA, where little employment opportunities to the scale provided in Isithebe exists.
9	Large ward situated within the Macambini TA, where little employment opportunities to the scale provided in Isithebe exists.
12	A Large Ward. Includes the expansion of Sundumbili B in a northern direction, as well as the residential area directly west of iSithebe Industrial Estate. Increased population in close proximity to economic opportunities resulted in over supply of labour.
14	Sundumbili B. Due to historical situation, which resulted in low levels of education, the market for unskilled labour has been saturated.

Source: Stats SA – Census 2001/2011

Table 22: GVA Contribution

Year	2011	%
Industry		
Total	3336.466	100
Agriculture, forestry and fishing	126.2756	3.78
Mining and quarrying	50.38561	1.51
Manufacturing	1247.823	37.40
Electricity, gas and water	7.566253	0.23

17.1.30 Economic Sector Analysis

This section provides an overview of the economic activities and opportunities that exist within the Mandeni Municipality.

As per Table 22 and Table 23, according to the Mandeni Local Economic (2014), as well as the Mandeni IDP (2014/2015 review), the manufacturing sector is the largest contributor to the Gross Value Added (GVA) of Mandeni Municipality, accounting for approximately 37% of total GVA and employs approximately 26.86% of the labour force. This is followed by finance, insurance, real estate and business services (28.99%), wholesale and retail trade, and catering and accommodation (15.96%). Agriculture; general government; mining and quarrying; electricity, gas and water and the transport and construction sectors contribute minimally to the municipal GVA, accounting for 3.78%, 3.69%, 1.51%, 0.23%, 5.11% and 0.93%, respectively. GVA is the difference between the value of goods and services produced and the cost of raw materials and other inputs used for production.

Construction [SIC: 5]	31.06001	0.93
Wholesale and retail trade, catering and accommodation	532.4409	15.96
Transport, storage and communication	170.4363	5.11
Finance, insurance, real estate and business services	967.154	28.99
Community, social and personal services	80.35822	2.41
General government	122.966	3.69

(Source: Mandeni Local Economic Development Strategy: 2014)

Table 23: Contribution to employment

INDUSTRY	NUMBER	%
Total	27886.78	100
Agriculture, forestry and fishing	1071.665	3.84
Mining and quarrying	301.3812	1.08
Manufacturing	7489.876	26.86
Electricity, gas and water	8.89915	0.03
Construction	609.71	2.19
Wholesale and retail trade, catering and accommodation	7160.496	25.68
Transport, storage and communication	796.8299	2.86
Finance, insurance, real estate and business services	6349.034	22.77
Community, social and personal services	2529.07	9.07
General government	1569.818	5.63

(Source: Mandeni Local Economic Development Strategy: 2014)

17.1.30.1 Agricultural Resources

The Agricultural Potential of Mandeni Municipality ranges between the following categories of land:

- Category B: Threatened Agricultural Land
- Category C: Primary Agricultural Land
- Category D: Secondary Agricultural Land
- Category E: Mixed Agricultural Land
- Permanently Transformed Areas
- Proclaimed Reserves

These categories are directly linked to the Topography of the Municipality, with high potential agricultural land situated in the More evenly sloped fertile plains along the coast and central municipal area,

and the lower agricultural potential land situated in the north western parts of the municipality in the more mountainous areas.

Error! Reference source not found. for a depiction of the distribution of the agricultural activities.

When considering the iLembe District Municipality as a whole, the northern areas of Ndwedwe LM, the central corridor of Mandeni and KwaDukuza LM are the commercial farming hubs of the District, which consist mainly of privately owned sugarcane farms, covers 31% of the iLembe District.

In addition to the privately owned farms commercial farms, the District implemented a total of 8 Hydroponics (Agri Hub Projects) in the District of which two (2,500m² each) is situated within Mandeni Municipality. This project is mainly focusing on highly value crops such as patty pants, peppers, and cucumbers. All fresh produce that is harvested from the tunnels gets processed at the processing facility and sold to Spar in Ballito and Umhlali and Enterprise iLembe is looking at the expanding the program due to high demand of fresh produce by the markets. This program has generated of jobs more especially among youth.

In considering development potential, one also needs to consider land regulated by the Subdivision of Agricultural Land Act, 1970, (Act 70 of 1970). The central part of the Municipality where current commercial sugarcane farming is occurring, as well as the areas surrounding the Main development Corridor, namely the R102 is regulated by Act 70 of 1970. Please refer to **Map 21: Agricultural Land Categories** for a depiction of the areas affected by this act.

17.1.30.2 Industry & Manufacturing

Isithebe Industrial Estate is the base of all manufacturing activities within Mandeni Municipality and has the opportunity to play a significant role in production of textiles on a national base. More than 40% of South Africa's textiles are produced in KwaZulu-Natal which provides a distinct comparative advantage to grow the textile and clothing market.

The clothing sector is the largest employer within KwaZulu-Natal's manufacturing sector. This fact, coupled with the relatively low barriers of entry to the industry, makes it a very strategic industry for development purposes. The industrial and manufacturing sector is the most significant sector in this municipal area as it generates the most employment opportunities and output and contributes the largest amount to the Municipality's GVA (37%).

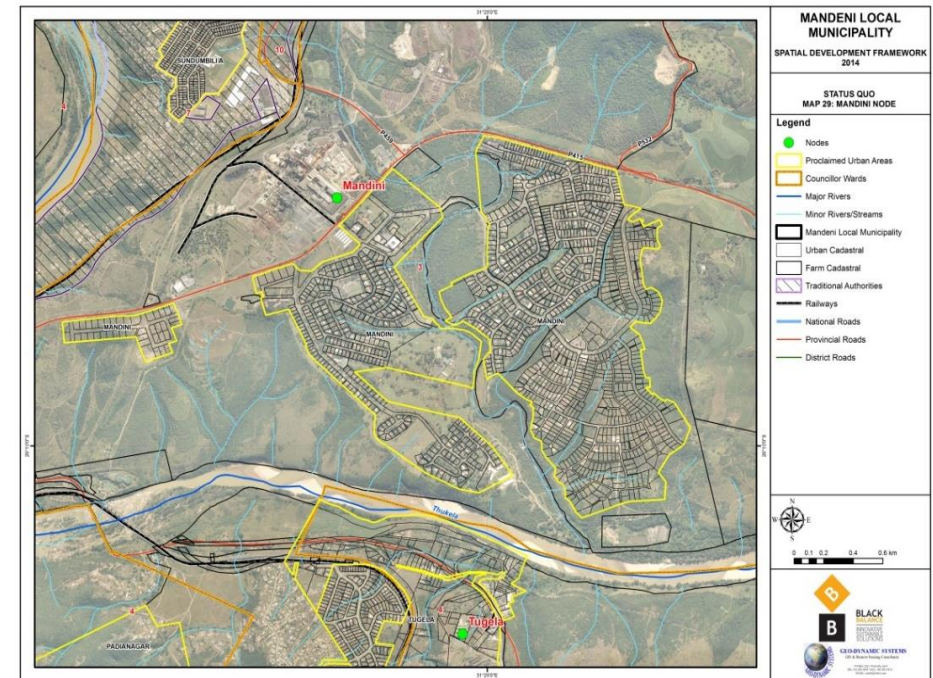
The Ilembe District Municipality EMF identified Isithebe as an Economic Opportunity Zone and has been proposed as a development area for heavy industry.

The Isithebe Industrial Estate is managed by Ithala, and the estate manager states that the estate is almost 100% occupied. There are a wide variety of industries in the estate including textiles, plastics, chemicals, and furniture. However, there is a lack of space in the estate for the future expansion of the industrial sector. The Sappi Paper Mill is the largest single manufacturer in Mandeni.

Enterprise iLembe has initiated the following project:

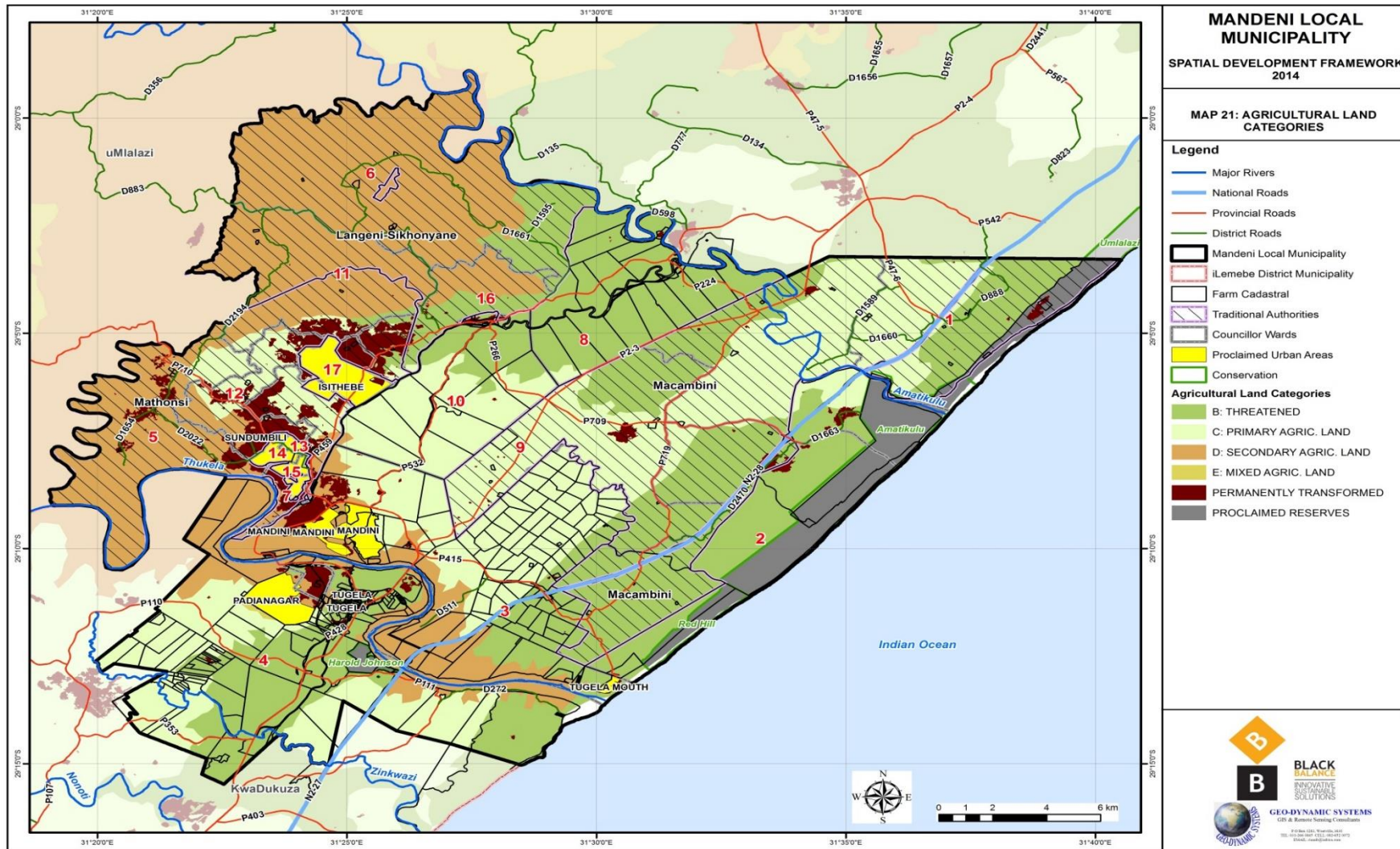
- **Bio-diesel:** Enterprise iLembe has initiated a Biodiesel project at Isithebe at the Isithebe industrial in Mandeni. The aim is to produce bio fuel through the Moringa plants that have been planted within the iLembe district Municipality. The Image below depicts the Isithebe Industrial Estate.

Map 31: Isithebe Industrial estate

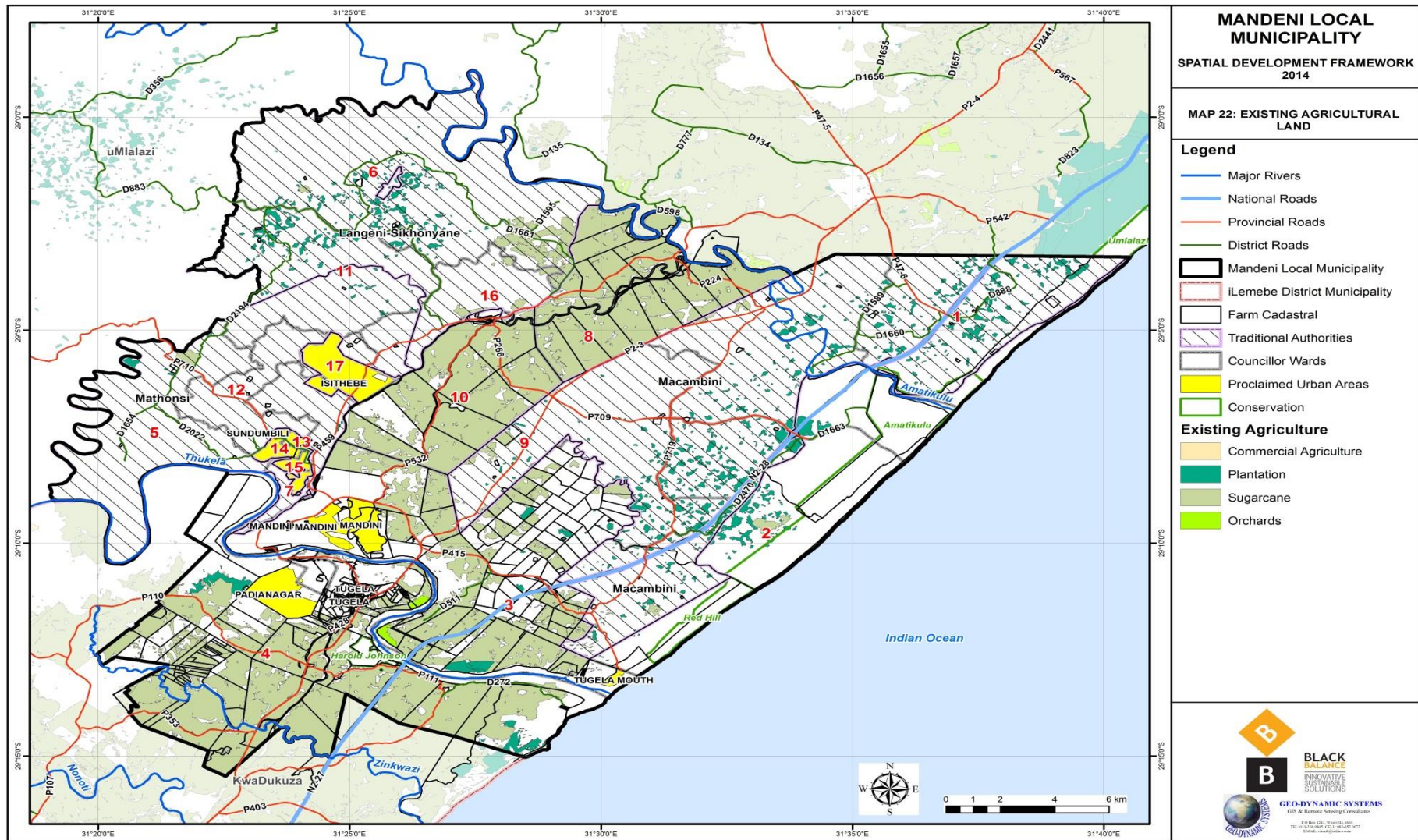


Source: Black Balance Projects

Map 32: Agricultural Land Categories



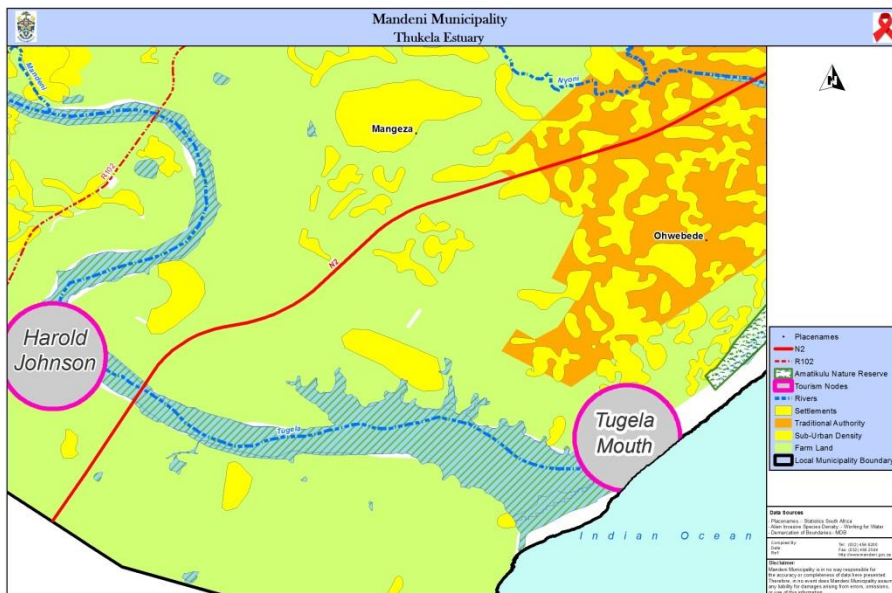
Map 33: Agricultural land: Act 70 of 1970



17.1.30.3 Tourism Resources

The primary factor that attracts tourist to the Municipal area is its beaches, estuaries and natural resources. The main tourism activities and tourism lure to the municipality is therefore situated at Tugela Mouth, which consist of guest houses, caravan park and camp sites with lovely swimming and fishing beaches, and is in close proximity to the Amatikulu Nature Reserve, Ndulunde Hills and Ndondakusuka Hill.

Figure 16: Thukela Estuary



Source: Mandeni GIS

In addition to this the Mandeni Municipality is a historically rich area, linked to historical sites and the Zulu Culture, of which the potential is not fully harnessed to develop Tourism opportunities stemming from the rich history.

The basis of the historical events includes the following:

- Great battles have been fought by the Zulus against the British in this area through the involvement of King Cetshwayo.
- The legacy of the Scottish immigrant, John Dunn, and his 48 Zulu wives and 117 children.
- Battle of Tugela: Fought on the slopes of Ndondakasuka in 1838 between a group of settlers from Port Natal under John Cane and Robert Biggar, and an Impi of Dingane's forces. King Dingane sent forces to eThekweni to destroy the settlers, but they took refuge in their ships, and were not attacked.
- Battle of Ndondakasuka (1856): Fought between King Mpande's sons Cetshwayo and Mbuyazwe to contest the right of succession to the Zulu throne, provoked by Colonial interests.
- Deteriorating relations between King Cetshwayo and the colonial authorities resulted in the Ultimatum given to King Cetshwayo's Izinduna on 11 December 1878 at the Ultimatum Tree on the banks of the Tugela in the Mandeni Municipality area.
- Invasion of the Kingdom of KwaZulu on 22 January 1879, and the start of the Anglo - Zulu War.
- Fort Tenedos located on the northern bank of Tugela River and part of the Harold Johnsons Nature Reserve.

The sector is able to generate employment opportunities without significant capital investment. About R1 million of tourism spend generates and sustains 11 annual direct and indirect jobs. Tourism outstripped Gold as the leading generator of foreign exchange earnings in South Africa in 2003, generating R53 billion and driving foreign direct spend into the country.

Current Proposals to revive economic activities includes the following:

- Adventure Hub situated along the Thukela River;
- Resort Developments along the Thukela;
- Conference Facility within the Ngwenya Conservation Area;

The LED strategy identified a number of projects for implementation, but after careful consideration of the Projects by Graham Muller & Associates, a number were found to be unfeasible at the current moment and time, although situations might change which makes these projects feasible. A constant review of the circumstances preventing these projects from materialising must therefore be conducted on a frequent basis. Only three feasible Catalytic Projects were identified. The above mentioned projects are depicted below:

Table 24: Feasible / Non-Feasible Tourism Project

Feasible with business Plans Developed	Non-Feasible (At Present)
- Conference Facility in "Ngwenya Conservation Area" - Development of an Adventure Hub along the Banks of the Tugela River - Revival of Battle of Ndongakusuka	- N2 Service Station - Queen Nandi Memorial - Amatikulu Resort - Increased Accommodation at the Amatikulu Nature Reserve

Source: Graham Muller & Associates.

17.1.30.4 Trade & Services

The commercial sector in Mandeni consists of the Renckens Spar, Mandeni Plaza, Sundumbili mall with smaller stores catering for the basic needs of the Mandeni Population, and small "Spaza Shops" distributed throughout the municipality to provide in very basic needs.

The service sector is fairly well established, but has opportunity for growth, should other economic opportunities expand within the municipal area.

17.1.30.5 Informal Economy

The informal economy, in terms of trade is largely operating from behind the Mandeni plaza, but also trade along main pedestrian

routes. The competitiveness of the formal market, as well as the lack of funding and appropriate business skills prevents entrepreneurs from developing their businesses to operate in the formal economy. Services are also offered in the informal market.

17.1.31 Property Development

There are three private developments being planned which will provide opportunity for local businesses and service providers to expand. The proposed developments are summarised in the table below:

Table 25: Pros:Private Residential Developments

Tugela River Lodge	Place of Kings Resort	Tugela Tides
50 Bed Hotel - Conference Facility 150 Apartment Units with Swimming Pool & Clubhouse 55 Freehold Residential Plots 40 Boathouses with 20 residential staff units	900 Residential Units - Hotel Complex - Open Space - Conservation Space - Wellness Centre - Sport Lodge - Business Park - Cultural Centre - Staff Village - Timeshare Resort - Entertainment Centre 18 Hole Golf Course & Club house - Hydroponics & Organic Farming - Wedding Chapel & Guest house	500 Residential Units - Club House - Boutiques Shop - Active & Passive Recreational Facilities.

Source: LED Strategy 2012

17.1.32 Economic Development Strategies

Based on the economic realities within the municipality The Local Economic Development Strategy proposed a number of strategic programmes and projects to be implemented. Not all has spatial manifestation but is important to consider when developing the SDF. The Projects with spatial manifestation is discussed in slightly more detail following the below list.

1. Establishment of Chamber of Commerce	10. Essential Oils
2. Investor Attraction	11. Bio-Fuels
3. Expansion of the Ithala Industrial Estate (Isithebe Phase 2)	12. King Shaka Statue & Cultural Village
4. Crime Reduction	13. Water Activities on the Tugela River
5. Skills Development	14. Establishment of a Small enterprise Development Agency
6. School of Sporting Excellence	15. Youth Centres
7. Development of a Petro port	16. Appointment of an LED Officer
8. Development of a Skills Register	17. Establishment of a LED Forum and Business Coalition.
9. Medicinal Plant	

From the above projects only a few have spatial manifestation, or has been found feasible within the Tourism Development Strategy. The table below provides more details on the intentions of the projects mentioned above.

Table 26: LED Projects with Spatial Manifestation

Intervention	Description
Special Intervention areas	Macro-Economic developments situated outside area of jurisdiction but have an influence on the Municipal Economy. This includes developments such as Dube Trade port, the harbours and surrounding industrial areas
Expand and Grow the Manufacturing Sector	Re-introduction of incentives to establish plants at Isithebe. Increase the space requirements. Target

	export opportunities linked to the Two Ports and Dube Tradeport
Expand the Agricultural Sector	- Livestock Farming Activities needs to be expanded - Focus on Niche markets such as essential oils, Medicinal Plants and other niche market products - Grow subsistence farming activities into Commercial Activities - Increase productivity of farming methods
Develop the Tourism Sector	Maintain and grow eco-tourism and beach tourism and cultural oriented tourism in conjunction with the Tourism Development Plan.

Source: Source: LED Strategy 2012

2.3.22. A HIGH ROAD ECONOMIC FORECAST

Justification for the High Road economic forecast of 5% growth per annum for the period 2010 to 2050 has been provided. The table below provides a comparison of various economic growth scenarios that can potentially play out in Ilembe and then confirms the implications of the 5% growth scenario in terms of Gross Value Added (GVA).

Table 27: Ilembe Gross Value Added Estimates 2010 to 2050 In R Million

YEAR		ANNUAL GROWTH RATE		
2%	4%	5%	6%	
2010 GVA	R 10,241	R 10,241	R 10,241	R 10,241
2020 GVA	R 12,484	R 15,160	R 16,682	R 18,341
2030 GVA	R 15,218	R 22,440	R 27,173	R 32,845
2040 GVA	R 18,551	R 33,217	R 44,262	R 58,821
2050 GVA	R 22,613	R 49,169	R 72,099	R 105,340
Per Capita GVA 2010 (R)			R 16,725	
Per Capita GVA 2050 (R)		R 11,321	R 24,615	R 36,095
				R 52,736

Source: Ilembe Regional Spatial Plan Consolidated Report (July 2013)

From the above it evident that growth continuing at a below expected 2% will see poverty levels, in this case measured in terms of GVA per capita, increase significantly by 2050. A 5% per annum increase will, however, see the 2050 GVA being substantially higher and will, despite the nearly fourfold increase in population, also contribute to a threefold increase in per capita GVA.

The 2050 structure of the economy will guide the future allocation of land for the various sectors of the economy. In the case of the manufacturing sector it was estimated, using current eThekweni standards as a guideline, that over and above the 807 hectares of industrial land already available in Ilembe a further 4 000 hectares of industrial land would be required by 2050, or nearly 100 hectares per year, if the anticipated contribution of the industrial sector to the economy is achieved.

The settlement patterns in the four municipalities vary significantly, viz.

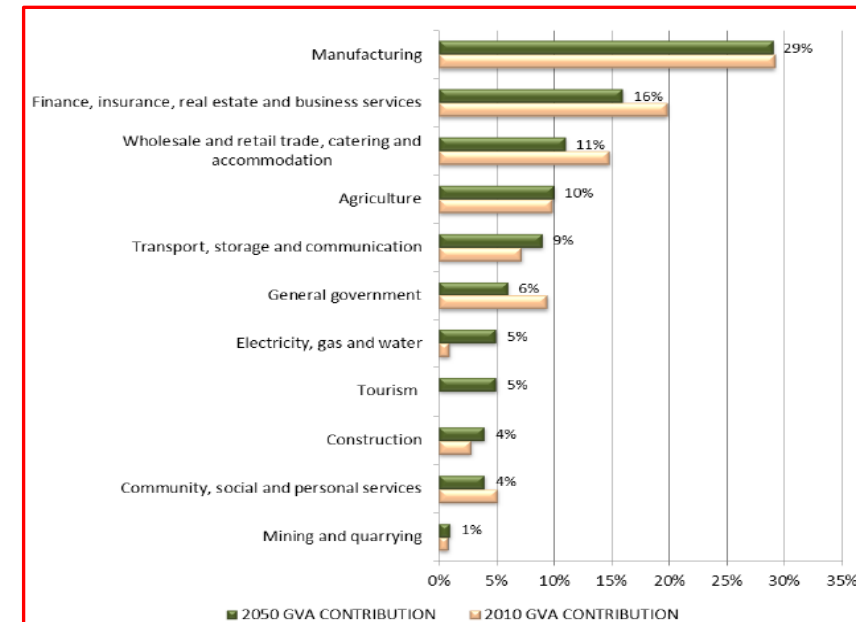
- KwaDukuza (urbanised population and commercial agriculture),
- Mandeni (substantial urban areas, but with traditional settlement areas and agriculture),
- Maphumulo (substantially traditional settlement), and
- Ndwedwe (substantially traditional settlement with some commercial farming).

Major formal commercial centres in the District include KwaDukuza, Ballito and Mandeni / Sundumbili, with industrial activity in the District historically concentrated in Stanger and Isithebe, as well as at the various sugar and paper mills.

The rural nodes of the Ndwedwe and Maphumulo Municipalities are underdeveloped. Both the Ndwedwe and Maphumulo Villages have received regeneration planning attention in the past, but experienced limited implementation to date. Agriculture in the area is dominated by sugar cane production in the coastal strip and small cane farming

activities in inland areas. In recent years the vegetable production capacity of the area has grown and tunnel farming has been promoted.

Figure 13: Actual 2010 and Forecasted 2050 GVA Contribution per Sector



Source: Ilembe Regional Spatial Plan Consolidated Report (July 2013)

2.3.23. STANDARDS FOR PROVISION OF FACILITIES

The former KwaZulu-Natal Planning Commission embarked on an exercise to determine the correct standards for provision of facilities within the province. The findings of these studies was published in the in a document titled "Standards for the Provision of Social Facilities in KwaZulu-Natal" of which the standards are displayed in the table below. In addition to the standards for service delivery, the table below

depicts the required facilities based on the said standards; it further depicts the existing facilities, and then calculates the shortfall of facilities, which will give an indication of the needs of the municipality.

From the table (attached overleaf) it is clear that the Mandeni Municipality falls far short of the requirements set by the KwaZulu-Natal Planning Commission. It needs to be noted that the requirements set by the KZN Planning Commission is not a legal requirement, but a guideline which can be used. It therefore needs to be determined if the Mandeni Municipality will accept these standards, or whether a new set of standards will be developed to fit the needs and means of the municipality. In order to guide the decision on development of a new set of standards, the current rate of provision for the known facilities in the municipality is as depicted in the table overleaf.

18 SWOT ANALYSIS

The SWOT analysis is based on the existing situation within the municipal area and focuses on the human, social, physical and economic resources that determine the status quo.

Table 28: Mandeni SWOT Analysis

Mandeni Strength, Weakness, Opportunities and Threats Analysis	
STRENGTHS	OPPORTUNITIES
- Natural landscape (Coastal area). - Conservation areas. - Good agricultural land - The P415 as a municipal wide corridor. - Highest rainfall in the whole region. - Most industrialised area within	- High potential for Tourism and preservation of natural habitats. - High potential for agriculture - Increasing investment through the development of the P415 development corridor. - High rainfall increases the availability of water to the municipal area and overall

Mandeni Strength, Weakness, Opportunities and Threats Analysis	
STRENGTHS	OPPORTUNITIES
Ilembe. - Increasing population. - Well serviced in terms of health facilities and schools (primary and secondary). - The Municipal area is well serviced with electrical infrastructure	region. A high population indicates a greater labour pool as 51% of the population is of an employable age.
WEAKNESSES	THREATS
- Increase in tourism and demand for coastal settlements . - Low levels of higher education. - lack of employment opportunities. - A majority of the roads are gravel. - Relatively young population. - Low levels of generation of income. - High levels of inequality between urban and rural areas (urban-rural divide).	- Strain on the coastal areas and risk of encroachment. - Increasing population puts pressure on existing infrastructure and resources. - Low levels of income indicate a low tax base. - Odour problems in residential areas as a result of the industrial area (SAPPI paper mill). - Emigration from rural areas which may put pressure on urban infrastructure and cause an oversupply of labour. 45% of the population falls within the "childhood" indicating a greater need for schools, childcare centres, skills training centres and social facilities.

19 DEVELOPMENT VISION

2.3.24. Community Based Development Challenges

In terms of Municipal Systems Act 2000 regarding community participation as critical tool for effective government and Section 16 of the Act requires that a culture of community participation be developed. Thus, Section 17 of the Act talks about mechanisms, processes and procedures for community participation.

The Mandeni Municipality is confident that the public participation has been the cornerstone of the preparation of the 2012-2016 IDP. The preparation of the 2002 IDP the Municipality formulated a number of community based structures, mechanism, process and procedures which are used to encourage public participation in matters of local Government.

Participation and consultation took place at different levels; the initial focus was to capacitate the local community about the concept of IDP and their role in the preparation, rather than being exclusively applied for assessment of services and prioritisation of needs or problems in preparation of the IDP.

The following are specific issues identified by the community:

- The upgrade of the road to Dokodweni beach off the N2 to the black top.
- The maintenance of the storm water drainage to control sheet flow and road erosion.

- The use of MIG funding and other grant as means of job creation, labour-intensive community based road maintenance programs.
- There is a need for community facilities such as the library, Sports fields, Crèche halls and Clinic to cater for the rural communities.
- There is a need for Deepings Tanks.
- There is a need for additional Pension pay-out points within wards.
- There is a need for the provision of water to pension pay out points and shelter where possible.
- There is need for community training centre in the area.
- There is a need for the AIDS awareness campaigns to educate people about AIDS.
- There is a need for the orphanages, care givers and hospices.
- The establishment of effective Community Policing Forums and provision of training thereof.
- The provision of rural housing projects.
- Optimization of the tourism potential presented by the coast.
- Agricultural projects for emerging black farmers who intend to practice commercial farming.
- Fencing of Community Gardens.
- Community based programs for removal of alien plants and vegetation.
- Facilitation of the training of life guards to mentor beach.
- Maintenance and upgrading of Matikulu Nature Reserve.
- Facilitation of public access to the beach.

In summary, the key priority issues identified are:

- **Roads:** Most of the wards, especially those that have gravel roads were much concerned about the state of Gravel roads & Access roads. There is a dire need for the maintenance and upgrade of the entire existing road infrastructure throughout the municipal area.
- **Electricity:** Most of the wards do not have access to electricity especially the rural community. There is a need to provide electricity supply to all areas that are not already not covered
- **Water:** The issue of the lack of portable water was raised and identified as the pressing need, in most instances the water schemes are not functioning. There is a need for the provision of water standpipes to the local community who do not have access to water.
- **LED:** A significant number of wards indicated that there is pressing need for the LED projects focusing in Job creation, Poverty Alleviation, Promotion of SMMEs and Cooperatives.
- **Social Services:** Most of the wards raised concerns with the lack of community facilities such as Housing, Sport & recreation, Welfare, Facilities, Cemeteries and Health Facilities. Youth & Woman empowerment was also raised as the central feature of the Municipal Development and service delivery.

2.3.25.IDP Identified Challenges

The main challenges for the Municipality as per the situational analysis in this IDP relate to lack and or poor infrastructure services i.e. Water, Electricity, Roads, socio economic spatial and housing issues as well as the issues around social facilities and services. The following is the summary of key priority issues identified

- **Roads:** Most of the wards, especially those that have gravel roads were concerned about the state of gravel roads and

access roads. There is a dire need for maintenance and upgrade of the entire existing road infrastructure throughout the municipal area.

- **Electricity:** Most of the wards do not have access to electricity especially the rural community. There is a need to provide electricity supply to all areas that are not already covered.
- **Water:** The lack of portable water was raised and identified as a pressing need as in most instances the water schemes are not functioning. There is a need for the provision of water standpipes to the local community who do not have access to water.
- **LED:** A significant number of wards indicated that there is pressing need for LED projects focusing on job creation, poverty alleviation, promotion of SMMEs and co-operatives.
- **Social Services:** Most of the wards raised concerns with regard to the lack of community facilities such as housing, sport and recreation, welfare, cemeteries and health. Youth and woman empowerment was also raised as a central feature of municipal development and service delivery.
- **Housing Development:** The Municipality is faced with serious demands for a variety of housing development ranging from low income/ PHP Subsidy, middle income/ social housing and high income.

STRENGTHS

- Mandeni is the only coastal municipality that maintains its rustic and naturally aesthetic environment.
- The Municipality area has an international fibre optic cable which presents a world of opportunity that is waiting to unblocked.
- The proximity to the proposed Dube Trade Port and King Shaka International Airport has important implications for the future

development of manufacturing, agriculture and tourism in Mandeni. New markets will be opened up accessed

- Strategic location of Mandeni Municipality mid-way between the two major economic power houses in the KZN Province, i.e. Durban and Richards Bay present opportunities for expansion of Industrial Area, Tourism Development and Commercial/Property development.
- The transport infrastructure linkages N2 and railway lines present a good opportunity for investment.
- Isithebe Industrial estate is the important centre for manufacturing in the province as Richards bay and Durban are almost reaching saturating point.
- The Municipal area has high potential agricultural land.
- The Municipality enjoys good climate favourable for tourism.
- The Municipality has rich natural resources Tugela River, Nyoni River, Matikulu River, Matikulu Nature Reserve, Ingwenya Nature reserve.
- The area has a rich cultural history linked to Zululand.

❖ **WEAKNESSES**

- The area is characterized by high unemployment rates with the number of people being employed between 2005 having decreased.
- Tourism potential is underdeveloped.
- Little or retail competition, Retail sector.
- Traditional Authority areas are underutilized.
- Economic leakage due to employees living outside the area.
- Limited number of people with technical skills.
- High HIV/AIDS incidence starting to manifest in the workplace.

2.3.26. Mandeni's Development Vision

❖ **IDP VISION**

“TO BE A RELIABLE PEOPLE CENTERED AND SUSTAINABLE ECONOMIC HUB BY 2030.”

This vision is derived from current realities and can be broken down into five key strategic goals:

- Good Governance (sound governance and ethical conduct are the pillars of success in local government)
- Improving the quality of life of our citizens (eradicating unemployment, poverty and inequality)
- Improved and sound revenue (debt collection)
- Providing social and economic infrastructure (eradicating backlogs and providing strategic infrastructure to grow the economy)
- Grow the economy and create jobs (attract investment and market Mandeni as an investment node)
- Promote spatial equity and protect natural resources (the natural and rustic character of the municipality should be our selling point; beaches, nature reserve, Tugela River).

❖ **MISSION**

We will achieve our mission by:

- Continuously striving for better
- Excelling in all key processes of service delivery
- Continuously listening and responding to our communities and all stakeholders

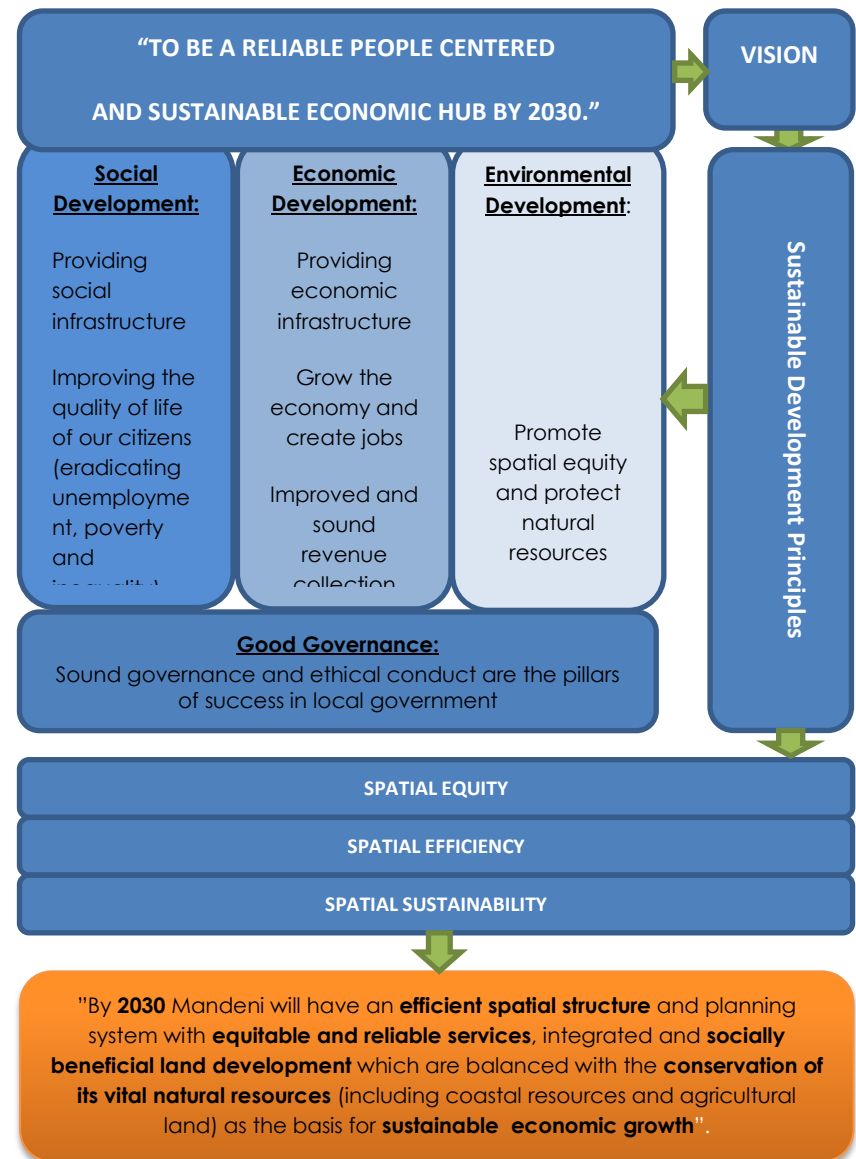
- Remaining financially astute

2.3.27. Spatial Translation of the Vision

As the central future concept for development within the municipality, this vision needs to be translated spatially in order to ensure the development of land as well as the future management of all resources all work towards the achievement of this vision and does not contradict it.

In translating the development vision of the municipality, the core elements of the vision is firstly identified and then expressed in terms of spatial concepts, responsibilities or challenges. The entire Spatial Development Framework which then follows should ideally be structured and linked to the **core spatial challenges** based on an interpretation of the overall development vision as illustrated below:

Figure 17: Spatial translation of IDP Vision



2.3.28. Current Trends and Key Spatial Issues

As indicated before, the core spatial challenges of the Spatial Development Framework would be to ensure spatial equity, efficiency and sustainability. However, current practices does not always promote these concepts and it is therefore vital to identify in which manner current trends does not impact on the achievement of these responsibilities and the eventual realization of the Vision. This analysis will assist in identifying key spatial issues to be addressed.

SPATIAL EQUITY		
TRENDS	EFFECTS	SPATIAL ISSUES
▶ Many communities do not have easy access to urban opportunities. ▶ Uneven distribution of employment opportunities exist especially between urban and rural areas. ▶ Public facilities and services are being scattered across community areas rather than grouped together at access points, although this is emerging in some areas such as	▶ It is expensive and time consuming for poor people to move to places of employment and social facilities. ▶ Limited employment opportunities result in high levels of commuter traffic, particularly east west movements ▶ If community facilities are scattered in different locations then the thresholds (number of people needed) to promote	1. Provision, upgrading and maintenance of key distribution routes and link roads to corridors. 2. Promotion of economic activities in closer proximity to the unemployed. 3. Clustering of social and community facilities at more accessible points. 4. Promotion of private sector investment in disadvantaged areas. 5. Spatial focus of

Wangu.

▶ While integration occur to some extent in major commercial and high activity areas e.g. CBD, for the most part socio-economic barriers continue to prevail. (E.g. very limited economic investment in Tugela Mouth and Nyoni)

local development activities and access to opportunities is decreased.

▶ High degrees of segregation between places of work and home and uneven access to social and economic activities within community areas.

resources to redress inequalities in services standards and quality of life.

SPATIAL EFFICIENCY		
TRENDS	EFFECTS	SPATIAL ISSUES
▶ Current land use patterns do not support principle of efficiency. ▶ Economic investment mainly in western and south western segments of the urban area. ▶ Centrally located urban area continue to have generally low density development ▶ The economic	▶ The poor conditions of certain economic distributors are costing the traveller in terms of time and money. ▶ Effective transport service is hampered by road conditions which impacts on accessibility of opportunities for the poor. ▶ The loss of employment opportunities in the	1. Provision, upgrading and maintenance of key distribution routes. 2. Infill planning is required to make the delivery of services more cost effective. 3. Stimulation of economic districts and nodes to promote sufficient market thresholds. 4. Planning around bulk capacities to

growth path of industry is decentralising to outer areas and requires new platform infrastructure and logistics to be built. ► In situ low income housing is being formalised on the urban periphery. ► Lack of structured spatial economic strategy to guide private investment.	mining industry results in an increased pressure on urban economic opportunities. ► The location of housing on the edge of urban periphery means long and expensive journeys to work and social facilities. ► Economic investment occurs on an ad hoc basis and is scattered by sporadic opportunities.	ensure more cost effective developments. 5. Promotion of economic opportunities in close proximity to residential functions (where sustainable).
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SPATIAL SUSTAINABILITY		
TRENDS	EFFECTS	SPATIAL ISSUES
► Insufficient maintenance of existing Council physical infrastructure. ► Urban Open Spaces is being lost to other competing land uses.	► The people in outlying areas have low per capita incomes, which often means that full services are unaffordable and this leads to non-payment which is financially unsustainable for the City and the poor.	1. Plan service standards in line with economic and environmental affordability. 2. Conservation and maintenance of infrastructure and resources are better than replacement.

► Economic activity and human settlements are contributing to air and water pollution. ► Current poor land management in human settlements, the clearing of natural vegetation, conversion of agricultural land and inadequate storm water provisions have high costs for remedial and mitigation actions, e.g. damage to roads and houses after heavy rains.	► Once disrepair reaches a critical point complete reconstruction is required at a great cost. ► Loss of a free services within the green space e.g. water supply, wasted treatment, flood attenuation, food production, nutrient cycling cannot be viably replaced through engineering services. ► Pollution impacts on human health and living conditions and limits future industrial development potential, with implications for export competitiveness, tourism potential and health costs. ► Pressure on the upper river catchments areas impacts on management issues related to air quality, flooding, and water quality in the entire Municipal area.	3. Fragmented spatial structure causes sprawl and should be countered. 4. Planning should promote the sustainable use of resources, rather than exclusion of use. 5. Improved land management measures to control potential conflicts are required.
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	► Poor land management impacts on community health and economic potential such as agriculture and peri urban tourism potential.	
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These challenges are crosscutting in nature and needs to addressed within all the development sectors identified, within all of the development priorities as well as within all geographical areas of the municipality; urban as well as rural settings. Thus these three spatial challenges will form the basis of the entire Spatial Development Framework in order to achieve the municipal development vision.

2.3.29. Spatial Development Objectives

In order to address the above issue, a set of objectives have been formulated, based on a review of the objectives and strategies contained in the approved Mandeni Integrated Development Plan and represent a spatial refinement thereof as follow:

Table 29: Development Objectives

Development Sector	Objectives
SPATIAL DEVELOPMENT	- To promote a compact urban structure through urban infill and densification within the primary node of Sundumbili/ Mandeni. - To create a logical hierarchy of settlements to support effective service delivery aligned with

Development Sector	Objectives
	intervention zones and defines level of services
HOUSING	- To pro-actively identify sufficient land for future housing development. - To quantify housing backlogs and future needs - To locate new housing development within a rational spatial structure around activity points, rural settlement clusters and within specific intervention zones.
ENVIRONMENT	- To protect ecologically sensitive natural areas - To establish a municipal wide open space system, comprising ridges, mountains, rivers and dams. - To respect the flood lines and riverine areas of the major rivers and dams. - To respect the conservation guidelines for Nature Reserves such as the Amatikulu Nature Reserve.
TRANSPORT	- To focus urban development along major public transportation routes to establish transport corridors in line with development corridors. - To establish public transport access points (drop-off/ collection points) located at Rural Service Delivery Centres and Activity Points.
SERVICE INFRASTRUCTURE	- To locate urban development, specifically housing development, within reach of bulk municipal services. - To spatially inform the future planning and delivery of bulk municipal services.
COMMUNITY FACILITIES	To ensure that any future settlement development include the full range of

Development Sector	Objectives
	community facilities to ensure viable and sustainable living environments. • To ensure that community facilities are clustered with business facilities in service delivery centres. • To ensure that service delivery centres are located in such a way that ensures equitable access for all communities. • To provide social facilities according to accepted planning and development standards and guidelines.

2.3.30. Spatial Development Strategies

Although the current spatial pattern is inefficient and expensive, one has to admit that it is a fixed spatial pattern. Therefore, the aim should not be to alter the existing spatial structure, but one should rather guide its future development towards a better, more efficient and more cost-effective urban structure. In short, one should start addressing the weaknesses of the spatial structure through the planning and development of its future growth. Five strategies can be adopted to achieve this.

19.1.1 Strategy 1: Urban integration

One should move away from the fragmented and sprawling urban structure existing within the areas of Sundumbili. Consolidating all the existing outlying settlements with each other and the business core area should achieve this. This can be done by filling in the unpopulated areas between these settlements with the future

growth of these settlements. By doing this, the settlements will join together and towards the business core area, forming consolidated urban areas. Such an integrated urban structure will form the bases for providing cost-effective municipal services and public transportation infrastructure. It should however be noted that the position of the relatively large industrial area of Isithebe, this integration path will need to stretch fairly wide towards Nyoni.

19.1.2 Strategy 2: Bulk infrastructure development

Providing bulk infrastructure can be an important tool to achieve the above-mentioned spatial pattern and will, in turn, result in cost savings when developing the bulk infrastructure. All future bulk infrastructure should be developed within the urban areas described above; because where bulk infrastructure is developed, urban development will follow. In this manner, bulk services will force future urban development into a more rational and desirable urban pattern. At the same time, the location, implementation and functioning on the bulk services network will be rationalised.

19.1.3 Strategy 3: Equitable access to social services

As was mentioned, the settlements located on the outskirts of the Municipal Area are located far from the social services provided in the Mandeni core area. This result is high public transportation cost for the poor living in these areas to access these services. It is imperative that a number of these social services be provided in these outlying settlements through the development of Service Delivery Centres. A hierarchy of such SDCs, containing facilities such as clinics and community centres, will place these facilities closer to these settlements, thus making them more accessible and achieving greater urban integration.

19.1.4 Strategy 4: Land use and transportation integration

In South Africa, public transportation costs make up a large proportion of household incomes, a cost that is augmented by the sprawling nature of our cities. Land use development and public transportation are therefore interlinked and affect each other greatly. Urban corridors create the optimal land use structure for the cost-effective operation of public transport systems. Public transportation works most effectively in a linear pattern, as opposed to winding its way through a widespread urban area. Such a linear land use pattern also benefits commuters, because it implies that residential settlements hug the corridor road or railway line, placing commuters within short walking distances of such public transportation termini.

19.1.5 Strategy 5: Protection of agriculture and open space

A way to integrate urban areas is to deliberately protect high-potential agricultural areas and ecologically sensitive natural open spaces. By rigorously protecting such areas, urban areas are prohibited to sprawl freely and are therefore forced into denser urban agglomerations. Therefore, such an approach not only protects agriculture and the environment, but also helps create a more rational, cost-effective and manageable urban structure.

2.3.31. Mandeni's Spatial Development Thrusts

The SDF challenge and key issues that need to be addressed in the Mandeni context revolve around the fact that the communities residing in the rural areas are more severely affected by aspects such as poverty and service backlogs than the urban community. Community up-liftment and economic empowerment should involve

integrated projects of social infrastructure development, environmental management and local economic development.

Empowerment programmes should essentially be focused on the rural areas. The general improvement and growth of the economy of ILembe should focus on economic development, job creation, and attraction of investment and maintenance of development standards within the urban areas. The spin-offs would ensure the future sustainability of this area and enable the Mandeni community to improve their quality of life.

19.1.6 Strategic Thrust: Accelerating Growth and Development Strategies

- Promote investment within defined nodes.
- Promote investment that contributes to regeneration and renewal.
- Promote investment in industrial hubs and introduce incentives.
- Participate in the iLembe Shared Services Centre as a seat of capacity building and fast-tracking of delivery.
- Promote investment along existing and new corridors.
- Optimising on the opportunities presented by the Umhlathuze-ILembe-eThekweni Corridor to act as catalyst to accelerate and share growth and development in the municipality and the district.
- Re-enforcing and strengthening the Mandeni - Sundumbili hub as main driver of economic growth and development in the municipality.
- Specific and focused packages and interventions to stimulate the competitive advantage of the dominant agricultural, tourism and manufacturing sectors in the Municipality.

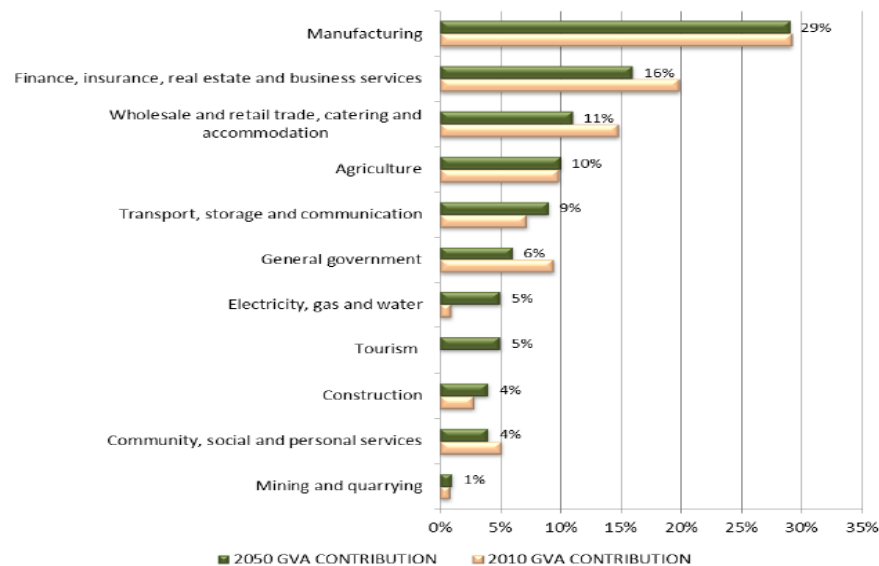
19.1.7 Strategic Thrust: Sharing Growth and Development Strategies

- Eradicate the backlog in the provision of basic services such as water, sanitation, electricity and housing, especially in the rural areas and in the informal settlements.
- Eradicating poverty and addressing specific areas in reducing the number of people below MLL.
- The HIV/AIDS pandemic and its impact on regional demographics.
- Provide sufficient, affordable, reliable infrastructure services.
- Encourage rural settlement along road networks and existing Infrastructure
- Undertake skills development and maintain an updates skills database within the municipality, incorporating EPWP and ASGISA principles.
- Establish and promote PPPs.
- Establish cooperatives to maximise economic opportunities in the agricultural sector.
- Regularly maintain and upgrade existing infrastructure.
- Promote cultural and community based tourism.
- Promote integrated tourism development.

19.1.8 Strategic Thrusts: Environmental Sustainability Strategies

- Preserve and protect the natural environment through the application of appropriate conservation management.
- The protection of natural water resources.
- The maintenance and preservation of a pristine environment.

Figure 14: Strategic Thrusts: Environmental Sustainability Strategies



Source: Black Balance Projects

20 SPATIAL DEVELOPMENT STRATEGIC FOCUS

The Spatial Development Framework Concept integrates the spatial planning directives identified and translates it into a spatial vision for the city. The Spatial Development Concept is structured around the following building blocks which are interrelated:

1. Development Corridors
2. Nodes and Activity areas
3. Natural Environment

2.3.32. DEVELOPMENT CORRIDORS

The major structuring element for determining the existing and future concentration of development, activity and investment in the Mandeni Municipality consists of an access and movement hierarchy that has been established through the major internal and external national and provincial linkages, including the N2 and the R102.

20.1.1 Regional Development Corridor

Identification of the Corridor

As indicated before, the Provincial Spatial Economic Development Strategy has identified the N2 route between uMhlathuze and eThekweni as a primary provincial corridor. In support of this route the R102 practically serves a regional development corridor within municipalities along this route. This is mainly due to the fact that no direct accesses onto the N2 from potential developments are envisaged and the result in other areas such as KwaDukuza has already been that developments cluster along the R102 for localised and regional access and in close proximity to the N2 route.

Management Strategies and Public Interventions

Public interventions envisaged in this area relate to:

- a) Constant Inter Governmental communication and co-ordination relating to the development of the provincial primary corridor and its impacts on the Mandeni Area.
- b) Developing a localised Corridor Development Strategy which will focus on spatial structure, infrastructure provision and attracting both public and private sector investment.

20.1.2 Activity Corridor

Identification of the Corridor

The P415 is identified as a municipal wide activity corridor crossing over N2, linking the coast and the hinterland; it runs from east-west linking the Tugela Mouth Service Centre and Mandeni/ Sundumbili Primary Node. From the primary node the activity corridor diverge from the P415 in a northern direction along the MR459, passing isiThebe towards Nyoni and Amatikulu.

The Spatial Development Framework plan illustrates that this activity corridor is characterised as a mixed use development corridor linking all the different land uses and development areas within the municipality while provided excellent access to the R102 and N2. The promotion and development of this activity corridor as the vital spine to this municipality cannot be understated.

Management Strategies and Public Interventions

Public interventions envisaged in this area relate to:

- a) The upgrading of the roads along the corridor. Currently the P415 from the N2 to the east coast is gravel it is therefore of a strategic importance that this road is upgraded to black top as means to support the development aspiration as set out in the Siyaya Coastal Development Framework Plan.
- b) Developing a localised Corridor Development Strategy (including both the regional corridor and activity corridor) which will focus on spatial structure, infrastructure provision and attracting both public and private sector investment.
- c) Ensure multimodal transport integration occur along this route at key points.

20.1.3 Link Roads

Identification of the Link Roads

The following routes have been identified as important link roads to ensure secondary access to both the Regional Development Corridor and the Activity Corridor:

- The **P709** as link road crossing over N2 linking the Amatikulu Nature Reserve through the Wangu Activity Point, via Nyoni with the Isithebe Industrial Node east-west, linking the coast with the hinterland. This is the road has high economic potential and is vital for the expansion of the Industrial area and development along the coast. Currently this road is gravel again strategic intervention to upgrade the road into black top surface is of high importance.

- The **P532** provide another important link between the Mandeni area directly towards Nyoni. If upgraded it could primarily provide an alternative access route to both isiThebe and Nyoni and in so-doing alleviate some of the freight traffic along the activity corridor. This link road will in future further provide alternative access to the planned urban infill areas and serve as the boundary between urban development and the future agricultural land area.
- The **P710** route connecting the Urban Complex of Mandeni with other regional inland areas outside of the Mandeni municipality is important not only to serve households from those areas by providing access to services and opportunities within the complex, but also vital for the economic growth of the complex itself. Economic studies conducted during the Sundumbili Urban Regeneration study found that that the complex serve a major regional commercial centre and that economic thresholds to the centre is to a large degree made up of households outside of the Mandeni municipality.

Management Strategies and Public Interventions

Public interventions envisaged in this area relate to:

- a) The upgrading to black top surfaces of all the link roads to perform the distribution function intended. As these roads are provincial roads, this will imply that the municipality engage with the Department of Transport in order to co-ordinate the upgrading of these routes.

2.3.33. NODES AND ACTIVITY AREAS

20.1.4 Primary Node

Identification of the Node

The Primary Node surrounding the Mandeni / Sundumbili business district has been identified as the primary service centre within previous IDPs of the municipality as well as the iLembe Spatial Development Framework. As the heart of the emerging core urban complex encompassing Mandeni, SAPPI, Sundumbili and Isithebe, this node performs a function to the surrounding regional settlements beyond the borders of the Mandeni Municipality.

The conceptual boundaries of the primary node have been defined within the Sundumbili Urban Node Regeneration project funded by the Department of National Treasury through the Neighbourhood Development Partnership Grant (NDPG). The project aims to improve the quality of life while stimulating economic regeneration within the three main activity nodes of the Mandeni civic node, the Sundumbili Core Business node and the mixed civil/ commercial node including the linkage routes between these three nodes as a combined primary node where most commercial activity and social functions conflate.

20.1.4.1 Management Strategies and Public Interventions

Public interventions envisaged in this area relate to:

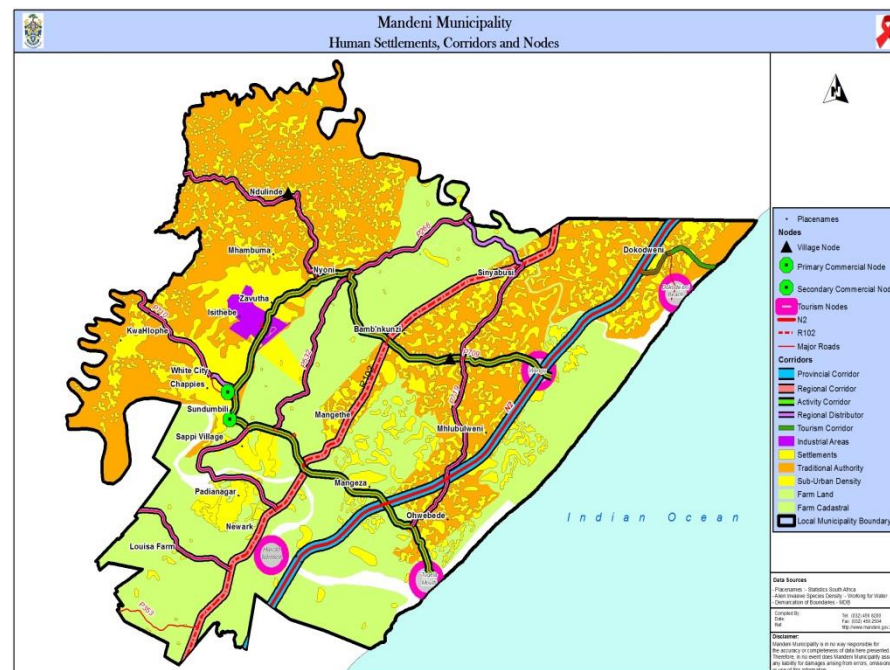
- a) Implementation of the Sundumbili Urban Node Regeneration project funded by the Department of National Treasury through the Neighbourhood Development Partnership Grant (NDPG)

fund amounting to R132 million public investments over a three year period.

- b) Extending the Mandeni Scheme to the entire primary node area in order to more effectively manage land use within the area. The intention is to stimulate mixed use development within publically acceptable and responsible parameters.

- c) Promoting and establishing Public-Private-Partnerships in the development and management of the node.

Map 2: Mandeni Development node



Source: Mandeni Municipality: GIS

20.1.5 Industrial Node

Identification of the Node

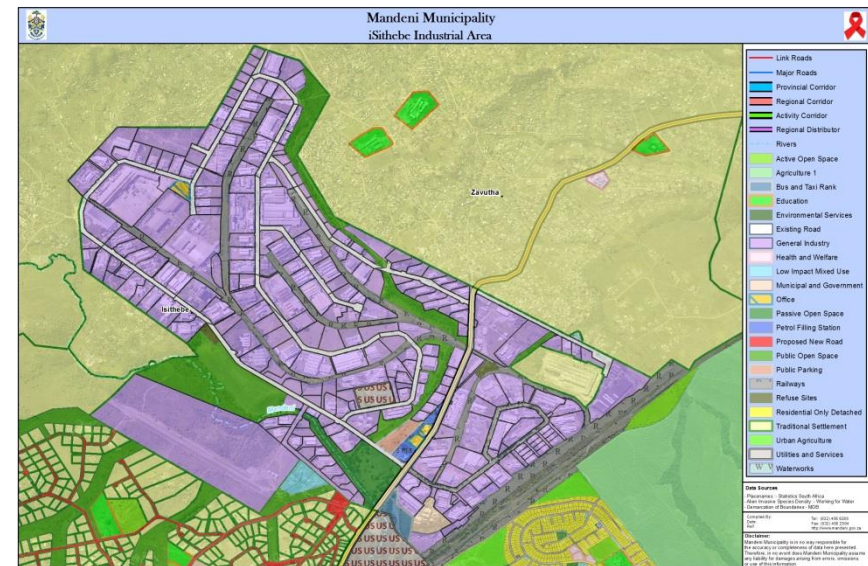
The isiThebe Industrial Park and potential expansion around it, mainly forms the industrial node within the municipality. Although the SAPPI plant represents a major industrial area and some additional light service industrial developments are envisaged around it, it is not intended to serve as a growing industrial node, mainly due to its locality.

Management Strategies and Public Interventions

Public interventions envisaged in this area relate to:

- a) Preparing a Local Area Plan for the Urban Complex of which this node forms part and ensure that the access and support services within the areas support the continued and uninterrupted functioning of not only the node, but also the ability of surrounding local employees to access the area.
- b) Investigation and implementation of a more direct link road between the node and the R102 Corridor.
- c) Co-ordination of regional marketing efforts of the industrial node in conjunction with Enterprise ILembe.

Map 33: Isithebe industrial node



Source: Mandeni GIS

20.1.6 Rural Service Centres

Identification of the Centres

The identified Rural Service Centres themselves are rural in nature, but due to their locality serve as vital service centres to especially commercial farmers and communities from traditional authority areas. Nyoni and Tugela Mouth, both located along the Activity Corridor, have been identified as rural service centres and often serve as residential destinations in their own right.

Management Strategies and Public Interventions

Public interventions envisaged in this area relate to:

- a) Provision of constant, uninterrupted services to these centres as they in turn provide a vital service to surrounding rural communities.
- b) Promoting the clustering of higher level social services from various departments within these centres.
- c) Establishing key intermodal transport points within these centres as part of the integration into the Activity Corridor.
- d) Maintain hierarchy of nodes between these centres and the primary node.

20.1.7 Activity Points

Identification of the Points

These activity points are identified by the existing and (potential future) clustering of primary services and often at key intersections of access routes in especially the Traditional Authority Areas. These

points serve as the first entry point to service delivery in the rural areas and provide a plausible threshold for the clustering of groups of small, localised businesses thus providing the starting points for the emergence of mixed use activity nodes. The Wangu area serves as typical example of these activity points.

Management Strategies and Public Interventions

Public interventions envisaged in this area relate to:

- a) Promoting the delivery of primary social services at these points.
- b) Ensuring that the access intersections associated with these points are upgraded and maintained.
- c) Providing for public transport facilities at these points.
- d) Supporting small business development at these nodes as first economic entry for many entrepreneurs.

20.1.8 Rural Settlement Clusters

Identification of the Points

In terms of the Detailed Settlement Definitions (contained within the DSM Manual of the Department of Water Affairs and Forestry) a non-formalised settlement with between 500 to 5000 persons residing in it is classified as a village. Although the same definition parameter is used, this SDF refers to these areas as Rural Settlement Clusters as the distinction between one village to the next is not always as definable. A total of 12 such rural settlement clusters have been identified within the municipality by using population

density data. These include (amongst others) the villages of Dokodweni, Mphumulandoda, Mhambuma, Nembe, Indlondlo, Wetani and Ohwebede.

Management Strategies and Public Interventions

Public interventions envisaged in this area relate to:

- Focussing priority rural water and sanitation projects to these areas and centred on servicing these communities.
- Maintaining access roads to these areas to at least the current standard (mainly gravel road surfaces).

2.3.34. NATURAL ENVIRONMENT

The intention of utilizing the natural environment as one of the significant structuring elements in the development of Mandeni has been described earlier.

The appropriate maintenance of the natural environment, its rehabilitation where necessary, and its adequate protection and management has been suggested to be of major importance for both the creation of decent living environments, the development of tourism and recreation activities and the further development of the agricultural potential of Mandeni.

The SDF identifies the major and minor river valleys, coastal areas, escarpments, mountains and other areas identified as being of environmental significance. The iLembe District Environmental Management Framework then suggested relevant environmental protection areas which need to be considered before any development is proposed or approved. Further detail in terms of specific areas and resources will need to be established via an environmental management plan. The table below outlines the management zones to be considered in terms of Environmental Management of the municipality.

Table 30: Environmental Management Zones

Management Zone	Opportunities	Management Considerations
Socio-Economic	• Agri- Processing • Timber and furniture industry • Tourism • Renewable techniques	• Infrastructure proximity to transport network • Focus on future growth and development • Green Design and Technology inclusion

Management Zone	Opportunities	Management Considerations
		• Connection of growth along the coast to poverty alleviation efforts inland.
Heritage	• Local Architecture • Formalizing existing heritage committee • Enforcing heritage impact assessment	• Improve sense of place and cultural tourism • Improve Tourism industry • Economic development
Biodiversity	• Land Use Management System used to protect core assets • discourage settlement along sensitive areas • Encouraging landowners to formally register areas of high conservation • Invasive alien control • Innovative waste management	• Inform Land Use Planning • Natural corridor for biodiversity • Job creation through recycling • Reduce demand of natural resources
Water Resources	• Creating open spaces near watercourses • Innovative water use & conservation strategies • Implement river health and adopt River Programmes • Wetland and Riparian area corridor protection	• Natural corridors for biodiversity • Effective use and treatment of fresh water • Improve water health and rehabilitate riparian • Development and implementation of

Management Zone	Opportunities	Management Considerations
	and management plan	stormwater network
Agriculture	- Exporting Agricultural Produce through the Dube Trade Port - Divers Agricultural Sector - Bio-resource program	- Transportation and Agri-processing opportunities - Influence on food security , poverty and unemployment - Bio-fuel impact assessment
Air Quality	Establish an air quality monitoring unit to audit emissions from industrial operations	Alternative technologies and international clean production standards.
Waste Management	- Development of an integrated waste management plan for the region. - Waste management to green economy - Recycling centre - waste sorting station	- Investment in renewable technologies - Training and skills development - Job creation
Mining	- Quarrying and chalk extraction identified - Sand Mining opportunity in Ndwedwe	- Collaborate with authorities - Water recycling / re-use - energy efficiency, - pollution reduction, - rehabilitation efforts

Source: iLembe DM EMF and Strategic Environmental Management Plan 2013

Management considerations have been added which include indicators, determining factors or aspects to consider which could influence the outcome of such an opportunity. The management

considerations serve to inform the process of identifying environmental management zones, and specifying management guidelines for particular zones or features within iLembe

Table 31: Constraints identified for the iLembe District Municipality's development

Constraint	Management considerations
Provision of municipal services	Provision and maintenance of road, electricity, water and Sanitation distribution networks
Impacts of climate change	Impact on watercourses, agricultural resources, human concentrations, land-sea interface(tidal surges, extreme events etc)
Land access	Trust lands vs. areas of expansion and development
Economic activity	Significant economic activity in KwaDukuza and Mandeni as opposed to the rural areas of Ndwedwe and Maphumulo
Topography	Natural features, e.g. ridges, agricultural potential, water courses; Rural settlements vs. Urban areas
Proposed Urban Development line	Constraint to agricultural protection
Emerging ribbon development foot print	Urban sprawl- particularly in coastal corridor and rural accessibility corridors
Regional connectivity	Lack of planning; Lack of pedestrian facilities; Lack of effective public transport; Lack of integration between rural (low income)hinterland and coastal corridor(high income)
Lack of knowledge of heritage resources and a lack of	Identification of areas of significance; Identification of areas under threat

Constraint	Management considerations
management and protection	
Habitat and vegetation destruction	Degradation; Habitat of conservation worth status, and sensitive areas
Limited formal conservation of vegetation types	Formal and informal conservation areas
Pollution of water courses and the atmosphere	NFEPA status of water courses; Known point sources of pollution
Destruction of wetlands and riverine environments	Increase in storm water volume and velocity (lack of flood attenuation), stream flow regulation, sediment trapping, phosphate trapping, nitrate removal, toxicant removal, erosion control, maintenance of biodiversity, water Supply for human use, cultural significance, tourism and recreation, education and research
Water Use License Authorization (WULA backlog)	Water Use Monitoring and Auditing related to: • Sand/stone mining; Artificial breaching; • Agriculture encroachment and poor farming practices; • Water abstraction; Faecal pollution; Organic pollution; Industrial pollution; and • Poorly situated urban development and infrastructure
Bulk water supply to the municipality is problematic	Access to basic services
Land use conflicts threaten high potential agricultural land	Limited large scale commercial cultivation potential in Maphumulo and Ndwedwe; Erosion/ soil loss/ veld degradation/ loss of agricultural land to development;

Constraint	Management considerations
	High potential agricultural land earmarked for urban development
Inadequate waste management	Waste management plan; Landfill site sand transfer stations
Habitat fragmentation	Urban and transport network
Poor catchment management	Degradation
Alien invasive species	Areas of invasion; Biodiversity loss Sugar
Lack of electrification in the rural areas Indicates probability of adverse indoor air quality	Access to basic services is a basic human right; Poor management leads to social impacts and pollution of the

Source: iLembe District Environmental Management Framework and Strategic Environmental Management Plan 2013

20.1.9 Management Zones

The following table depicts management zones identified by the iLembe District Environmental Management Framework for urban areas, and needs to be considered prior to the approval of any developments.

Table 32: Environmental Control in iLembe Management Zones

Management Zone	Compatible Activities	Incompatible Activities
Industrial Activity Zone	• Medium and light industry • Infrastructural service provision including transport networks • Renewable energy generation facilities • Water recovery and recycling	• Residential development • Heavy industry • Any activity that will result in pollution

Management Zone	Compatible Activities	Incompatible Activities
Infrastructure Zone	- Public transport network development - Sustainable urban drainage systems - Mitigation of impacts on biodiversity corridors	- Fragmentation of priority conservation areas and sensitive environments - Infrastructure that will result in unfiltered polluted run-off entering a watercourse.
Coastal Management Zone	- Small scale fishing Industry - Tourism activities - Protected areas - Private nature reserves	- Industrial Development - Any development that prevents the public to access coastal resources - Activities that pose a pollution risk to estuaries
Terrestrial Biodiversity Management Zone	- Tourism Activities - Grazing (subsistence Level) - Cultivation for Subsistence Purpose	- Estate Developments - Industrial - Retail & Commercial - Mining - Urbanization - Bulk Infrastructure
Stewardship Zone	- Grazing at sustainable level - Tourism activities - Protected areas - Private nature reserves	- Industrial Development - Large scale / dense development
Urban Settlement Zone	- Residential - Light industry - Renewable energy	- Heavy industrial - Sprawling development

Management Zone	Compatible Activities	Incompatible Activities
	projects - Urban open space and recreation spaces - Urban agriculture	
Commercial Agriculture Zone	- Natural Open Space/ Protected areas - Agricultural Supplies & Services - Farm Stalls - Conservancies	- Residential Estate - Urbanization - Mining and prospecting - Township establishment - Bulk infrastructure that can equally be provided through local scale distributed solutions
Rural Support Zone	- tourism Activities - Grazing (subsistence Level) - Cultivation for Subsistence Purpose	- Estate Developments - Industrial - Retail & Commercial - Mining - Urbanization - Bulk Infrastructure

Source: iLembe District Environmental Management Framework and Strategic Environmental Management Plan 2013

20.1.10 Global Warming

Under conditions of global environmental change, the protection of ecologically viable ecosystems is becoming increasingly important in meeting the health, social, cultural and economic needs of urban communities. The services provided by these ecosystems offer significant opportunities for local communities and infrastructure to mitigate the negative impacts of climate change.

The natural environment is most threatened by the transformation of natural areas (unregulated developments, sand mining etc), the uncontrolled spread of invasive alien species, climate change, and pollution. Given the current threats to biodiversity, and the projected impacts of climate change, the ILembe District Municipality must urgently invest in protecting, rehabilitating and managing the districts ecological infrastructure.

Pressures experienced general in Mandeni Municipality include: Agricultural Activities, Human Settlement and Urban Development, Encroachment into estuarine system and wetlands, Discharging into Estuarine system and wetlands, unmanaged spills, Storm water runoff, Water Abstraction and Impoundment, sand mining.

Mandeni Municipality has a variety of the environmental assets such as estuaries, rivers, coastal zone, vegetation, biomes, terrestrial, freshwater ecosystem; coastal forest and dune areas, the remaining natural vegetation of the coastal flats and the vegetation of the incisive river valleys occurring within its jurisdiction.

It is very important for the Mandeni Municipality to protect these natural assets for the benefit of the future generations as required by National Environmental Management Act, (Act 107) of 1998 and other international initiatives such as Agenda 21, Millennium Developmental Goals (Goal 7), Rio Declaration on Environment and Development, Statement on Forest Principles, United Nations Framework Convention on Climate Change, and United Nations Convention on Biological Diversity.

20.1.11 Climate Change Adaption and Mitigation

While climate change is a global phenomenon, the impacts for each area are locally unique.

The objective of this policy is to adapt to and mitigate the impact of climate change on the vulnerability of people in Mandeni.

This policy relates to the sustainability issues that have emerged from the SDF process, as it relates to and impacts on climate change. Mandeni is an area that is highly sensitive and vulnerable to climate change, due to the high degree of natural variability in climate. The high levels and densities of poverty in Mandeni combined with the existing levels of degradation and the flood hazard constitute a high level of sensitivity and vulnerability for the resource-poor people in the area.

In an attempt to mitigate the effect of climate change and the vulnerability of the people of Mandeni, the following actions are required:

- Delineate and map areas with high flood risk;
- Develop a risk reduction strategy that is aimed at relocating settlements that reside in high flood risk areas;
- Relocating settlements that reside in floodplain areas;
- Empowering traditional leaders in respect of the consequences of allocating land for settlements in flood risk areas;
- Prohibit development of land on steep slopes;
- Prohibit development where the land is in the opinion of the Municipality otherwise affected by virtue of soil instability, liability to flooding, inaccessibility or topography;
- Coastal erosion must be avoided and managed;

- Promote the development of alternative energy, including renewable energy technologies
- Identify sustainable alternative energy projects in the district.
- Increase environmental awareness through public campaigns and educating locals of unique environmental systems.
- Enforcement of proactive localized measures towards climate change adaptability and mitigation.
- Promoting Public transport systems as opposed to use of private vehicles in the aim to reduce carbon emission
- Municipalities may incorporate climate change policies into their official plans to identify specific actions to be taken to achieve climate change objectives. These policies can complement other municipal programs and initiatives that address climate change and reduce greenhouse gases (e.g., programs for tree planting, green building and energy efficiency incentives, water conservation and carpooling).
- Municipalities may prohibit the use of land or erecting buildings and structures within areas that are significant features, hazard lands and areas prone to flooding (e.g., floodplains or valley lands). Prohibiting development in natural areas and hazard lands promotes ecological services that address climate change mitigation and adaptation (e.g., carbon sequestration and storm water retention and infiltration, while reducing economic, health and safety costs and risks).

The Mandeni Integrated Development Plan (IDP 2012/2017) Identifies four main opportunity areas for the mitigation and adaptation programme within the District, that is, to facilitate a transition to renewable energy resources, the promotion of energy efficiency programme, consolidation of urban development and

the establishment of adequate Disaster Risk Management (DRM) systems.

According to the Mandeni IDP (review 20144/2015), the Mandeni Municipality is in the process of developing its adaptation and mitigation strategies, however, certain projects dealing with issues of climate change have been initiated within the Municipality such as:

- In areas prone to lightning, lighting conductors are being installed to protect the homes and residents living in the area;
- The Department of Agriculture, Environmental Affairs has planted a number of trees in Mandeni as part Departmental Greening Program, project such as Hlomendlini Greening project, which entails plantation of 1 fruit tree and 1 shade tree is of such project;
- Currently the low cost housing subsidy policy has made it a requirement for houses to be fitted with solar panel heaters to reduce the electricity costs of a household and
- The Department of Human Settlements has embarked on installing JoJo tanks in all rural housing projects for the harvesting of rain water.

2.3.35. Urban Edge Delineation for Mandeni, Sundumbili and Tugela

The urban edge delineation forms part of the spatial development framework in order to manage and control adhoc expansion of urban areas. On the contrary, there is the need to accommodate land development in a rational manner, particularly with adequate regard to nature and its useful resources. The rationale behind the urban edge determination includes the:

Protection of Natural and Human Elements

- reducing pressure on sensitive environments;
- protecting important elements within urban settlements; and
- Avoiding hazards.

Achieving a Dynamic Balance between the Landscapes of Society

- Urban/Rural/Wilderness Landscapes;
- promoting Small Scale Agriculture,

Achieving Greater Urban Efficiencies

- eradicating sprawl and promoting urban compaction;
- managing urban waste;
- co-ordination of line and point bulk services to increase efficiency.

The factors influencing the respective boundaries are:-

- to promote greater efficiencies;
- the edges are to be as close to existing build up areas as possible; and
- a minimum walking distance of no more than 1.5km from urban activities.

The idea of settlement edges in the Mandeni SDF represents a spatial intervention to encourage greater efficiencies in land use and protect essential landscape characteristics. Through this, better provision and maintenance of basic services can also be carried out more effectively. This requires detailed planning at a settlement level and could best be sustained through the coding or integration of the existing community rules into a land use management system. Certainly, the level of compaction will take into account the nature and character of each settlement, as well as the prevailing spatial development trends and patterns.

2.3.36. SPATIAL INTERVENTION AREAS

As a broad implementation and structure to the SDF, four spatial intervention zones were identified in key localities for responses outlining appropriate interventions according to the following zones:

• **Intervention Zone One :Accelerate Growth**

This zone is viewed as the Main Economic Growth Area for prioritised development spending and includes the settlements of **Mandeni / Sundumbili** as well as **isiThebe**

• **Intervention Zone Two: Share Growth**

This zone includes Social Inclusion Areas representing areas for investment in people rather than in places. Settlements within this zone include, **Nyoni, Newtown** and peripheral areas of **Sundumbili**.

• **Intervention Zone Three: Stimulate Growth**

This zone intend to stimulate and kick start New Potential Growth Nodes. Included in this zone are Tugela Mouth and Inembe.

• **Intervention Zone Four: Environmentally Sensitive Zones**

This zone includes registered conservation areas as well as identified sensitive areas. Thsi zone includes the Amatikulu Nature Reserve as well as the coastal zone and ecologically sensitive areas identified within the Siyaya Coastal Development Framework.

20.1.12 Intervention Zone One (Accelerate Growth)

The SDF identifies Mandeni/ Sundumbili as the primary node; the area has a largely urban setting and incorporates economic and administrative activities. Sundumbili town is considered as the heart of the municipality as it links the Municipality through the activity

corridor along routes P415 and P459 with the Regional Development corridor of routes N2 and R102. The R102 is the regional development corridor that links the Municipality with the external nodes beyond the Municipality jurisdiction such as Stanger to the south and Gingindlovu to the north.

The primary investment zone is to a certain extent serviced with infrastructure and consists of high order facilities as it accommodates Municipal Offices, Sappi, and shopping centre. The types of land uses which are encouraged in this area include Shopping Complexes, Administration / Offices, residential development. The Mandeni/Sundumbili area can be regarded as the primary urban centre within Mandeni Municipality. However, due to past multiple administrative system, the area lacks urban form, structure and character. The prevailing spatial form presents a classic example of segregation of communities based on past planning practices. Currently the primary node is disintegrated and traversed by physical barriers such as the railway line which create two separate entities servicing distinct communities. Sundumbili Plaza is primary economic activity node which services the entire Municipal area including rural communities (former KwaZulu) immediately adjoining is the Mandeni area. The CBD lacks the urban form and is characterized by fragmented and block development.

The Municipality has thus commissioned a planning assignment "Urban and Regeneration Strategy aimed at responding to the current spatial realities. The primary objective of the study is to provide a smoother transition between the broad Integrated Development Plans, Spatial Development Framework and the Scheme. The desired output from this exercise is the implementation plan/ capital investment framework which clearly outline and quantify the required Municipal intervention to address the situation.

It can be recorded that the Municipality has applied and secured funding from the Neighbourhood Grant Funding to the amount of R136 million. This is multiyear funding to be incremental allocated for technical assistance and capital projects resulting from the Urban Regeneration Strategy.

a) Service Delivery and Development Interventions:

- These areas indicate areas that will be prioritized in terms of development spending and investment.
- Providing economies of scale for effective and affordable service delivery
- Promoting infill development where high levels of services are available
- Growth will be managed in a manner to ensure sustainable public development without hampering development processes.
- Improve transportation linkages with neighbouring municipalities and Districts
- Bulk infrastructure planning and investment in key components of, and linkages to, the regional corridors
- Upgrading of the public transport system (incl. requirements of taxi recapitalization programme)
- Implement the Urban Regeneration Programme in Mandeni/ Sundumbili Node.

b) Social Interventions:

- Densification of the settlement in order to encourage compact urban development.

- Economic and social activity overlaps to create sufficient thresholds for social services and improve the quality of life in these areas.

c) Economic Interventions:

- Government infrastructure investment – beyond basic service delivery – will be in areas of high development potential or economic growth
- Focussed investments into key flagship projects within this area.
- Areas with high levels of poverty and high development potential should receive investment beyond basic services to exploit this potential.
- Focusing future settlement and economic development opportunities into activity corridors and nodes adjacent to or linked to main growth centres.
- Strengthen growth and development potential by way of the promotion of development corridors that link District key strategic economic hubs (e.g. ports of Richards bay and Durban).
- Stimulating industrial clustering and expansion in support of the regional development corridor.

d) Environmental Interventions:

- Combating urban sprawl into the surrounding environmentally sensitive areas associated with the Tugela River and its tributaries.
- Combating surface, air and water pollution resulting from the commercial and industrial activities found within the zone.

20.1.13 Intervention Zone Two (Sharing Growth)

The primary intervention zone including the periphery of Sundumbili, Nyoni in the north and Newtown in the south and these areas are strategically located along the activity corridor and in high accessibility to the Primary Node. Zone Two is rural focused and promotes the concept of social inclusion and the “**investment in people rather than place**” by promoting and strengthening overlaps in economic activity and poverty to address high levels of spatial fragmentation and exclusion.

a) Service Delivery and Development Interventions:

- Provision of sufficient road access and public transport options between this area and Intervention Zone One as well as surrounding regions.
- Provision of social support facilities to enhance the quality of living in these areas.
- Housing provision and possible formalisation in certain area with associated reticulated services.

b) Social Interventions:

- Develop and implement care and support programme for older persons
- Develop and facilitate the implementation of prevention of substance abuse programmes
- Facilitate the social integration of people with disabilities to the mainstream of society.
- Strengthen specialized protection, care, support and developmental programmes for people with disabilities.
- Facilitate care and support services to victims of violence and abuse.

- Improve service facilities for children in need of care and protection.

c) Economic Interventions:

- Efforts to address inequalities should focus on people and not places.
- Areas with high levels of poverty and low development potential should receive investment to provide basic services as well as social transfers, human resource development, and labour market information.
 - Development economic sectors and spatial localities in accordance with people needs and potential;
 - Deliver on the constitutional obligation to provide basic services to all citizens
 - Promote job creation and skills training;
 - Address past and current social inequalities by focusing on people and not places
 - Support full participation and equal opportunities to all people,
 - Offer the poor skills development and employment opportunities to exercise choices in improving their quality of life in a dignified manner,
 - Use the natural resource base of the municipality in a sustainable manner.

d) Environmental Interventions:

- Management of household and subsistence farming activities on the localised environment.

20.1.14 Intervention Zone Three (Stimulating Growth)

Zone Three will identifies and focuses on the emergence of potential new nodes where spatial **overlaps between areas of economic activity and areas of poverty occur**. This implies focused investment in poverty concentrations that show potential for economic development in their spatial and socio-economic context in terms of the following:

- Previously disadvantaged areas near fast growing urban areas
- Agriculturally orientated villages in areas of high agricultural potential
- Communities settled in potential commercial farming areas
- Communities situated in close proximity to Industrial nodes, and Activity Corridors and Eco Tourism areas.

a) Service Delivery and Development Interventions:

- Focussing priority on rural water supply and sanitation projects.
- Maintaining access roads to these areas to at least the current standard (mainly gravel road surfaces).

b) Social Interventions:

- Integration in terms of functions, mixed uses classes of society, residential, commercial, social, and agricultural and tourism.
- Concentrate on Economic and social activity overlaps.

c) Economic Interventions:

- Areas with high levels of poverty and high development potential should receive investment beyond basic services to exploit this potential.
- Focusing future settlement and economic development opportunities into activity corridors and nodes adjacent to or linked to main growth centres.
- Develop economic sectors and spatial localities in accordance with people's need and potential;
- Principle: Support full participation and equal opportunities to all people,
- Principle: Use the natural resource base of the municipality in a sustainable manner.
- Job opportunities closer to where people are living thus reducing transportation needs

d) Environmental Interventions:

- Lower density developments to retain rural character and protect the environment.

20.1.15 Intervention Zone Four: Environmentally Sensitive Areas

Development Zone Four will largely concentrate on future sustainable development approaches in terms of sustainable development spending. This will be achieved by focusing on rectifying development imbalances relating to equitable access to basic services, the protection of the natural and cultural resources and spatial form that promotes greater efficiencies in land-use and service provision. Important however it to acknowledge that although sensitive and responsible development relating to eco-tourism and lifestyle estate development might be considered

within these areas, they are mainly characterised as conservation areas with envisaged minimal development and low densities preceded and guided by comprehensive environmental assessments.

a) Service Delivery and Development Interventions:

- Water and sanitation services within this zone will require mainly on-site solutions and only where the underlying pedology and geological conditions allow for it.
- Public and Private development within these area will be kept to a minimum and only in accordance with guidelines which might be provided by relevant conservation authorities.

b) Social Interventions:

- Subsistence use of the resources of the areas will be managed through education, licensing and monitoring measures.
- The social condition of communities within and adjacent to these zones will be closely monitored to ensure that the natural resources are not depleted due to poverty and depredation.

c) Economic Interventions:

- These zones will mainly be linked to eco-tourism development and packaged as part of a regional tourism product.
- Direct economic benefit should be derived from proximity rather than direct exploitation of resources, including land, within this zone.

d) Environmental Interventions:

- Elevate the coastal zone through appropriate protective measures to contribute to the economy.
- Prevent and manage the spread of invasive species through clearing efforts focused at wetland etc.
- Minimise further loss of natural habitat to protect ecosystem functioning by means of sector specific land use management guidelines.
- Identify priority (critical) biodiversity areas in the Mandeni Municipality.
- Identify and prioritise areas for the creation of protected area networks that are representative of the district and that are ecologically sustainable.
- Spatial analysis of land use pressures in relation to biodiversity; and
- Identification of possible conflict zones (development vs. conservation and bio-diversity protection)

20.1.16 Tourism Intervention Area

An area north of the Tugela River from the coast to the N2 has been identified as a potential tourism intervention area, and is currently experiencing related interest from private developers.

Due to the sensitive nature of the areas along the coast and the natural resources which are presented by Amatikulu River towards the North and Tugela River to the South, it is vital that careful environmental consideration is undertaken. The types of land uses which are encouraged in these areas should be compatible with the rural character and shall not destruct the natural beauty of the area nor present a situation where the local communities will not

have access to the natural resources. Types of Land uses that are encouraged in these areas shall be tourism orientated mixed uses; holiday resorts, residential development, cultural villages, hotels, chalets, restaurants, conferences centres. It should be noted that proposing developments that area in line with the SDF does not give one automatic approval and of specific importance is that these types of developments will be of a low density.

The Municipality has prepared a comprehensive study (Siyaya Coastal Development) which is meant to bridge a gap between the broader SDF and the LUMS. The primary objective of the study is to put in place development controls and measures that will ensure that the pristine coast and rich natural resource are preserved. The project outcome is a development plan which determines the critical land uses and development patterns in the project area, in order to inform Municipal decision making regarding the future development of this area, which is environmentally very sensitive, but which also includes the most important tourism related development opportunities within in the area of jurisdiction of Mandeni Municipality.

It is anticipated that the outcomes will be sufficient to be translated into a Strategic Environmental Assessment, which can then be used as the starting point for the authorisation for any of the development opportunities identified in this plan. The principles agreed to by the community and relevant stakeholders for the development of the project area during the process of formulating this plan should be carried forward into any other development authorisation process.

The provisions of the Siyaya Coastal Development Framework plan strongly advocate the need for sustainable development in terms of Environment, Social and Economic point of view. The Siyaya Coastal Framework Plan insists on protection of natural resource (Ecosystem

Services) including agricultural resources (High Potential Agricultural Land) and promotion of local economy. Mandeni Municipality is very rich in terms of natural resources and consider the rustic and natural character of the coastline as selling point and unique feature; therefore it must be preserved and enhanced.

The project area is defined by Indian Ocean, the northern boundary of the Municipality, the N2, a line parallel to the MR 415 to include the Mangete historical settlement area and Ndondakusuka Hill, the R102(old N2), and the southern boundary of Municipality. The intention is to include land between N2 and the coast, and the Thukela Valley historical sites, including the Mangete historical settlement area and Ndondakusuka Hill. The project boundary was extended to the southern boundary of the Municipality for completeness, although the bulk of the area south of the Thukela River is a commercial agricultural area with few special environmental features or tourism development opportunities. Potential linkages to the historical sites associated with the Battle of Ndondakusuka, especially those at Ndulinde, are to be included in the analysis, although some of these sites fall outside the project area.

2.3.37. INTENDED FUTURE LAND USES

20.1.17 Conservation Areas

Identification of Land use

The Mandeni Spatial Development Framework considers both formally registered conservation areas as well as additional potential conservation worthy areas. In some areas around the Amatikhulu Nature Reserve and expansion of the current

conservation area is also proposed. In general the following areas were identified as future conservation areas.

- All formally **registered Nature Reserves** (ie. Amatikhulu Nature Reserve),
- All **river and stream areas**, including both the major rivers (Tugela and Amatikhulu) as well as smaller streams traversing the municipality,
- **Riverine buffer areas**. These are currently indicated conceptually, but will need to be finalised in future,
- Current **commercial and subsistence farming** activities are also illustrated as a) areas to be conserved for such practices and b) areas where care should be taken through sustainable agricultural practices.

Management Strategies and Public Interventions

- a) Protection of Critical Biodiversity Areas and Ecological Support Areas.

Critical Biodiversity Areas (CBA's)

The purpose of CBA's is simply to indicate spatially the location of critical or important areas for biodiversity in the landscape. The CBA through the underlying land management objectives that define the CBA prescribes the desired ecological state in which we would like to keep this biodiversity. Forty-four terrestrial habitat types and three aquatic habitat types were identified through field surveys and with the aid of the unpublished VEGMAP (National Botanical Institute) data. These areas were mapped at a 1:50 000 scale within the District. The corridors network link core conservation areas through a District wide network that covers the complete range of altitudinal and latitudinal zones. These corridors incorporate the most terrestrial and freshwater priority areas

Ecological Support Areas (ESA's)

Highest conservation importance is allocated to individual wetlands or clusters of wetlands. Ecological buffers (500m) are included as an ecological support area. Possible threats have been identified for the Amatikulu Nature Reserve area. The following public interventions are proposed for the identified Conservation areas:

- Further **detailed investigations** into the identification, mapping and classification and conditions of these environmental areas as backdrop to the increasing large scale development pressures experienced.
- Preparation of a combined **Coastal Management Plan and Local Area Plan** for the entire coastal area of the municipality from the coastline to the N2 to ensure that incremental developments do not severely degrade the environmental integrity of this vital ecosystem.
- **Community based development and education programme** in areas where potential conflict between subsistence farming activities and ecologically sensitive area may occur.

20.1.18 Agricultural Areas

Identification of Land use

The SDF distinguishes between future commercial agricultural areas and subsistence areas. The main rationale for this distinction is due to the different road, water, and electricity requirements between the two forms of agriculture. It is envisaged that a certain areas of communal farming becomes more market orientated, future SDF Review will respond to this. The potential infill areas between current commercial and subsistence farming has also been included as

part of the future agricultural areas in order to create a larger and more consolidated agricultural base for the area.

Management Strategies and Public Interventions

Specific strategies and programmes to be launched in the agricultural sector include the following;

a) Integration of land reform activities with sustainable agricultural development initiatives,

b) Targeted institutional support for small scale farmers

Large parts of the municipality are rural dominated and characterized by a significant number of small scale and emerging farmers being active in these areas. Spatially, a number of important interventions to support this sector (Rural farmer support services) should include the following:

- Basic Infrastructure provision (Engineering, shelter and socio-economic infra-structure)
- Increased accessibility of agricultural inputs
- Access to markets
- Setting up and strengthening cooperatives:

c) Development, support and management of off-farm and on-farm infrastructure

- Storage units, including cold storage and regular ambient storage
- Communications facilities (telephones, facsimile, internet access, etc.)
- Abattoirs
- Multi-purpose livestock handling facilities

- d) Optimize production opportunities in areas with irrigation potential

Within the context of limited water availability in certain areas of iLembe, the optimum utilization of existing areas of irrigation potential is of vital importance. The potential of irrigation schemes should be investigated and necessary measures put in place to optimize the use of available resources.

- e) Diversification of product range with increased focus on high-value specialized products and the identification and penetration of niche markets

The Mandeni agricultural sector is currently highly dependent on sugar, forestry and high value crops products. Subsistence, emerging and commercial farmers should be provided with required assistance to improve their ability to make the transition to economically viable and environmentally sustainable, diversified production systems.

- f) Sustainable resource management

In view of the importance and the extent of the agricultural sector in the economy of the Mandeni municipality, it is imperative that agricultural and farming practices are environmentally sustainable. A number of important factors need to be considered in this regard:

- Soil erosion and desertification,
- Soil salination
- Integrated Livestock-Wildlife Management
- Ensure sustainable farming units and protection of high potential agricultural land
- Farming practices that consider the limited water resources and climate change effects.

20.1.19 Urban Infill

Identification of Land use

The area between the Primary Node (Urban Regeneration Area) and Isithebe, including land towards the east of this has been identified as an Urban Infill Area. Currently most of the land included in this areas to the east is vacant or currently being used for Agricultural Purposes.

This area has also been identified as key land development area within the recently prepared Land Reform Area Based Plan for the iLembe District, undertaken by the Department of Land Affairs. It is envisaged that this area will serve as a core complex within Mandeni with mixed use development.

Management Strategies and Public Interventions

It is the intention of the municipality to stimulate urban standard, mixed use infill development from both public and private sector within this area through pro-active planning, infrastructure provision and support.

Specific public interventions will include:

- a) Preparation of a combined Strategic Environmental Assessment and Local Area Plan for the urban infill area.
- b) Preparation of an Infrastructure Masterplan for the area based on the findings and recommendations of the LAP.
- c) Systematic provision of bulk infrastructure and reticulation services in line with the phased development of the area.

20.1.20 Residential

Identification of Land use

Apart from the Sundumbili formal township area, the majority of the residential areas surrounding the Primary Node, Urban Infill Area and the Industrial Node are characterised by dwellings on communal land and informal residential options. As current trends continue, it is envisaged that a constant influx of residents around this complex will necessitate the development of proper neighbourhoods with residential options, social support services (ie. Schools, Health Services) and transport to employment opportunities within the core complex will need to be planned and provided.

Management Strategies and Public Interventions

Public interventions envisaged in this area relate to:

- Provision of sufficient road access and public transport options between this area and the Urban Complex as well as surrounding regions.
- Provision of social support facilities to enhance the quality of living in these areas.
- Housing provision and possible formalisation in certain area with associated reticulated services.

2.3.38. ALIGNMENT WITH SURROUNDING SDF's

20.1.21 Ilembe District Municipality

The Ilembe SDF affects the Mandeni Municipality and the compilation of the Ilembe SDF was informed by the first Municipal

wide SDF compiled for Mandeni in 2005. The detailed SDF being compiled will reinforce the district wide SDF as far as locally relevant physically possible. However, as the actual implementing agent of spatial restructuring, the local SDF will again inform the district SDF in the case of any differences.

20.1.22 Alignment with surrounding Local Municipalities

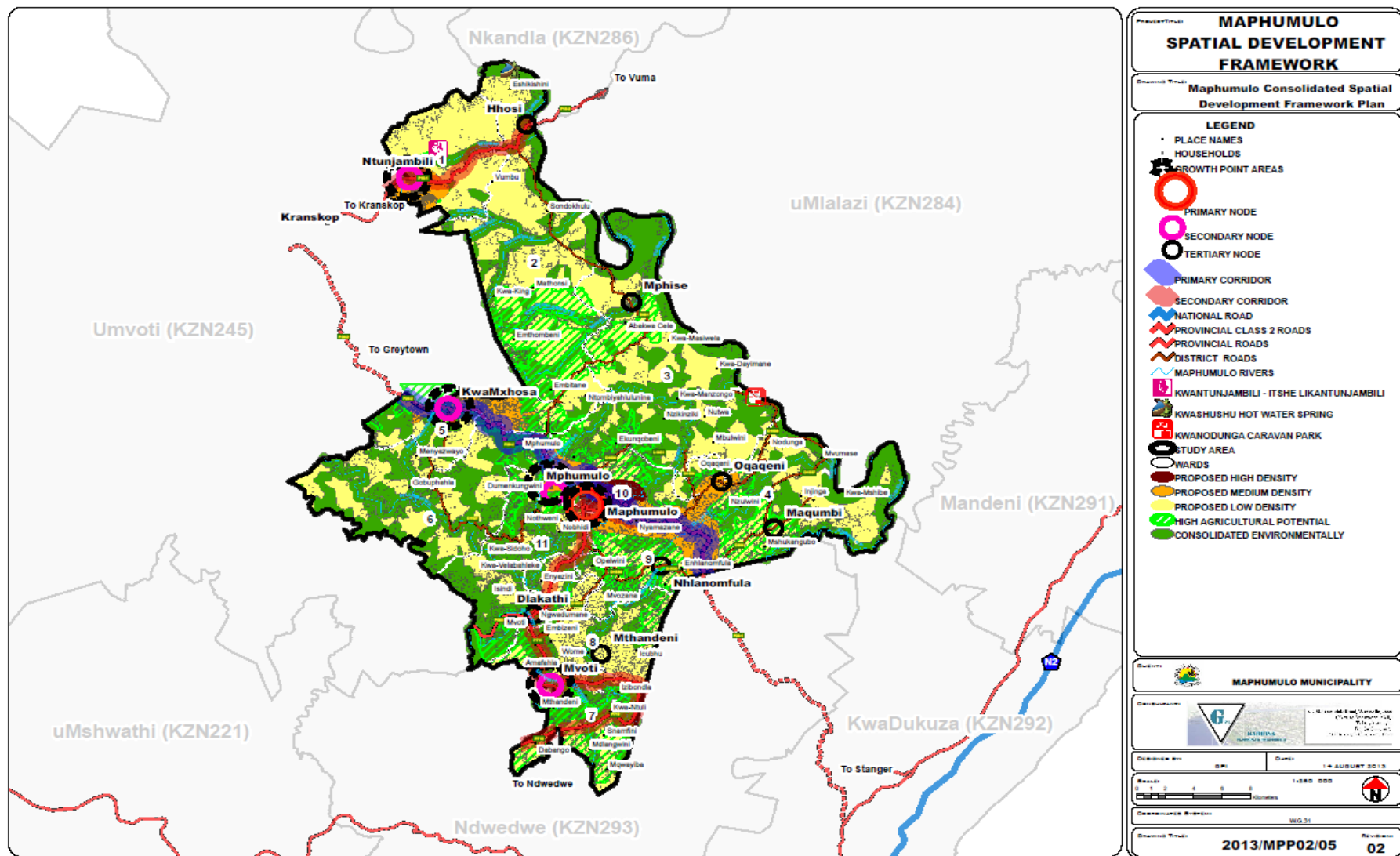
The Mandeni Municipality is adjoined by three other local municipalities, namely:

- Maphumulo Municipality
- KwaDukuza Municipality
- Umlalazi Municipality

Table 33: Maphumulo LM Alignment Aspects

Area of Alignment	Observations
Development Corridors	Maphumulo municipality is located to the west of the Mandeni Municipality and indicates that the R74 route as primary corridor. The Mandeni SDF has indicated the same.
Cross Boundary Dependencies	The northern areas of Maphumulo adjacent the Tugela conservation area are identified as prime agriculture in the Maphumulo SDF map.
Cross Boundary Co-operation	None apparent
Potential Contradictions	None apparent

Map 36: Maphumulo Local Municipality SDF Map



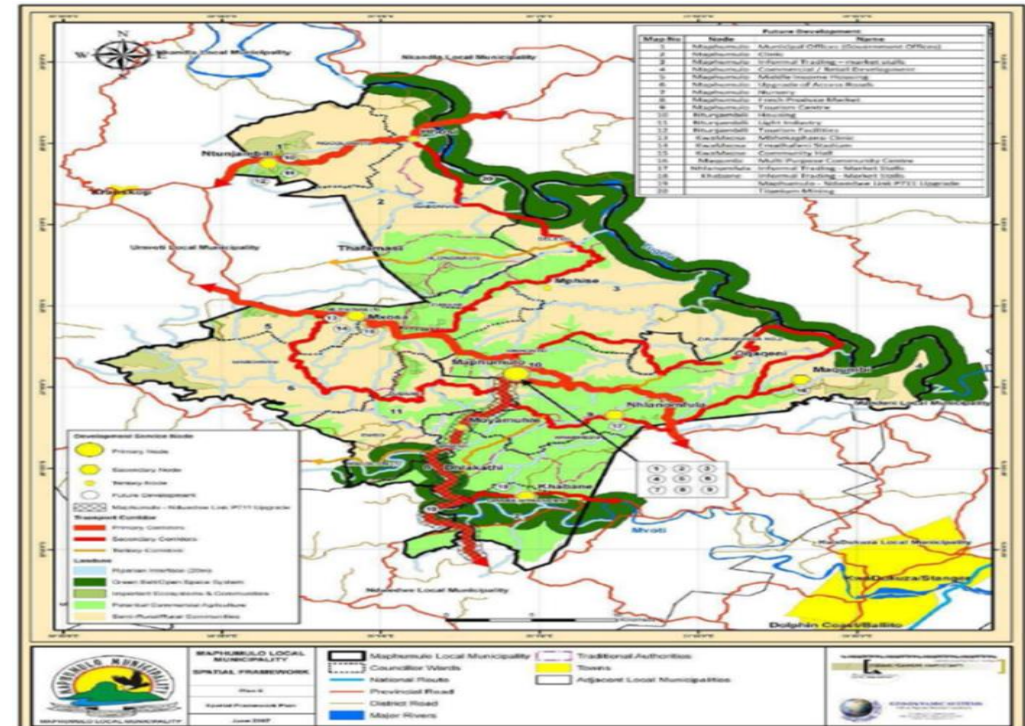
Source: Maphumulo SDF 2007

Table 34: KwaDukuza LM Alignment Aspects

Area of Alignment	Observations
Development Corridors	The KwaDukuza municipality is located to the south of the Mandeni Municipality and indicates that the N2 and R102 as primary and secondary corridors.
Cross Boundary Dependencies	The KwaDukuza SDF map has earmarked the areas adjoining the Mandeni Municipality as agricultural and use and indicates that there should be buffer areas maintained around the rivers traversing between the two municipalities. The Mandeni SDF indicates the same and has also excluded the high agricultural potential land out of its urban edge.
Cross Boundary Co-operation	A regional corridor stretching from KwaDukuza LM through Mandeni to Umlalazi has been identified. Management and utilization of this corridor needs to be co-ordinated between all three municipalities.
Potential Contradictions	The continuation of coastal management along the coast of these two municipalities may not be replicated from one to the newt.

Source: Black Balance Projects

Map 37: KwaDukuza Cross Border Alignment



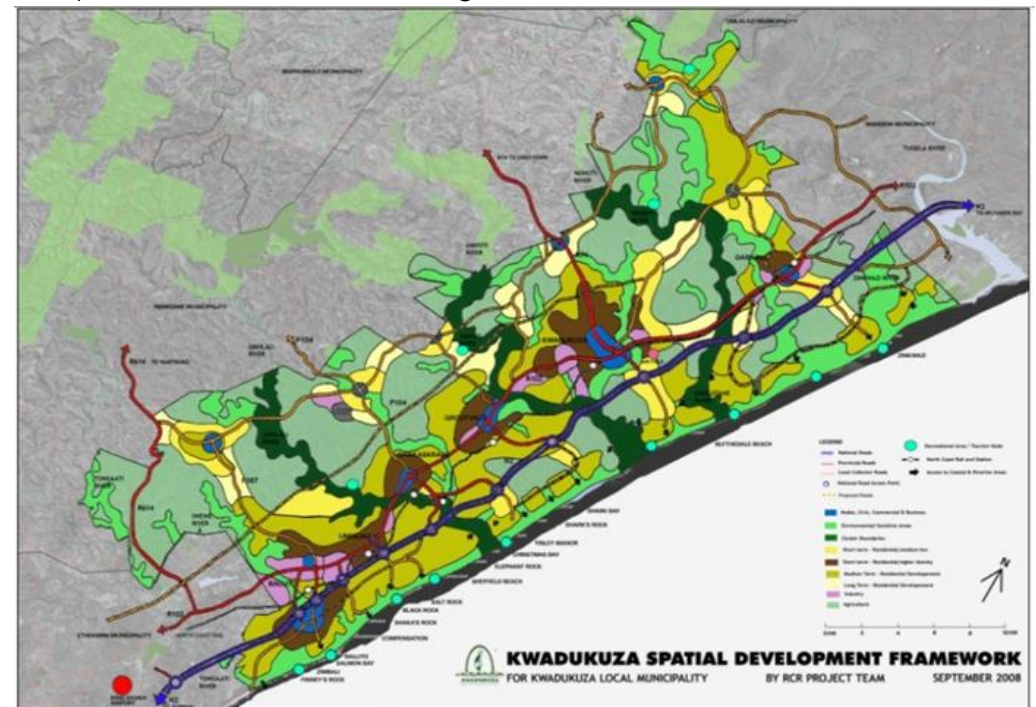
Source: KwaDukuza SDF 2007

Table 35: Umlalazi LM Alignment Aspects

Area of Alignment	Observations
Development Corridors	Mandeni municipality links to the Umlalazi municipality through the N2, P47-6 and P266. The proposed R102 road will improve access between these two municipalities.
Cross Boundary Dependencies	The Umlalazi SDF identifies area adjacent Mandeni municipality as Priority Zone 2 and 3; therefore these two municipalities are in alignment. There is need for environmental protection of the Amatikulu river which flows through Umlalazi Municipality into the North eastern parts Mandeni.
Cross Boundary Co-operation	Mandeni functions as a service centre for the whole of Mandeni Local Municipality and beyond the eNdulinde Hills (the south eastern part of Umlalazi Municipality). There is need for cooperation in service delivery and land use management in the north eastern areas of Mandeni and the southern tips of Umlalazi municipality.
Potential Contradictions	The Amatikulu river which flows south of the Umlalazi municipality is not reflected in the Umlalazi SDF which may affect the conservation efforts of this water body.

Source: Black Balance Projects

Map 38: Umlalazi Cross Border Alignment



Source: Umlalazi SDF 2007

2.3.39. Consolidated Mandeni Spatial Development Framework

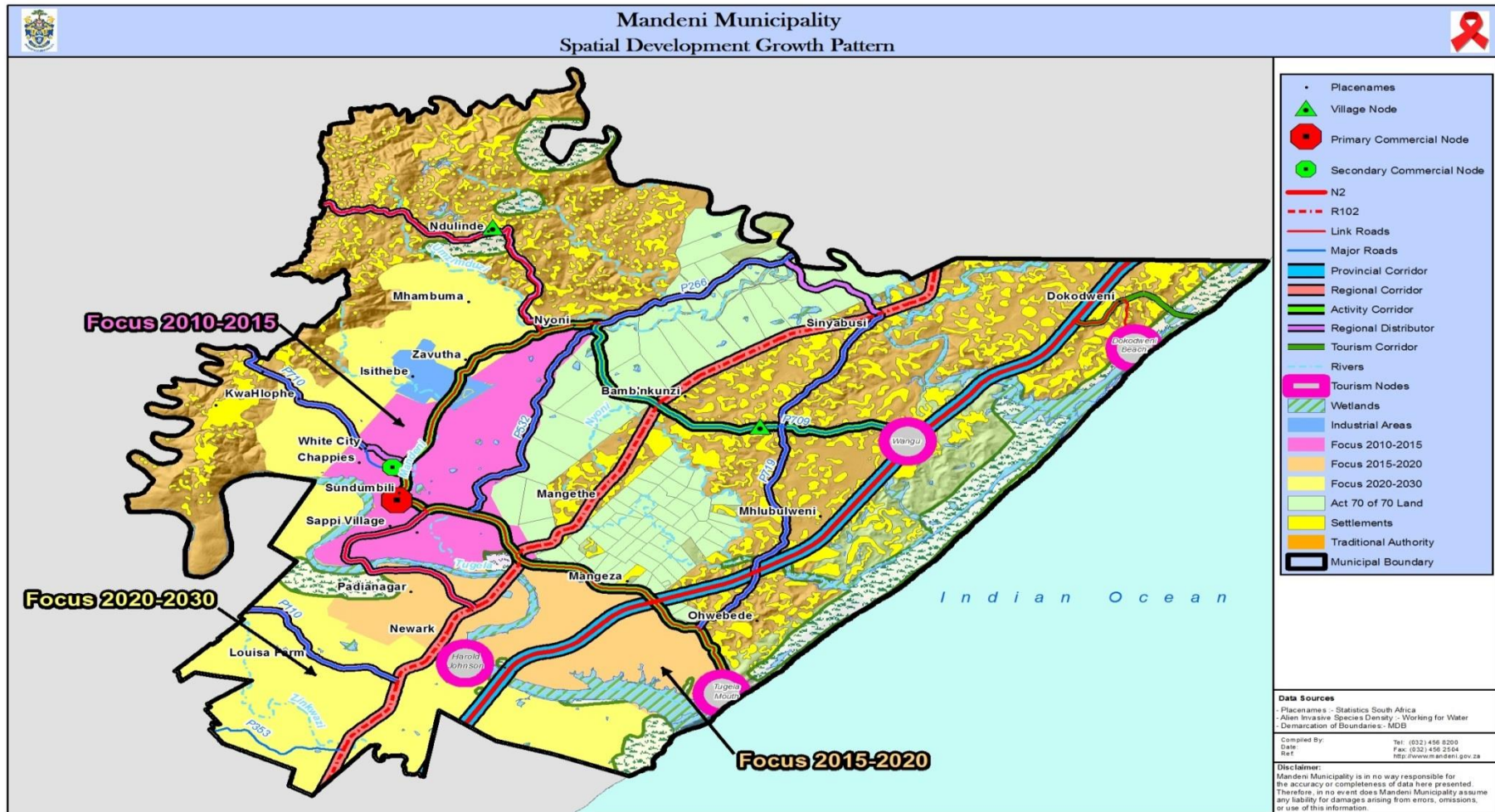
The Mandeni Spatial Development Framework as present on Map 16 below is a culmination of strategic responses to the spatial issues and policies governing spatial planning and development in the Mandeni Municipality. The various proposals are intended to fulfil the development vision of the SDF, which is:

"By 2030 Mandeni will have an **efficient spatial structure** and planning system with **equitable and reliable services**, integrated and **socially beneficial land development** which are balanced with the **conservation of its vital natural resources** (including coastal resources and agricultural land) as the basis for **sustainable economic growth**".

This entails creating an efficient, equitable and sustainable spatial system that attends to the needs of the Municipality, by detailing the Municipality's human settlement needs, environment services and concerns as well as the social and economic thrusts and tendencies in a sustainable manner. The formulation of the Spatial Development Framework included the consideration of policies and legislation at a regional and at a national level, as well as cross border issues that were identified.

The subsequent sections of the Spatial Development Framework Report are intended to guide the implementation of the Mandeni Spatial Development Framework towards its spatial vision.

Map 39: Consolidated SDF Map



Source: Mandeni Municipality: GIS

21 IMPLEMENTING THE SDF

The implementation of the SDF is very important in ensuring that the Municipality achieves its Vision as stipulated in the IDP. Through the IDP, the SDF will influence budgeting and resource allocation and specific interventions will be measured through the performance management system. Practical implementation of the SDF will be achieved through the further detailed planning of special development areas and the Mandeni Land Use Management System, currently being formulated.

2.3.40. SERVICE LEVEL GUIDELINES

The Mandeni SDF focuses on 6 key areas of spatial implementation, namely:

1. **Natural Environment,**
2. **Service Infrastructure and Transport,**
3. **Housing and Land,**
4. **Economic Development**
5. **Social Development.**
6. **Tourism Development**

The lines and dedicated areas on the first draft SDF should thus have an impact on each of these sectors. The specific impact of various areas indicated on these sectors is briefly indicated below:

Table 36: Service level guidelines

Intervention Zone 1 (Urban Core)	Intervention zone 2 (Urban Periphery)	Intervention Zone 3 (Rural Areas)
NATURAL ENVIRONMENT		

Intervention Zone 1 (Urban Core)	Intervention zone 2 (Urban Periphery)	Intervention Zone 3 (Rural Areas)
• Environmental health will enjoy priority focus in this area. • Urban pollution hotspots will be redressed and managed. • Urban Open Space Systems will be developed and managed. • Industry Environmental Management Plans enforced. State of the Environment Report with management plans promoted.	• Settlement pollution hotspots will be redressed and managed. • State of Rivers Reports with management plans promoted. • State of the Environment Report with management plans promoted.	• Sustainable agricultural and tourism practices promoted and controlled. • Impacts of residential villages will be monitored. • State of the Environment Report with management plans promoted.
SERVICE INFRASTRUCTURE		
• Priority spending on infrastructural upgrading needs in these areas. • Infill planning will be encouraged to maximize use of existing infrastructure. • All areas are entitled to the highest	• Basic minimum services standards to all households in this area. • Self-contained services will be promoted until reticulation linkage is possible. • Transport linkages into the Urban Core will be	• Basic minimum services standards to all households in this area. • Clustering of bulk support services at key service delivery points. • Regional distributors maintained to the

Intervention Zone 1 (Urban Core)	Intervention zone 2 (Urban Periphery)	Intervention Zone 3 (Rural Areas)
affordable service levels. Roads upgrading and maintenance as well as public transport system as a transport priority in these areas.	strengthened.	highest affordable levels.
HOUSING AND LAND		
• Formal township establishment will be promoted and pro-active public spending on formalisation in these areas will be a priority. • Priority housing development will be promoted in these areas.	• Private formalisation will be supported in these areas. • Long term public spending on township establishment. • Secondary public housing developments.	• Department of Land Affairs programmes promoted and implemented. • Survey of land tenure and housing needs. • Monitor housing conditions on farms.
ECONOMIC DEVELOPMENT		
• Priority Economic investment is promoted around CBD and key business complexes. • Economic activity will be grouped to enhance thresholds.	• Ensure accessibility of households to employment opportunities within Urban Core.	• Agricultural and Tourism activities promoted within these areas. • Regional distributions routes between markets and

Intervention Zone 1 (Urban Core)	Intervention zone 2 (Urban Periphery)	Intervention Zone 3 (Rural Areas)
• Employment and residential opportunities promoted in close proximity of each other.		supply will be upgraded and maintained.
SOCIAL DEVELOPMENT		
• Regional facilities located within these areas. • Equitable decentralisation of services within this area.	• Ensure accessibility of households to facilities and services within Urban Core.	• Develop accessible key rural services centres.
TOURISM DEVELOPMENT		
• Direct investment and infrastructure along tourism corridor. (ie: coast line)	• Promote areas with tourism potential. • use music festivals to promote local tourism (ie: Dokodweni Beach festival)	• Promote arts and craft at tourism node.

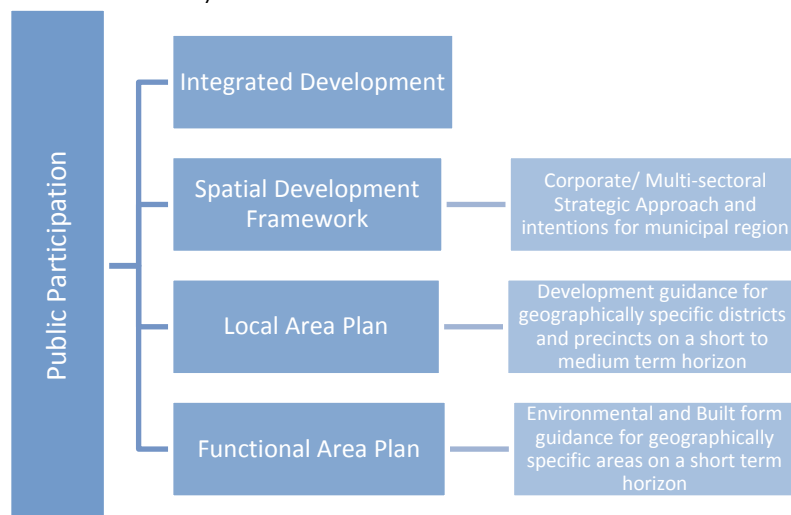
It is important that any spatial responses to the current challenges are practically implemented within these sectors. The list below represents practical strategies which will be employed by each sector to address the core spatial challenges.

2.3.41. SPATIAL POLICY GUIDELINES

21.1.1 RELATIONSHIP OF THE SPATIAL DEVELOPMENT FRAMEWORK TO LAND USE MANAGEMENT

The purpose of a Spatial Development Framework (SDF) is to inform the development of a Land use Management Scheme. The SDF provides best use scenarios for use of land, and it is the function of the Land Use Management Scheme to regulate these land uses. A SDF therefore does not change the rights of properties but gives guidance and direction for growth of a municipality. It is however necessary to align the Land Use Management System with the Spatial Development Framework to ensure that the objectives of the SDF are met.

Figure 18: Hierarchy of Plans in relation to Mandeni



Source: Adopted from eThekweni Municipality Package of Plans

A Land Use Management System forms part of a larger Integrated Development Planning Process which includes other components such as the following:

- Spatial Development Framework (Main Informant to the LUMS)
- Land Use (Planning) Schemes (Main product guided by LUMS)
- Rates database
- Cadastral and property (registration) database
- Valuation system
- Information regarding the provision of infrastructural services
- Property ownership and tenure
- Environmental management system
- Transportation management system
- Information system GIS

Where the SDF provides direction for expansion of specific land uses or the restriction of development within other areas, the purposes of the Land Use Management System is to manage the use of the land in order to ensure a healthy and safe living environment, whilst minimising the effects of negative externalities. It also acts as a statutory informant to the preferred location of social amenities (including social facilities, and services) to ensure a convenient living environment. Through evaluation of conservation resources, the SDF gives guidance to the prescriptions of the Land Use Management System. At a lowest spatial scale, the land use scheme becomes the regulatory instrument of land use and land development in the Municipality.

This section aims to create a policy guideline framework in order to **assist is municipal decision making during spatial development processes**. These guidelines will represent the overarching approach to all other, more detailed level spatial planning initiatives such as precinct plans and the Mandeni Land Use Management System.

As a tier of the South African Government, the Mandeni Municipality needs to incorporate and use national spatial guidelines and policies into its local policy first and within this framework formulate additional policy guidelines, which might be required to give effect to the Spatial Development Framework and Strategies. Although not as prescriptive as the Land Use Scheme, these policy guidelines will also provide some spatial standards to be used when engaging in spatial development initiatives. Again, these standards are based on national guidelines with a local translation where indicated.

- a) **National spatial policy guidelines** (e.g. SPLUMA & KZN PDA) which is hereby adopted by the Mandeni Municipality as overarching spatial development policy,
- b) **Localized spatial policy guidelines** aimed at achieving the strategies associated with the Mandeni Spatial Development Framework (organized within the national frameworks), and
- c) **Localized spatial development guidelines**, based on national standard guidelines and local context alike.

21.1.1.1 LAND USE MANAGEMENT SYSTEM

The Mandeni Municipality is in the final phase of adopting a Land Use Management System extending to areas that were previously not covered by the scheme. The Land Use Management System proposes a number of norms or normative principles which should

be viewed more as philosophical consideration during the spatial planning, control and management of land uses. It is important that these norms are addressed and/or illustrated during the evaluation of all land use management consideration.

21.1.1.1.1 The principle of sustainability

The principle of sustainability requires the sustainable management and use of the resources making up the natural and built environment.

Land use and development decisions must promote a harmonious relationship between the built and the natural environment while ensuring that land development is sustainable over in longer term period. The principle demands a holistic approach to land development in order to minimise the long-term negative impacts of current land use or development decisions. The long-term adequacy or availability of physical, social and economic resources to support or carry development should be thoroughly investigated. The life cycle costs of land development and its likely side effects on the environment, community, and the economy needs to be understood and taken into account to sustain its benefits, while minimising or mitigating any likely negative impacts.

In the past the planning and management of land use has been characterised by extreme inequality. Not only are principles and norms required to ensure equity in the way that decisions are taken in the future but also that they address the inequitable legacy inherited from decades of planning in the interests of a racial minority.

The spatial planning, land use management and land development norms based on this principle are:

- Land may only be used or developed in accordance with law;
- The primary interest in making decisions affecting land development and land use is that of national, provincial or local interest as recorded in approved policy;
- Land development and planning processes must integrate disaster prevention, management or mitigation measures;
- Land use planning and development should protect existing natural, environmental and cultural resources;
- Land which is currently in agricultural use shall only be reallocated to other uses where real need exists and prime agricultural land should remain in production.

21.1.1.1.2 The principle of equality

The principle of equality requires that everyone affected by spatial planning, land use management and land development actions or decisions must enjoy equal protection and benefits, and no unfair discrimination should be allowed.

In the past the planning and management of land use has been characterised by extreme inequality. Not only are principles required to ensure equity in the way that decisions are taken in the future but also that they address the inequitable legacy inherited from decades of planning in the interests of a racial minority.

The spatial planning, land use management and land development norms based on this principle are:

- Public involvement in land use planning and development processes must be inclusive of all persons and groups with an interest in the matter being decided;
- Land use regulators and planning authorities must ensure that benefits and opportunities flowing from land development are received by previously disadvantaged communities and areas;
- The appropriateness of land use must be determined on the basis of its impact on society as a whole rather than only the applicant or immediate neighbours.

21.1.1.1.3 The principle of efficiency

The principle of efficiency requires that the desired result of land use must be produced with the minimum expenditure of resources.

This principle aims to achieve efficiency in institutional arrangements and operations, adopted procedures, the settlement form or pattern, and the utilization of man-made or natural resources during land planning and development.

The spatial planning, land use management and land development norms based on this principle are:

- Land use planning and development should promote the development of compact human settlements, combating low intensity urban sprawl;
- The areas in which people live and work should be close to each other; and
- Plans of contiguous municipalities and regions should relate positively to each other.

21.1.1.1.4 The principle of integration

The principle of integration requires that the separate and diverse elements involved in development planning and land use should be combined and coordinated into a more complete or harmonious whole.

The principle of integration reflects the need to integrate systems, policies and approaches in land use planning and development. This principle finds particular expression in two areas. Firstly it requires that the planning process is integrated, taking into account the often disparate sectoral concerns, policies and laws and their requirements, and reaching conclusions that are efficient and sustainable from a management and governance point of view. Secondly it requires an integrated 'on the ground' outcome, one that breaks down not only the racial and socio-economic segregation that characterise our country but which also look at spatial integration of different land uses, places of living with places of working and shopping and relaxing.

The spatial planning, land use management and land development norms based on this principle are:

- Land use planning and development decisions should take account of and relate to the sectoral policies of other spheres and departments of government.
- Land use and development should promote efficient, functional and integrated settlements;
- Land use and development should be determined by the availability of appropriate services and infrastructure, including transportation infrastructure;

- Land use and development should promote racial integration;
- Land use and development should promote mixed use development.

21.1.1.1.5 The principle of fair and good governance

The principle of fair and good governance requires that spatial planning; land use management and land development must be democratic, legitimate and participatory.

Land use planning is a centrally important government function, directly affecting the lives of all people. It is therefore particularly important that it is characterised by fairness and transparency and that people are afforded a meaningful right to participate in decisions. When public authorities formulate new plans, they must put in place processes that actively involve citizens, interest groups, stakeholders and others. Also, where land development projects are initiated by the private and non-governmental sectors, there must be procedures that ensure that interested parties have an opportunity to express their views or to object.

In the interests of good governance it is essential that there be effective coordination between the different sectors and spheres involved in land use and development. The greater the coordination, cooperation and transparency of the planning process within government the greater will be the prospects of members of the public being able to engage with the decision making in a constructive manner.

The spatial planning, land use management and land development norms based on this principle are:

- Affected parties have a right to access information pertinent to land use and development plans that are being considered by land use regulators;
- Capacities of affected communities should be enhanced to enable them to comprehend and participate meaningfully in development and planning processes affecting them;
- Decisions must be made in the public domain, with written reasons available to any interested party on request and no planning decisions taken behind closed doors;
- The names and contact details of officials with whom the public should communicate in relation to spatial planning, land use management and land development matters must be publicised;
- Land use and development decisions must be taken within statutorily specified time frames; and Accessible participatory structures should be created to allow interested and affected parties to express their concerns or support for any land use or land development decision at sufficiently early stage in the decision-making process.

21.1.1.2 OPERATIONALISING THE LUMS PRINCIPLES

It is clear that it must be incumbent on authorities concerned with spatial planning and land-use management to apply the principles and norms effectively. Structures, institutions and processes must be designed to ensure that the principles and norms are actualized. The best way to do this, taking into account the specific South

African situation is to establish land use regulators within the municipal, provincial and national government to apply the principles in specific planning and land-use situations.

21.1.1.2.1 Capacity building

A key success factor in the implementation of the Mandeni Spatial Development Framework as well as the proposed spatial development guidelines will be the building of planning capacity in all three spheres. This will require dedicated capacity in both national and provincial government, as well as increased cooperation between government and the planning education institutions. It is foreseen that the duty to build capacity in the municipal sphere, will especially be the duty of provincial governments, in the light of section 154(1) of the Constitution, 1996. The proposals in the Planning Professions Bill enabling the development of a continuing professional development programme for the planning profession will be very helpful in this regard.

21.1.1.2.2 Monitoring and Review

A critical role of the Mandeni management structures will be the monitoring and review of the implementation of the principles and norms. The purpose and form of a monitoring system should change over time as the system matures or as the level of understanding and appreciation of the system develops.

21.1.1.2.3 New Spatial Management Mechanisms

Mandeni Municipality will have an indicative SDF **plan** showing desired patterns of land use, directions of growth, urban edges, special development areas and conservation-worthy areas as well as a Land Use **scheme** recording the land use and development rights and restrictions applicable to each erf in the municipality. The *plan should be flexible* and able to change to reflect changing priorities of the municipality, whereas the *scheme should be tighter* and only amended where required for a particular development and where certain other requirements are met, with the most important of these requirements being conformity with the plan. The plan should thus influence the contents of the scheme as and when required, rather than act as the direct source of rights and controls itself.

There must be a strong link between both the plan and the scheme and the municipality's *budget and capital expenditure framework*. On the one hand the budget will record the municipality's income and expenditure and on the other the capital expenditure framework will indicate planned spending on infrastructure and services. These two elements are important for land use planning for two reasons. Firstly, the rights recorded in the municipality's scheme determine the value of the land and that value in turn forms the basis of the rates that the municipality can charge, which form the major part of its income stream. Secondly, any new land development or land use change has to be adequately serviced by infrastructure and the capital expenditure framework will indicate where the municipality is able to spend funds on the upgrading or extension of that infrastructure.

Mandeni Municipality must have land use management system and that system must include at least a *scheme* recording the rights and

restrictions applicable to erven within the municipal area. Any land development that exceeds these rights and restrictions will require the consent of the relevant land use regulator. The rights and restrictions must relate at least to land use, floor-area ratio and building height. Every scheme shall consist of a map and a set of regulations. The scheme is a key part of a municipality's regulatory powers and must therefore be formalised as a bye-law of the municipality. The rights to a particular use and development of *land should not be granted in perpetuity*. There must be clear provisions to the effect that once use and development rights have been granted they must be exercised within a specified time frame. In addition rights already held by landowners but not yet exercised must lapse within a specified time period unless they are realized in the interim.

The *scheme* is an instrument that can be either a very complex and detailed document accommodating a wide range of different land uses and the relatively strong institutional capacity of a metropolitan municipality or a much simpler document suited to the needs and capacity of smaller local or district municipalities in primarily rural areas.

The way in which the spatial development framework and scheme relate to individual land development or land use change applications will depend on whether or not the proposed change is consistent with the spatial development framework and, where the spatial development framework is silent, on the applicable national principles and norms. Every application will obviously be for a development that is in some way inconsistent with the scheme, as otherwise there would be no point in making an application: the owner is entitled to exercise the rights already recorded in the

scheme. An applicant is only required to apply to a land use regulator where he or she wishes to develop the land or change its use in a way which is in conflict with the relevant scheme.

Where an application is made for additional land use and development rights the municipality or tribunal shall approve that application, subject to reasonable conditions, where the application is consistent with the express provisions of the spatial development framework. Where the municipality or tribunal however approves an application that is not consistent with the spatial development framework it may charge the applicant a surcharge over and above the municipality's standard bulk services connection fee, which can be up to 5% of the capital cost of the development.

Where a landowner holds a use and development right in terms of a scheme he or she must exercise that right within a five-year period after it is granted. After five years the right lapses and the landowner is not entitled to any compensation for the loss of that right. Where a person holds a right in terms of an existing scheme at the time that this legislation comes into effect and has not exercised the right within a five year period the right similarly lapses. Application may however be made to the appropriate land use regulator for permission to extend the period of lapsing by no more than three years, provided that the applicant can provide sound reasons, motivated in terms of the principles and norms to be confirmed in the new law.

Where land is used or developed contrary to the applicable scheme the land owner must within one year of the scheme coming into effect obtain the necessary permissions from the municipality. In

the event that he or she is not able to obtain that permission the use or development of the land will constitute an offence. The municipality will then be able, subject to giving the landowner a month's written notice, to demolish the illegal structure or to impose a fine of R50 per square metre per week of the illegal use or structure.

There is effectively a presumption in favour of planned development as opposed to a presumption against development. This has the twofold effect firstly of emphasising the importance of planning, and secondly of not necessitating elaborate control systems in areas in which there is little development pressure.

Every decision of a land use regulator must be derived from and based on the *general principles and norms for land development*. The normative basis for planning decisions provided by principles and norms ensures coherence and uniformity in the planning system across the country.

21.1.1.3 Policy guidelines for Land Use Control Procedures

A critical problem facing many applicants and approvals bodies is the overlap between the procedures for land use change or land development approval, in terms of planning legislation, and those required in terms of the environmental impact assessment (EIA) provisions of the Environment Conservation Act. As both the Department of Environment Affairs and Tourism and the DLA are simultaneously rationalising and reforming the legislative frameworks for environmental management and spatial planning, land use management and land development respectively there is an

extraordinary opportunity to ensure that these two procedures are aligned. This will have the following important effects:

- The public will better serve both as applicants and objectors. This will increase the quality and extent of public involvement in decision-making and will improve the quality of applications.
- Cooperative governance will be increased, leading to a more efficient use of scarce human resources in the public sector and reducing negative 'turf' squabbles.
- The quality of environmental and planning decisions will improve. It will be more difficult for an authority to justify their decision solely on 'environmental' or 'land use' grounds. Instead they will have to adopt a more integrated approach.

Simply collapsing the procedures for environmental impact assessments (EIAs) and land use change or land development into one would be difficult. Nevertheless it is possible that in situations where both EIA and land use change or land development permission are required the procedures to be followed by the applicant, and to be engaged with by the authorities and the public, are as closely aligned as possible. Locating the function within one sphere of government, and one institution, would enable that body to determine practical approaches to the problem that match its own capacity and resources, within the framework set by national government. A number of important steps have to be taken though to ensure that the Mandeni Municipality is in fact able to fulfil this responsibility effectively. These are:

- Mandeni Municipality must be authorized to decide on EIA applications. Currently only provincial governments have this power. This ought to be done as part of a programme of environmental capacity building within the municipality.
- Mandeni Municipality must incorporate a strategic environmental assessment into the spatial development frameworks, forming part of the IDPs. If environmental concerns are expressly incorporated into the IDP process, and are then reflected in the controls and mechanisms forming part of the land use management system that would immediately resolve many environmental and planning conflicts.
- Both the new environmental and new land use legislation must require that the municipality establishes one committee to deal with EIAs and land use decisions, thus preventing the situation at a local level where different sets of councillors are involved in decision making for the two types of process.

The outcome must be that in those situations where both a land use or development approval and an EIA are required the applicant should only have to follow one procedure, only one body should make the final decision and, where the application leads to an appeal, there should be a single appeals body. This arrangement should not negate the fundamental responsibilities of each of the two national departments, DEA&T and DLA, to ensure the wise use and management of the resources under their respective authority. It will however demand an approach from both Departments that is more 'hands off' in relation to the actual taking of the decision, but which concentrates more on their role of providing clear guidelines

and a rigorous monitoring and evaluation system. The intervention powers of both Departments would be retained, in the event of their concerns, as reflected in the principles and norms contained both in the new land use legislation and the National Environmental Management Act, are ignored or inappropriately applied.

21.1.2 Components of Land Use Management System

A Land Use Management System can be made up of the following components:

- A Spatial Development Framework
- A Land Use Management Framework
- A Land Use Scheme
- Rates database

21.1.2.1 Levels of LUMS

The LUMS has recognised the different levels of complexity of land use management required, depending on the area. The basic concept is a continuum of Planning Schemes which allows for land to be zoned over a whole municipality, whether it is an urban, peri-urban or rural area. The different levels of LUMS are described below:

Table 37: levels of LUMS

	Type of scheme	Description	Scheme intention	Priority area
COMPLEX APPROACH	Comprehensive Planning Scheme	For a more complex urban and metropolitan areas. It also entails a greater number of zones, regulations and management overlays based on the need for a finer grain of land use differentiation, and on differences of intensity as well as a whole range of different zones and districts within those zones.	Mandeni • Residential • Commercial • Business • Industrial • Mixed uses	1
			Sundumbili	1

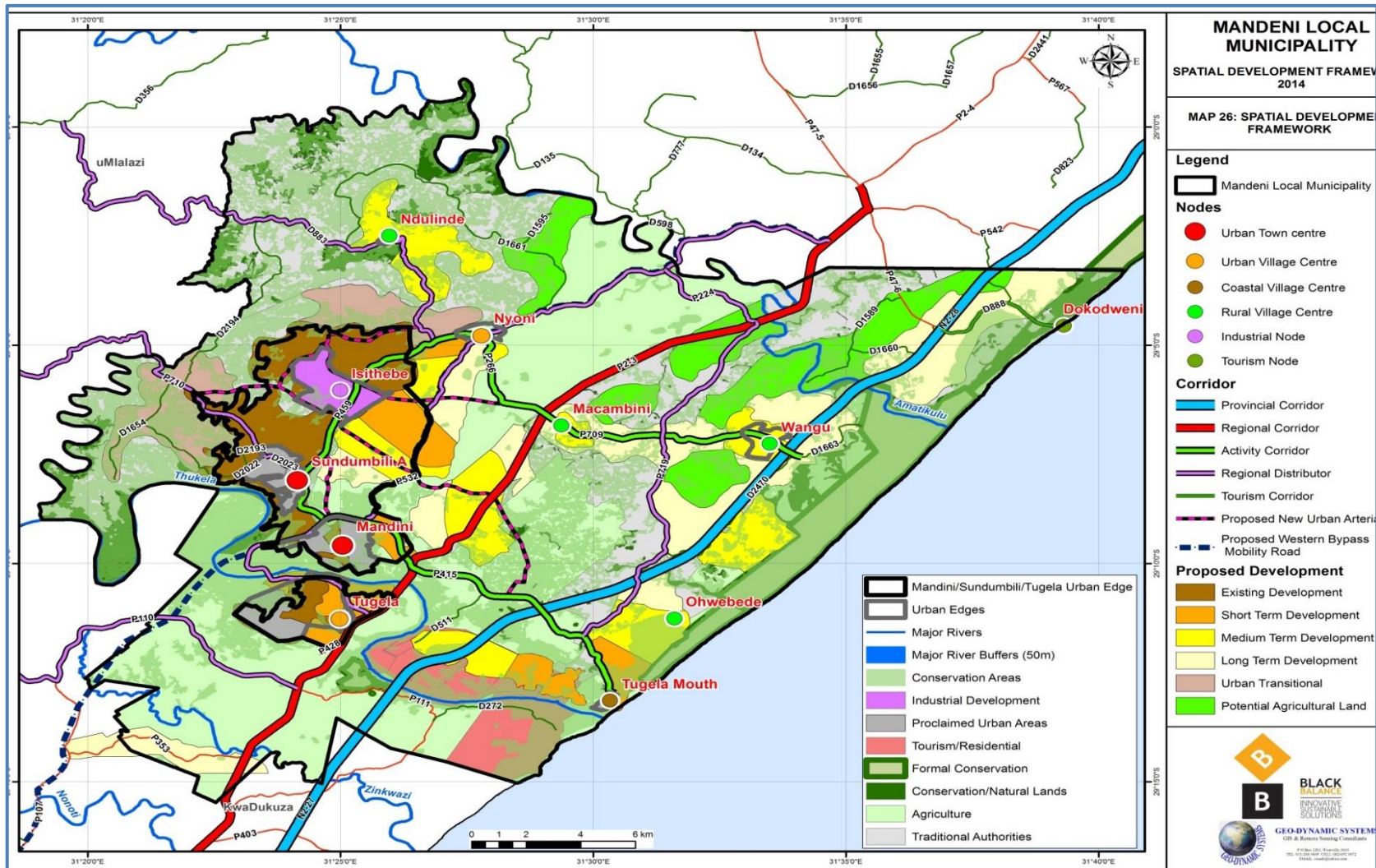
- Cadastral and property database
- Information regarding the provision of services
- Property ownership and tenure
- Environmental issues and requirements
- Transportation requirements

Not all LUMS will have all of the above components. It will be dependent on where the LUMS is located and the level of complexity.

	Type of scheme	Description	Scheme intention	Priority area
			- Residential - Mixed use	
			Tugela - Residential - Commercial	1
			Isithebe - Residential - Industrial	
	Primary	A Primary Planning Scheme would be applied to small towns and settlements where a greater level of land use management is required.	Tugela Mouth - Private residential - Commercial - Estates - Tourism	1
			Nyoni - Residential - Commercial	2
SIMPLE APPROACH	Elementary	Involves fewer zones and regulations and is normally applicable to small rural settlements, emerging settlements, unproclaimed towns and areas where there is settlement but either no or imprecise cadastral boundaries.	Wangu - Residential - Commercial	2
			Dokodweni - Residential - Commercial - Tourism	2
			Macambini	3

	Type of scheme	Description	Scheme intention	Priority area
			Residential	
			Ndulinde	3
	Rural	This is the most basic of the planning schemes and may just comprise three or four different land use zones	All rural areas Residential	4

Map 39: Scheme Typology



Source: Black Balance projects

2.3.42. SUSTAINABILITY ASSESSMENT

The Department of Agriculture, Environmental Affairs, and Rural Development (DAEARD) has provided a Sustainability Appraisal tool which it defines as follows (the entire Section is sourced and quoted from DAEARD, 2009):

- Sustainability Appraisal [SA] provides a critical evaluation of the performance of a Plan against predetermined social, economic and environmental criteria so that the potential impacts of the Plan be evaluated and its performance can be improved. SA seeks to help inform decision-making by providing information on the potential environmental implications of policies, plans or projects.
- SA's help to ensure that plans, strategies and proposals take into account the principles of sustainable development. The process permits a qualitative assessment of a plan, strategy, or proposal against independent sustainable development objectives.
- Sustainability Appraisal can be an effective technique for integrating sustainability considerations into plan making and evaluation, and has the advantage of being quicker than standard Strategic Environmental Assessments, producing a less rigorous, though still valuable, broad analysis, usually in the form of a checklist with accompanying explanation. This allows fairly rapid assumptions to be made about the sustainability impact of individual policies and plans and, indicates where policy adjustments need to be made.
- The SA checklist comprises a list of statements related to economic, social and environmental issues and concerns that are based on the Municipality's Environmental Policy, the National Environmental Management Act Principles and the Development Facilitation Act Principles. Adjacent to the statements column is a column that relates to the qualitative assessment i.e. whether the proposed plan, policy or proposal has a Very positive, Positive, Neutral, Negative or Highly Negative impact or effect against each statement.
- An example of a positive impact might be the provision of work opportunities in close proximity to residential areas thereby reducing travel costs and impacts. A negative impact might be destruction of habitat through urban expansion. If due to the nature of the activity, a statement has no bearing on the activity concerned, then a Neutral or No Impact statement can be used.
- A description of the potential impacts and effects on the sustainability criteria should be provided in the commentary column to justify the scoring of the potential effect or impact.
- Sustainability Appraisal is not a rigid system but a practical approach to ensure that significant direct and indirect impacts of a programme are considered. It is important not to labour over it. The level of resources involved in each appraisal should be directly proportionate to the policy or programme.
- Individual Appraisal's should be done for the plan as a whole and for the major development changes or options proposed within the plan.

21.1.3 Mandeni Spatial Development Framework against the strategic priorities of the National Strategy for Sustainable Development.

NSSD 1 STRATEGIC PRIORITY 1: ENHANCING SYSTEMS FOR INTEGRATED PLANNING AND IMPLEMENTATION	
Key Environmental Issue: Limited Capacity and Systems for Integrated Planning and Implementation to achieve Sustainable Development	Integration into Mandeni SDF
Insufficient intergovernmental co-operation and co-ordination for effective environmental governance; Poor monitoring and evaluation systems to assess progress towards sustainability; Insufficient resources and capacity made available for environmental management; Limited integration of sustainability into development planning.	
Sustainability Objective	
Enhanced and effective environmental governance, institutional structures and systems to achieve integrated planning and implementation.	
Sustainability Criteria	
Environmental sustainability criteria are integrated into Policies, Plans, Projects and decision making.	Yes
Co-operative environmental governance structures and mechanisms promote integrated planning and ensure efficient and effective implementation of environmental functions and responsibilities.	Partially
Financial resources and capacity enable the implementation and management of environmental functions and responsibilities.	No
Municipal capital investment projects comply with relevant environmental legislative requirements.	To be adhered to
Communities are informed, empowered and involved in the process of democratic environmental governance.	Partially
Access to environmental information is facilitated and encouraged.	Partially
Monitoring and evaluation systems assess and report on the progress towards sustainability.	Partially

NSSD 1 STRATEGIC PRIORITY 2: SUSTAINING OUR ECOSYSTEMS AND USING NATURAL RE+SOURCES EFFICIENTLY	
Key Environmental Issue: The Degradation of Land and Natural Resources	Integration into Mandeni SDF
Inappropriate land use and poor land management is resulting in land degradation, the loss of natural resources and reduced potential for the provision of ecosystem goods and life support services. This includes the loss of agriculturally productive land and a decline in biodiversity which has significant social and economic impact.	
Sustainability Objective	
The use of natural capital is compatible with the maintenance of ecosystem functionality and natural resources are protected and restored.	
Sustainability Criteria	
Areas identified as being essential for the persistence of biodiversity and for the provision of ecosystem goods and services are valued, protected and continually enhanced.	Yes
Degraded areas are identified, rehabilitated and managed to promote land productivity	Partially
High potential agricultural land is protected and rehabilitated for sustainable agricultural production.	Yes
Agricultural production is enhanced and increased through environmentally sustainable agricultural practices.	Yes
Areas of geotechnical, geological or instability risks are identified and avoided in land development.	No
Compact land development patterns use land efficiently.	Proposed in SDF
Key Environmental Issue: Excessive Water Demand Exceeds Available Supply	Integration into Mandeni SDF
Current water demand from the Tugela catchment area is exceeding sustainable levels and is stressing the aquatic ecosystems. Rapid urban & industrial expansion and population growth is increasing demands and this is compounded by inefficient water use and wastage. Degraded catchments and aquatic ecosystems diminish the ability of the natural systems to sustainably supply water. Dams and inter basin-transfer schemes increase costs of providing water to the consumers and negatively impact on overall river health and natural systems	

Sustainability Objective	
The ability of aquatic resources to provide water is maintained within the limits of sustainability.	
Sustainability Criteria	
Wetland areas, streams and rivers are protected, rehabilitated and managed to maintain ecological functioning.	Yes
Flood prone areas are managed to promote ecosystem goods and services, to minimise flood risks and impacts.	Partially
Water demand management results in minimised water loss and optimised water conservation.	To be applied
Everyone has access to the minimum supplies of potable water needed to maintain their health and well-being.	No
Catchment and river management policies and guidelines integrated into land use and development planning.	Partially
Equitable and fair access to water supplies is provided for all water users.	Partially
Key Environmental Issue: Reduced Water Quality	Integration into Mandeni SDF
Land degradation, Industrial effluent, and, poor sewerage, solid waste and storm-water management are impacting on water and aquatic ecosystem quality. This is resulting in declining social and economic conditions including increased health risks and costs; decreased river health; increased water treatment costs; increased risk of liability to the Municipality; increased water charges; and, decreased investor interest.	
Sustainability Objective	
Water quality in all aquatic ecosystems in the District is significantly improved and maintained.	
Sustainability Criteria	
Bacteria and pathogens in all aquatic systems do not pose a significant risk to health and wellbeing.	Investigation required
Nutrient concentrations and loads in all aquatic systems reverse current unacceptable trends of eutrophication.	Investigation required
Aquatic ecosystems are in a functional and healthy state.	Investigation required

NSSD 1 STRATEGIC PRIORITY 3: TOWARDS A GREEN ECONOMY	
Key Environmental Issue: Economic Growth that is not Linked to Sustainable Resource Use and Environmental Impact	Integration into Mandeni SDF
Resource and ecosystem degradation due to over-exploitation of natural capital. Persistent poverty, unemployment, social dependency and inequality. An economy that is based on intensive resource consumption is depleting non-renewable and renewable resources beyond sustainable levels.	
Sustainability Objective	
Economic goals based on ecological sustainability and built on a culture that recognises that socio-economic systems are dependent on and embedded in ecosystems.	
Sustainability Criteria	
An environmentally sustainable economy promotes distributional equity, is resource efficient and provides for the rehabilitation and sustainable management of natural capital.	Yes
Absolute poverty is eradicated and the wealth gap is reduced.	Partially
A low-carbon economy that relies on clean, renewable and efficient energy sources and transport options.	No
A resource efficient economy that optimises its use of water while significantly reducing waste generation.	Partially
An equitable and broad range of employment opportunities exist that provide people with an income to support themselves and their families.	Partially

NSSD 1 STRATEGIC PRIORITY 4: BUILDING SUSTAINABLE COMMUNITIES	
Key Environmental Issue: Inefficient Spatial Planning and Urban Design; Inadequate Provision of Basic Services Including Water, Sanitation and Waste Management;	Integration into Mandeni SDF

Rapid population growth and urbanisation increases pressures on Municipalities to sustainably supply services. A large number of poverty stricken people live in informal settlements which are detrimental to their health and well-being. Safe, clean and pleasant environments will need to be provided. Increased demand for development is placing pressure on the optimal use of land and the provision of sustainable services and infrastructure. Urban design does not optimise resources efficiency particularly in relation to electricity usage, water and sewer provision, waste management and accessibility of public transport.

The lack of equitable and universal access to basic services such as effective waste removal and the provision of appropriate sanitation and water services impact on human health and well-being and result in a deterioration of the quality of life. Waste recycling initiatives are not easily accessible to the majority of people in the District.

Sustainability Objective

Environmentally sustainable communities are established where development is informed by social needs and the improvement of the quality of life and does not compromise the natural environment and cultural heritage.

Sustainability Criteria

Environmental sustainability and ecosystem goods and services are integrated into development planning.	Yes
Sustainable municipal bulk service infrastructure and facilities are available, maintained and managed, to sustainably meet the needs of residents and business.	Partially
All residents have appropriate, secure and affordable housing and access to basic services in order to meet their basic needs and to live with dignity.	Partially
Communities vulnerable to environmental risk are identified and strategies are in place to minimise these risks.	Partially
Environmental justice and equity must be pursued so as to ensure that environmental impacts do not unfairly discriminate against any person or community.	Partially
Community services, facilities, community parks and open spaces are accessible to all people.	Partially
An efficient, safe, integrated and convenient network of public transport, bicycle routes and pedestrian access is provided.	Partially
Safe, clean and pleasant environments are provided to protect and enhance human health and well-being and improve overall quality of life.	Yes

Resources use is minimised through energy efficiency, reduced water demand, efficient waste management and the provision of accessible public transport.	Partially
Cultural and natural resources and sense of place are protected and maintained.	Partially
Indigenous ecological and cultural knowledge is developed and integrated into planning and management processes.	Partially

NSSD 1 STRATEGIC PRIORITY 5: RESPONDING EFFECTIVELY TO CLIMATE CHANGE	
Key Environmental Issue: Localised Poor Air Quality and Greenhouse Gas Emissions Contributing to Climate Change	Integration into Mandeni SDF
Poor air quality issues due to improper waste management. In terms of waste disposal, there is a regulated landfill site which appears to be a private landfill site that operates in KwaDukuza Municipality. Mandeni does not own or operate its own landfill site. Residents have been dumping waste in unregulated areas. Gas emissions such as Methane are prevalent, resulting in poor soil and air quality. Fertilisers and pesticides used on agricultural land can contribute to poor soil, water and air quality. A decrease in natural capital diminishes the municipality ability to sequester carbon and mitigate predicted climate change impacts.	
Sustainability Objective	
Air quality is significantly improved, Greenhouse gas concentrations are reduced and there is resilience to climate change within communities and ecosystems.	
Sustainability Criteria	
Ambient air quality standards for the protection of human health and well-being and natural systems are maintained.	No
A low-carbon economy is achieved through energy efficiency, the use of alternative technology and reducing the dependence on fossil fuels.	No
Greenhouse Gas emissions are reduced to levels in line with Cabinet approved targets.	No
Natural systems are restored and maintained to be suitable for the sequestration of carbon and mitigate for climate change.	No

Climate change adaptation strategies effectively build and sustain social, economic and environmental resilience to climate change.	Partially
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21.1.4 Strategic Environmental Assessment (SEA)

The Mandeni Municipality does not currently have a Strategic Environmental Assessment Plan in place. Through the development of the District Environment Management Framework Mandeni Local Municipality has been able to incorporate the key principles within this plan that are talking to the SEA into the Municipal SDF and Coastal Management Plan.

The development of the municipal SEA or incorporation of the principles of SEA into our planning mechanism will also give effect to the Municipal Planning and Performance Regulations (2001) that requires inter alia that *“a spatial development framework reflected in a municipality's integrated development plan must contain a strategic assessment of the environmental impact of the spatial development framework”*.

The primary reason for this legal requirement is to give effect to Chapter 5 of the National Environmental Management Act (Act No. 107 of 1998) (NEMA) which deals with Integrated Environmental Management (IEM). The development of the Mandeni SEA will need to integrate the objective of IEM to feed into the next Mandeni SDF Review.

IEM is the key instrument of the National Environmental Management Act (NEMA). South Africa's NEMA promotes the integrated environmental management of activities that may have a significant effect (positive and negative) on the environment. IEM provides the overarching framework for the integration of environmental assessment and management principles into environmental decision-making. It includes the use of several

environmental assessment and management tools that are appropriate for the various levels of decision-making.

The aim of IEM is sustainability. The SEA is an accepted and widely used IEM tool to integrate sustainability considerations into policies, plans or programmes.

The aim of the evaluation is to confirm that the SDF is compliant with the MSA Regulations. And that it contributes positively towards sustainability in the institutional, economic, social and ecological dimensions across sectors.

As part of its environmental plans, the District is current finalising its Environmental Management Framework (EMF), a tool similar to the SEA. The EMF will assist in understanding the environmental assets within the District as well as recommending ways of preserving such assets. A number of environmental issues, which need to be managed, have been identified by the EMF, namely, biodiversity, connectivity, vegetation type, wetlands, rivers and estuarine systems within the area.

2.3.43. Monitoring and evaluation

OBJECTIVES	PERFORMANCE INDICATORS	MEANS OF VERIFICATION
Encourage strong and viable nodes	• Development of a land use scheme for the areas of Mandeni Town, Sundumbili, Isithebe as well as Utugela • Level of access and location of public facilities serving different communities in these nodes	• Identify projects and assign budgets for each project in each node
Development of Social and Service Infrastructure	• Supply of potable water to all households within nodal areas; • Number of households with toilet facility; • Eradication of electricity backlogs • Number of households with solar-powered geysers and electricity connection • Frequency of waste collection in nodal areas and settlements • Provision of additional health facilities and maintenance of existing facilities • Frequency of mobile services to remote settlements; • Number of new health facilities	• Determination of standards for facility provision in nodal areas. • Improved access to water and sanitation services • Improved access to energy • Phased municipal waste collection services • Improved access to social facilities
Unlocking Economic Development	• Increased investment in terms of tourism, leisure and commercial within Mandeni • Number of new tourism facilities and products located in Mandeni. • Number of local people involved in local economic initiatives • Commercial & industrial development support. • Percentage increase in commercial land.	• Attract Private sector investment • Local Tourism development • Commercial & industrial development in nodal areas • Public-private partnerships for economic initiatives • SMME development

Continuum of Sustainable Human Settlements	• Finalisation and implementation of housing projects • Establishment of Land use scheme for Nodal areas • Development of a Local Area Plan including a densification strategy for Isithebe • Development of settlement plans for dense rural settlements. • Identification of appropriately located land for housing development and infill development.	• Determination of standards for facility provision in different settlement types (urban, dense rural, dispersed rural).
sustainable environmental conservation and management	• Development of a Water Resource Management Strategy • Delineation of 1:50 years and 1:100 year flood-lines along the major rivers • Relocate settlements under high flood risk potential areas. . • Improved sanitation and waste management services in nodal areas. • Protection of the nature reserves • Application of carrying capacity standards to grazing land management. • Extent of land cleared of alien plants. • Rehabilitation and Protection of indigenous forests. • Inclusion of an Environmental Management overlay on Wall-to-wall scheme.	• Effective Water Resource Management • Delineation of flood risk areas • Establishment of Municipal Open Space System • Alien invasive plant management • Established programmes for clearing of invasive aliens through Working for Water, or other forms of rehabilitation e.g. through working for Wetlands, etc. • Established environmental management programs.
Regional Access and Road Network	• Number and location of roads upgraded. • Kilometres of roads upgraded. • Construction of new roads. • Number of high impact and catalytic projects located along development corridors. • Type and level of services provided to settlements located along development corridors.	• Upgrading of major access and arterial/link roads. • Improving access to the existing and growing settlements. • Location of development nodes along and at the intersection of key roads. • Focusing development projects on settlements located along highly accessible routes.
Protection of agricultural land	• Identification and mapping of agricultural land with high potential. • Size and use of high potential agricultural land.	• High potential agricultural land • Agricultural protection plans • Agricultural development support

	• Scheme clauses designed to protect high potential agricultural land. • Introduction of land use controls for agricultural land. • Initiatives to promote agriculture. • Direct support to land reform projects.	
Sustainable Spatial Planning System	• Number of LAP's prepared • Number of approved settlement plans • Generation of new spatial data • Improved GIS system and data • Accepted norms and standards for site sizes. • Identified factors that should be considered when allocating land for different land uses. • Spatial identification and coding of rights allocated. • Register of land rights holders • Improved capacity and understanding of spatial information by Traditional leadership	• Development of Local Area Plans for development nodes • Developing settlement plans • Mapping of settlements within each izigodi • Development of Guidelines for land Allocation • Training and Capacity Building of Traditional leaders

2.3.44. Regional strategies for Ilembe DM Municipalities

	EXISTING	SHORT-TERM	MEDIUM-TERM	LONG-TERM
Triggers				
Development Areas	NA	• Ballito N2 Area Expansion • Rural Town (re)development, e.g. Ndwedwe, Maphumulo and Bamshela • Driefontein Development Area • Infill of existing laid-out areas	• New and Upgraded Rural Towns • Aerotropolis Establishment • Major Coastal Resort Town (s) Established	• Other Coastal Resort Towns • Other Industrial

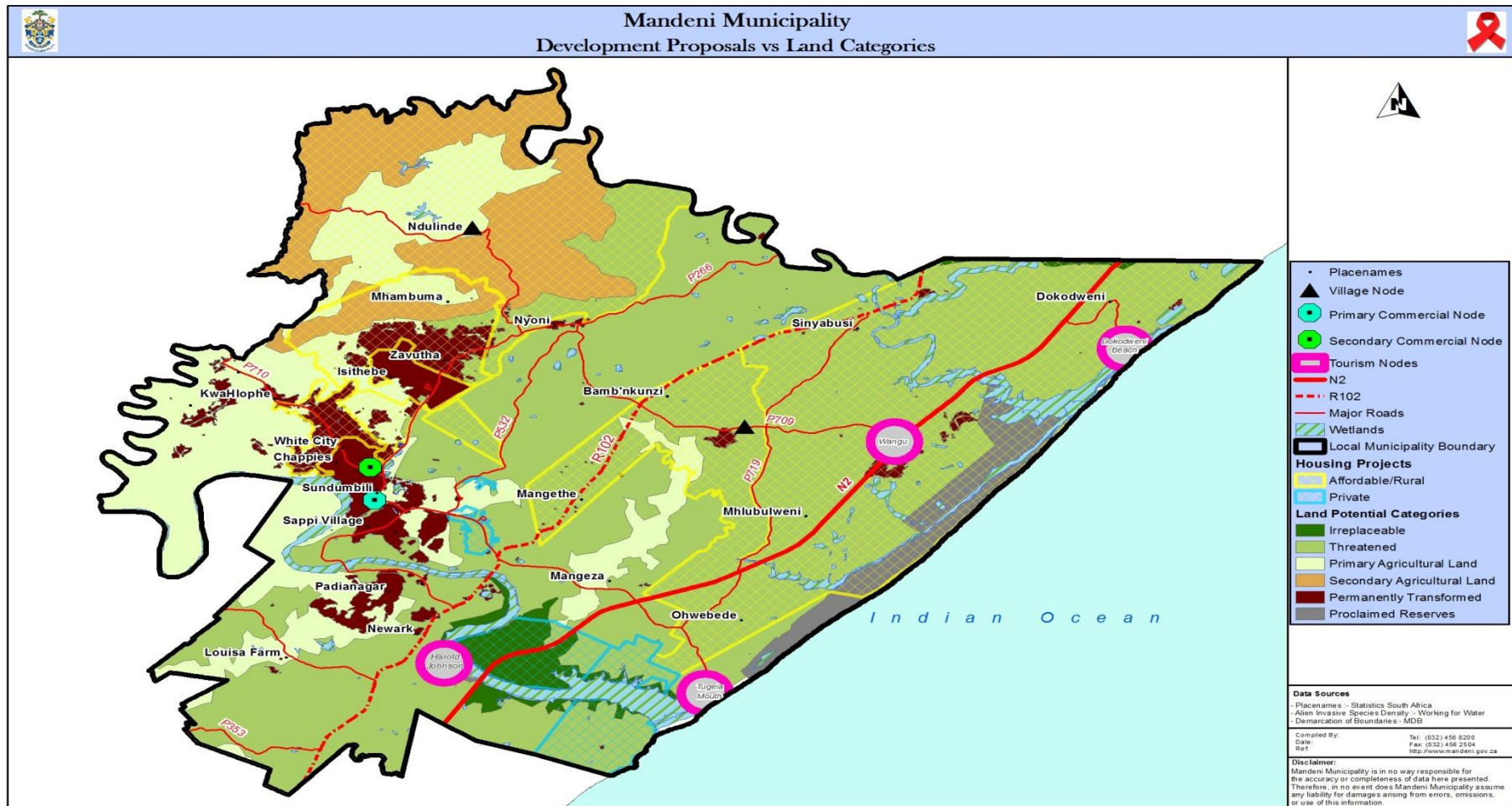
		including Gledow, Groutville and Coastal Towns		
Infrastructure Development	NA	- Major rural linkages - Addressing Bulk Water (North Coast Pipeline)	- R102 Upgrading - Addressing Bulk Water (further capacity incl. desalination) - N3 Link Road to Pietermaritzburg - Western Bypass (Tongaat to KwaDukuza)	- N3 Lind Road to Pietermaritzburg - Western Bypass (KwaDukuza to Mandeni)
Institutional Triggers	NA	- District / Enterprise Ilembe Adopts 2050 Plan - Re-demarcation Approved	- Achieving Metropolitan Status - Tertiary Education Institution	
Economic Triggers	NA	- Agri- hub Development - Co-generation Projects by sugar and timber industries - Compensation Flats Industrial - Establishment of Nature Areas with tourism impact - Major Industry attracted (e.g. motor vehicle manufacturer)	- Green energy industry establishment - Industrial Extension for Isithebe - Industrial Clusters along R102	- Balance of Industrial Clusters along the R102 - Industrial Clusters on / or near intersections with Western Bypass
Infrastructure				
Water	Existing system	- Planned area can be supplied with water in terms of current planning - Supporting dams have been identified	- Bulk services plans need to be augmented - Servicing Reservoirs to be identified	- Bulk services plans need to be augmented - Servicing Reservoirs to be identified
Sanitation	Existing system	New regional sewerage treatment facilities identified	New regional sewerage treatment facilities identified	New regional sewerage treatment facilities

	Is close to capacity			identified
Solid Waste	Existing system	- Existing facility can serve Short-term growth - Recycling to be promoted	Additional sites to be identified	Additional sites to be identified
Electricity	Existing supply system is limited, needs upgrading	- Plans are in place for increased reticulation - But not in alignment with IDM	- Plans are in place for increased reticulation - But not in alignment with IDM - Sustainable energy developments to be promoted.	- Plans are in place for increased reticulation - But not in alignment with IDM
Transportation	Existing system	- R102 upgraded to a 2+2 configuration - Connect DTP to P100 to enhance Access to Ndwedwe - Improve interchanges along the N2	- Rail service intensified - N2 upgraded to 3+3 configuration - Western Bypass connection to Kwadukuza - Ndwedwe far outer west Collector initiated as 1+1 road	- R614 upgraded - Isonono / Ndwedwe Road connected and upgraded - Western Bypass connected Kwadukuza to Mandeni
Residential				
Residential Consolidation /Infill	Existing Development	- Nodal Corridor - Groutville - Gledhow - Current DFA's	NA	NA
		- Rural Towns Mandeni - Maphumulo - Ndwedwe	NA	NA

		- Ntunjambili - Bhamshela Tugela		
Expansion / Greenfields	NA	Coastal Towns - Ballito - Blythedale - Zinkwazi - Skeas Rock	Coastal Towns - Nonoti Tugela Mouth	Coastal Towns - Nonoti Tugela Mouth
		- Nodal Corridor - Stanger - Darnall	- Nodal Corridor - Stanger - Darnall - Shakaskraal - Umhlali	- Nodal Corridor - Village expansion to lateral mini-corridors
		- Rural Towns - Mandeni - Maphumulo - Ndwedwe	- Rural Towns - Ndwedwe- Nsuze - Maphumulo-Phambele - Isonono New town - Mandeni extension	- Rural Towns Mandeni Sundumbili - Maphumulo - Ndwedwe
Industry				
New Industrial	NA	- Compensation Flats - Stanger - Clusters along R102	- Clusters along R102 - Extension to Sundumbili	Clusters along Western Bypass
Nodes/ Centres				
Expansion	Existing	- Core Centres consolidated to small Regional Size - Nodal Corridor Centres to N'hood level - Ndwedwe to Hub Rural	- Core Centres to Regional Size - Nodal Corridor Centres consolidated as N'hood level centres - Ndwedwe to Neighbourhood	- Core Centres consolidated as Regional Size - Nodal Corridor Centres consolidated at N'hood

		Service Centre • Maphamulo to Hub Rural Service Centre • Mandeni to Neighbourhood level Centre	level Centre • Maphamulo to Neighbourhood Centre • Mandeni consolidated as Neighbourhood level Centre	level • Ndwedwe consolidated as Neighbourhood level Centre • Maphamulo consolidated as Neighbourhood Centre • Mandeni consolidated as Neighbourhood level Centre
New	NA	• Rural Villages to Satellite Rural Service Centres	• Rural Villages consolidated as Satellite Rural Service Centres • Nonoti as Neighbourhood centre • Isonono as Neighbourhood Centre	• Long-Term nodes on WesternBypass

Map 41: Proposed Developments VS Land Capability



22 CAPITAL INVESTMENT FRAMEWORK

Table 38: Capital Investment Framework

NO.	PROJECT NAME	WARD NO.	SOURCE OF FUNDING		CPI INFLATION	CPI INFLATION	CPI INFLATION
				CURRENT BUDGET 2016/2017	PROPOSED BUDGET 2017/2018	PROPOSED BUDGET 2018/2019	PROPOSED BUDGET 2019/2020
1	Construction of Community Hall in Ward 18	18	MIG	3 377 930	210 000		
2	Construction of Community Hall in Ward 13	13	MIG	589 403	4 248 702	400 000	
3	Chappies Sports field	14	MIG	2 475 727	3 705 273	300 000	
4	Construction of Sidewalks	3	MIG		1 322 866	1 300 000	
5	Construction of Sidewalks	VARIOUS WARD	MIG				1 000 000

		S					
6	Upgrade of Hlomendlini Bus Route	4	MIG	10 007 308	4 258 045	676 463	
7	Upgrade of Roads in Highview Park	3	MIG	1 522 591	9 929 993	15 417 705	1 300 000
8	Installation of Streetlights in Mandeni	ALL WARDS	MIG	960 309	3 118 303	3 763 605	300 000
9	Nyoni Phase 3 - Construction of under-pass	10	MIG		4 286 768	4 296 959	400 000
10	Project Management Unit		MIG		1 774 050	1 868 500	1 968 200
11	Upgrade of Link Road between Amajuba Road (Ward 15) and Road 116 (Ward 14)	14, 15	MIG				3 000 000
12	Upgrade and Improvement of Enembe Road	7, 13, 14, 15	MIG		1 500 000	7 295 351	10 304 800
13	Planned Sportsfield at Enembe /	5	MIG		800 000	6 245 000	344 500

	Dendetu						
14	Construction of a Swimming Pool in Ward 15	15	MIG			300 000	4 500 000
15	Recreational play park facility on Sports fields for children	VARIOUS WARDS	MIG		1 000 000		1 000 000
16	Upgrade of Link Road between Masomonce Bus Route (Ward 12) and Road 61 (Ward 13)	12, 13	MIG			500 000	6 500 000
17	Erection of Bus Shelters	VARIOUS WARDS	MIG				100 000
18	Relocation of the Sundumbili Plaza Sportsfield to facilitate CBD upgrade and Improvement	7	MIG			300 000	2 146 500
19	Upgrade and Improvement of Machibini Sportsfield	12	MIG				2 500 000
20	Construction of Community Hall in Ward 5	5	MIG				1 000 000
21	Upgrade of Link Road between Shayamoya Road (Ward 7) and	7, 15	MIG				

	Amajuba Road (Ward 15)						
22	Upgrade of Flamboyant Road	3	MIG				
23	Nyoni Housing Phase 4 - Bulk Services	10	MIG				
24	Ablutions and grand stands for sports facility in Highview Park	3	MIG			750 000	
25	Ablutions and grand stands for sports facility in Padianagar	4	MIG			750 000	
26	Construction of Community Hall	10	MIG				
27	Installation of Streetlights in Mandeni - Phase 2	ALL WARDS	MIG				500 000
28	Fencing of Ward 13 cemetery	13	MIG				
29	Upgrade of Link Road between Masomonce Bus Route (Ward 12) and Enembe/Isithebe Link Road (Ward 12)	12	MIG				
30	Upgrade and Improvement of	13, 14,	MIG				

	Bumbanani Road	15					
31	Amanda Farm Housing	7	MIG				
32	Grand stand and Lighting at KwaChilli Sports field	18	MIG				500 000
33	New Sports field in Ward 16	16	MIG				
34	Construction of Community Hall	16	MIG				
35	Infrastructure for New Cemetery		MIG				2 000 000
36	Installation of Streetlights in Mandeni - Phase 3	ALL WAR DS	MIG				
37	CBD Upgrade and Improvement Project - Phases 1-3	7	NDPG	13 400 000	11 178 000		
38	Multi-modal Public Transport Facility	7	NDPG		In-house planning	In-house planning	In-house planning
39	Informal Trader Facilities	7	KZN COGTA / NDPG		In-house planning	In-house planning	In-house planning

40	Household Electrification Programme - Ifalethu	3	INEP	7 500 000	4 000 000		
41	Household Electrification Programme - Mangeza	3	INEP		4 000 000		
42	Household Electrification Programme - Kenan	10	INEP		2 000 000	2 000 000	2 000 000
43	Electrification Projects	VARIOUS WARDS	INEP			10 000 000	10 000 000
44	Package B – Guardhouses, security fence, gates and driveway	3	MLM		4 000 000		
45	Package C – Council Chambers Upgrade and Extension	3	MLM		4 000 000		

23 Cogta MEC Comments

CRITERIA	KEY FINDINGS	RESPONSE BACK	Page No.
SECTION 1: Minimum requirements FOR THE SUBMISSION of an SDF			
1. Was the SDF submitted as part of the IDP?	The SDF was submitted as part of the IDP.	The SDF document was attached as part of the IDP.	-
2. Is an abridged version included as a section in the IDP?	There is no detailed SDF attached as an Annexure to the IDP.		
3. Is a detailed SDF attached as an Annexure to the IDP?			
1. Does the SDF submitted include text and the associated Maps?	The SDF submitted include text and maps.	Yes	-
2. Does the SDF clearly indicate a strategic focus?	The SDF document does indicate a strategic focus	yes	
3. Does the SDF clearly show how the comments from the previous assessments have been addressed?	MEC comments have not been addressed. It is recommended that this issue be addressed in the next review.	Addressed, will be indicated at the end of the doc.	130
SECTION 2: Minimum legal requirements FOR LEGAL COMPLIANCE			
4. Does the SDF promote the desired direction and nature of growth	The SDF indicate Nodes, Corridors that describe the direction of growth for the municipality.	Achieved	132-135
5. Does the SDF promote conservation of the built and natural environment	The municipality promotes sustainable management and use of the resources making up the natural and built environment. an Agricultural Sector Plan is to be developed, in collaboration with		136

	KZN DARD , with a vision for agriculture in the municipality, in which high value agricultural land is identified, prioritized and protected from non-productive land uses. Concerned that the conservation of natural environment is based on old information, and how the sensitive areas were arrived at that need to be protected are not clearly shown	Achieved	
6. Does the SDF take cognisance of, and propose strategies to address Informal Settlements?	The municipal SDF indicates that the municipality include the provisions that enable redress in access to land by the disadvantaged communities.	Yes, Inyoni Housing Project is one of the projects aimed to address and reduce informal settlements.	144
7. Does the SDF promote Areas where development intensity is to be increased or decreased?	The SDF presents a development framework which identifies Development Thrusts, Spatial Intervention Areas, Intended Future Land Uses, Development Corridors and Service Centres or Activity Points.	Achieved	150
8. Does the SDF indicate Urban Edges and Development Edges and discourage “sprawl?”	The municipal SDF is indicative of urban edges and development edges that curbs urban sprawl. Although the SDF refers to the implementation of urban edges and discouragement of sprawl, there is no indication of where this has been applied, besides being a principle. It is recommended that the SDF in the next SDF review indicate where implementation of urban edges and discouragement of sprawl have been applied.	Achieved, this was the new document, this will be implemented as on-going	141-148
9. Does the SDF identify, quantify and provide location requirements of engineering infrastructure and services provision for existing and future development needs for the next five years?	It is not clear where the municipality is making provisions for engineering infrastructure requirements for the next five years. It is recommended that the SDF clearly indicate where the municipality is making provisions for engineering infrastructure, services for existing and future development needs for the next five years. The SDF does not address land reform aspects; it did not map the projects adequately for status quo purposes. Please note that more strategic mapping is required to depict these projects in relation to existing civil services (Bulk Infrastructure)	partially	156

	and in relation to high potential agricultural land.		
10. Does the SDF entail Strategies, Programs and Projects for the development of land?	The SDF identifies clear objectives, strategies and spatial policy guidelines. There is no clear indication of projects. The municipality has only presented the status of the municipality and have not gone into detail about the projects and future plans.	Achieved, projects were indicated with a use of map	187
11. Does the SDF include and integrate previously disadvantaged areas, areas under traditional leadership, rural areas, informal settlements, slums and land holdings of state-owned enterprises and government agencies, into the spatial, economic, social and environmental objects of the Municipality	The municipality seeks to integrate people of various classes through Land Use Management System.	Achieved but still need some improvement especial in educating the community.	142
12. Does the SDF take cognisance of any environmental management instrument adopted by the Municipality?	It has been noted that the SDF neither shows nor mentions any environmental management instrument that has been adopted by the Municipality if there's any.	Not correct, it does include, especial page 59-70	
1. Does the SDF provide a Capital Investment Framework? 2. If a Capital Investment Framework was included, is it also depicted spatially?	The Capital Investment Framework is included in the SDF and it's also presented spatially in maps.	Need to be addressed	187
13. Include a strategic assessment of the environmental pressures and opportunities within the municipal	Strategic assessment and environmental sensitivity is presented on the SDF. The Environmental features were set out in several maps, but lacked contextualisation of these features and what		68

area, including the spatial location of environmental sensitivities, high potential agricultural land and coastal access strips, where applicable?	they meant for spatial planning within the LM. Old TSCP map used and not the CBA map. Although there was some acknowledgement of features such as corridors (however outdated information), wetlands, PAs etc. No acknowledgment of sensitivities of PA to surrounding land uses (although IMP summary was provided for Amatikulu) Conservation Areas on SDF included some sensitive area (river buffers & TSCP) but not all and was out-dated as not CBA map inclusion. Also no corridors on SDF map	This section was addressed, but further information can be added or will be added.	
14. Does the SDF provide a strategic assessment of its Proposals / Interventions impact on the Environment?	The municipal SDF indicates that environmental justice is pursued to ensure that environmental impacts do not unfairly discriminate against anyone.	Achieved	
15. Does the SDF provide a clear indication on how the SDF is aligned with the planning of neighbouring municipalities? 16. Is the alignment of initiatives with that of Neighbouring Municipalities depicted spatially?	The SDF shows the alignment with surrounding Local Municipalities through Development Corridors, Cross Boundary Dependencies etc. Provides a map presenting cross boarder alignment.	Achieved	151
17. Does the SDF provide a clear indication on how the SDF is aligned with National Plans, policies and legislation?	The SDF is said to be governed by a number of national legislative and policy directives, this is well demonstrated in the municipal SDF.	Achieved	11-26
1. Does the SDF contain Scheme Guidelines that promote where particular land use types/ typologies	This is not forthcoming in the SDF. The areas prioritized for agricultural protection must in turn be aligned with those identified by the local municipalities' (SDF schemes/zoning)	A detailed guidelines for LUMS	160

are to be encouraged or discouraged?	which must also contain appropriate management guidelines. Discussion on LUMF but no guidance on how biodiversity was to be incorporated into LUMF.	were provided in our SDF(page 162-170)	
2. Do the SDF provide Guidelines for the development of a specific scheme/ design/ rural schemes?	It is recommended that the SDF in the next SDF review include scheme guidelines that promote where particular land use types/typologies are to be encouraged or discouraged and also provide guidelines for the development of specific scheme/design and rural schemes.		
18. Does the SDF provide clear evidence of public consultation as is required in terms of the MSA chapter four (4)?	There is no evidence of public participation. It is recommended that the SDF include clear evidence of public participation in the next SDF review.		
19. SECTION 3: MINIMUM REQUIREMENTS FOR THE DEVELOPMENT OF A VISION AND SPATIAL		20.	21.
22. Include a longer term spatial development vision statement for the municipal area which indicates a desired spatial growth and development pattern for the next 10 to 20 years?	The municipal SDF captures the long term development vision of the municipality and the desired growth is well articulated.	Achieved	123
23. Does the SDF include a written and spatial representation of a five-year spatial development plan for the spatial form of the municipality?	This aspect is not reflected in the SDF. It is recommended that the SDF take consideration of this aspect in the next SDF review.	achieved	123
24. Is the SDF vision in keeping with the broader IDP vision?	The SDF vision is in line with the braoder IDP vision and the municipality must be appludewdfor a detailed structure shoeing how they arrived at the current SDF vision.	Achieved	123
25. Are the SDF objectives, strategies, programmes and projects in keeping	The objectives and strategies put forth are in line with the development vision and its spatial translation; however the SDF		

with the vision & IDP?	projects are not indicated.	Achieved	
26. Does the SDF set out redress the imbalances of the past?	Strategies are aimed at redressing past imbalances through e.g. rural service centres, interventions such as infill areas, etc.	Achieved	143
27. (a) Does the SDF provide appropriate strategic guidance in respect of the location and nature of development within the municipality? (b) Discuss the extent to which objectives strategies, programs as per (a) is shown in the SDF strategic mapping	The SDF discusses the nature and location of development; however the strategies and programs are not well presented on the mapping. It is recommended that strategies and programs be well presented in the maps.		
28. Does the SDF identify current and future significant structuring and restructuring elements of the spatial form of the municipality, including development corridors, activity spines and economic nodes where public and private investment will be prioritised and facilitated?	The SDF identifies the Urban Town, Urban Village Centre, Coastal Villa Centre as well as industrial node where investment is aspired.	Achieved	42-43
29. Does the SDF address Historic Spatial imbalances in development?	SDF focuses on making land available to the disadvantaged communities as well.	Achieved	
30. Does the SDF give effect to the development principles and applicable norms and standards set out in Chapter 2(7) of SPLUMA,	The municipal SDF is adhering to the SPLUMA norms and standards.		15

which include; • Principle of spatial justice; • Principle of spatial sustainability; • Principle of efficiency, • Principle of spatial resilience, • Principle of good administration			
31. Does the SDF align with the SDF reflected in the IDPS of the neighbouring municipalities?	The municipal SDF is aligned with neighbouring municipalities.	Achieved. Answered above	
32. Is there a sound and up to date economic analysis in the SDF, inclusive of estimates of economic activity and employment trends and locations in the municipal area for the next five years?	SDF outlines the economic analysis and trends but the estimates for the next five years are not articulated. It is recommended that the municipality in the next SDF review consider including estimates for the next five years.	Achieved	117-118
33. (a) Do the objectives strategies, programs and projects address the implications of the economic analysis? 34. (b) Discuss the extent to which objectives strategies, programs as per (a) is shown in the SDF strategic mapping	It is not quite clear how the objectives strategies, programs and projects address the implications of the economic analysis. In the next SDF review it is recommended that the SDF give more details on this aspect.	Needed to be addressed	118
35. Is there a sound and up to date demographic analysis in the SDF,	The municipal SDF shows the demographics of the area and the estimated population growths are demonstrated.		71-74

containing, including population growth estimates for the next five years?		Achieved	
36. (a) Do the objectives strategies, programs and projects address the implications of the demographic analysis? 37. (b) Discuss the extent to which objectives strategies, programs as per (a) is shown in the SDF strategic mapping	The strategies address the issue of service delivery and bulk infrastructure improvement; it is however not clear how these are relating to the implications of demographic analysis.		76
38. Include estimates of the demand for housing units across different socioeconomic categories and the planned location and density of future housing developments?	The SDF discusses the housing demand for each ward but the densities are not indicated in this regard. It is recommended that the SDF indicates the densities per ward.		76-78
39. Identify the designation of areas in which— a. more detailed local plans must be developed; and b. Shortened land use development procedures may be applicable and land use schemes may be so amended?	There is no evidence of areas in which land use schemes need to be amended or that require local area plans to be developed. Areas must be identified where more detailed local plans need to be developed, site-specific soil and vegetation surveys may need to be conducted for specific projects. Greater collaboration with DARD in this regard is recommended. SPLUMA requires this issue to be addressed through the review of the SDF documentation.		
40. Does the SDF spatially depict the coordination, alignment and integration of sectoral policies of all	There is no evidence of the alignment and integration of sectoral policies of municipal departments. SPLUMA requires this issue to		

municipal departments?	be addressed through the review of the SDF documentation.		
41. Determine the purpose, desired impact and structure of the Scheme to apply in that municipal area?	The municipal SDF is said to provide the direction for expansion of specific land uses and the land use scheme is the regulatory instrument of land use and land development in the municipality.		
42. Include an implementation plan comprising of: a. sectorial requirements, including budgets and resources for implementation; b. necessary amendments to scheme/schemes; 43. c. specification of institutional arrangements necessary for implementation; d. specification of implementation targets, including dates and monitoring indicators; and e. Specification, where necessary, of any arrangements for partnerships in the implementation process?	SPLUMA requires this issue to be addressed through the review of the SDF documentation.		
44. SECTION 4: MINIMUM REQUIREMENTS BUDGET ALIGNEMENT		45.	46.
47. Is there evidence of good alignment between the SDF and the Capital	The alignment is mentioned in the Background section; however, there is no evidence of alignment between the SDF and the municipal Capital Budget in the latter sections of the		

Budget of the Municipality?	SDF. It is recommended that the SDF include evidence of alignment between the SDF and the municipal Capital Budget in the next review.		
48. Is the three year MTEF / capital expenditure framework for the municipality's development programmes, depicted spatially; ?(SPLUMA 4:21(n))	There is no evidence of the municipal capital expenditure framework being depicted on the SDF. In the next SDF review, the SDF needs to consider this aspect.		
49. Are the budgets of sector departments reflected spatially on the SDF /CIP Maps?	The SDF does not reflect any Budgets for municipal sector departments. In the next SDF review, the SDF needs to consider this aspect.		
50. SECTION 5: Minimum requirements FOR THE ALIGNMENT OF PROVINCIAL SPATIAL POLICY AND		51.	52.
53. Does the SDF take into account Provincial spatial planning guidelines 1 to 9?	The municipal SDF adheres to the Provincial Spatial Planning guidelines.		
1. Is the SDF aligned with District Municipal and Local Municipalities in relation to: a. Cross Border SDF Planning b. The Millennium Development Goals; c. Climate Change Focus areas; d. The 2015 State of the Nation Address; e. The 2015 State of the Province Address; f. National Development Plan	Alignment issue are discussed in the SDF, all policies are adhered to adequately.		

g. The Provincial Growth and Development Strategy of 2011; and			
h. Outcomes 9, 13 and 16			

24 conclusion

This document represents the outcomes of Phase 4 and 5 of the Development of the Spatial Development Framework for Mandeni Municipality, and in addition to the Status Quo Report, contains strategies for spatial reconstruction of the Municipality and direction of future growth within the municipality. The information contained in this report is subject to amendment from stakeholders following perusal of the document.

The information presented in this document should be verified by the Mandeni Municipality to ensure that the analyses in the subsequent phases are based on valid and reliable information.

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