Spatial Development Framework

2018 Review

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Table of Contents

EXECUTIVE SUMMARY 5
1. INTRODUCTION 10
1.1 Purpose of The Report 10
1.2 Study Area 11
2 POLICY CONTEXT & VISION DIRECTIVES 13
2.1 THE MUNICIPAL SPATIAL DEVELOPMENT FRAMEWORK 13
2.2. STATUTORY STATUS OF THE SPATIAL DEVELOPMENT FRAMEWORK 13
2.3 NATIONAL POLICY CONTEXT: THE NATIONAL DEVELOPMENT PLAN 2030 (NDP) 13
2.4 PROVINCIAL POLICY CONTEXT 14
2.5 EASTERN CAPE PROVINCIAL SDF (PSDF) 14
3 THE REGIONAL CONTEXT 16
3.1 Overview 16
3.2 Chris Hani SDF and Regional Economic Development Strategy. 16
4. THE EMALAHLENI IDP 19
4.1 Emalahleni Municipality's Vision, Mission And Values 19
4.2 Strategic Objectives In The Emalahleni IDP 19
4.3 Objectives & Strategies In The Emalahleni IDP 19
4.4 Spatial Distribution of Projects and Community Needs in the Emalahleni LM IDP 21
5. PHYSICAL CHARACHTERISTICS 26
5.1 Topography And Drainage 26
5.2 Climate 26
5.3 Rainfall And Evaporation 26
5.4 Soils And Erosion 27
5.5 Geology 27

5.6 Vegetation 28
5.7 Land Capability 28
5.8 Environmental Informants 29
5.9 Eastern Cape Biodiversity Conservation Plan (ECBCP) 30
5.10 Land Cover 31
6. SERVICES INFRASTRUCTURE 33
6.1 Water And Sanitation Backlogs 33
6.2 Eradication Of Backlogs 33
6.3 Roads and Infrastructure 35
6.4 Railway Network 35
6.5 Airports/Airstrips 35
6.6 Public Transport 35
6.7 Electrical Networks 36
6.8 Refuse Removal / Waste Management 36
6.9 CEMETERIES 37
6.10 Social Facilities 37
7. DEMOGRAPHIC PROFILE 40
7.1 Population Distribution 40
7.2 Rural Vs Urban 40
7.3 Migration 40
7.4 Gender and Age Break Down 40
7.5 Levels of Education 41
7.6 Functional literacy 41
8. SOCIO ECONOMIC PROFILE 43
8.1 Household Income 43
8.2 Employment 43
8.3 Poverty 43

8.4 Social Grants 44
9. ECONOMIC PROFILE 45
9.1 Emalahleni's Contribution To The National Economy 45
9.2 Gross Value Added 46
9.3 Economic Sector Analysis 47
10. ECONOMIC SECTOR ANALYSIS 49
10.1 Agriculture Potential 49
10.2 Mining Potential 52
10.3 Tourism 53
11. SPATIAL ELEMENTS 56
11.1 Land Use 57
11.2 Land Ownership 64
11.3 Land Claims 68
11.4 Housing 69
11.5 LOCAL SPATIAL DEVELOPMENT PLANNING INITIATIVES 70
12. INSTITUTIONAL ASPECTS REGARDING SPATIAL PLANNING 74
12.1 Emalahleni Local Municipality: Human Resources and Technical Capabilities 74
13. SUMMARY: KEY SPATIAL DEVELOPMENT PLANNING INFORMANTS 75
14 CONCLUSIONS: KEY SPATIAL DEVELOPMENT ISSUES 81
15 SPATIAL PROPOSALS 82
15.1 Introduction: A Strategic Framework For the SDF 82
15.2 Emalahleni Municipality's Vision, Mission And Values 82
15.3 Objectives and Strategies In Relation to the Key Issues 82
15.4 Proposed Spatial Development Objectives and Strategies. 83
15.5 Spatial Strategies and Related Structuring Elements 84
15.6 Development Nodes of Importance 85
15.7 Development Routes and Corridor 91

15.8 Settlement Hierarchy: Peri-urban/rural settlement typology 92
15.9 ENVIRONMENTAL CONSERVATION AREAS 96
Environmental conservation AREAS (Continued) 97
15.10 Strategic Development Areas 98
15.11 Overall Spatial Development Framework 103
15.12 Environmental Elements 104
16 IMPLEMENTATION PLAN AND PROGRAMME 106
16.1 The Challenge Of Implementation 106
16.2 KEY ACTIONS AND PROJECTS 110
16.3 Monitoring Of Implementation 112
16.4 Conclusion: Future Reviews 112
17 REFERENCES 113

EXECUTIVE SUMMARY

Purpose of the Report

This document serves to review and update the 2012 -2017 Emalahleni SDF Review Document and incorporate the development priorities of the latest 2017-2022 Emalahleni IDP. The following changes have been made to the 2012 -2017 Emalahleni SDF Review document.

- Changes required to reflect new development priorities, as determined in the revised Emalahleni LM Integrated Development Plan (2017-2022);
- Updating of plans to reflect the changes in ward boundaries, as promulgated in 2016 and includes updated data, where available.
- Incorporation of the Spatial Plans and Proposals prepared in the Xonxa and Vaalbank Areas

Overview

The Emalahleni Local Municipality (Category B municipality), is situated in the north-eastern part of the Chris Hani District Municipality in the Eastern Cape. It is one of six municipalities in the district. Komani (former Queenstown) is the main administrative and economic centre in the district, with the main concentration of activity in the commercial, manufacturing, and services sectors. The smaller towns in the district remain important service centres for the supply of retail goods and services to the local populace.

Emalahleni, with an estimated population of 125 000 people (2016) is comprised of 3 Rural Towns, namely; Indwe, Dordrecht and Cacadu Town (formerly known as Lady Frere), and approximately 238 rural settlement areas. Emalahleni accommodates approximately 15 % of the District Population and was ranked the most populous municipality in the district in 2016. Cacadu Town, the administrative seat of the Emalahleni Municipal Area, is centrally situated along the R359 route between Indwe and Komani. Dordrecht and Indwe are strategically located on the regional R56 Route.

Spatial Development Concept

At a district level, Emalahleni (Primary Urban Development Node) is recognised as a sub-district centre and at a municipal level, as an administrative centre, providing municipal scale services for commercial and social goods and services. Emalahleni functions as a residential development area for middle/low income housing and is recognised for value adding agro-industrial processes and event-related tourism potential. (CHDM IDP 2017-2022).

Emalahleni is characterised by dispersed rural settlements with densification of settlement occurring in an un-planned and un-managed pattern, especially along major transport routes serving the area.

Emalahleni's direct access to Komani via the R359, provides opportunity for trade and industry and access to strategic markets in the province. It is key that major routes (proposed development corridors) are upgraded and maintained to facilitate access between key economic towns (development nodes).

The smaller towns of Indwe and Dordrecht (Secondary Urban Development Nodes) provide a rural service centre function to surrounding rural areas. Mining potential in Indwe provides opportunity for Indwe to be formalised to support this activity.

Urban management in all three towns is important to support future plans for growth.

Infrastructure in the town for both basic and higher order services needs to be managed and extended to support residents and businesses operating there.

Vaalbanks and Xonxa (Rural Service Nodes), located in the South Western and Southern portion of the Emalahleni Municipal area, are recognised as minor administrative centres and function as a minor service centres for social goods and services. These areas are earmarked for focussed support of agriculture-based local economic initiatives. Local Spatial Development Planning is being undertaken in these areas.

The smaller rural settlements, namely; Cumakala, Machubeni, Ndonga are recognized as Rural Service Nodes

Vision and Mission Statement

"A municipality that delivers appropriate, sustainable and affordable services towards socio-economic growth for the development of its community."

In support of the vision, the following Development Priorities are identified in the Emalahleni's IDP (2017-22)

- *To provide, improve and maintain infrastructure and basic services to local communities and or households by June 2022.*
- *To ensure development and implementation of improved systems of communication, public participation and good governance in line with applicable laws and regulations by June 2022.*
- *To ensure effective implementation and monitoring of municipal systems to achieve clean administration.*
- *Improve financial viability of the municipality.*
- *To promote, facilitate and improve sustainable local economic development through local economic programmes by June 2022.*

Summary: Key Spatial Planning Informants

The following conclusions are drawn from the analysis in relation to the assessment of the natural and built environment in the Emalahleni area. This section includes Key Spatial Development Planning Informants cited in the ELM IDP 2017-2022 and the former ELM Spatial Development Framework Plan 2013-2017.

BIOPHYSICAL ELEMENTS	
CHALLENGES	RECOMMENDATIONS
❑ Potential threat of drought conditions and high evaporation levels is a constraint to agricultural/crop production. High rainfall in the northern area of the LM favours crop production. The northern areas are classified high priority conservation areas and are limited to stock and game farming practices. ❑ Sandy loam soils favourable for crop production are found in areas south of Indwe, however prevalence of highly erodible claypan /mudstone soils dominate the central and southern parts of the area and necessitates wise land use management and appropriate farming/ grazing practise. ❑ Degradation of land and loss of potential arable land is of environmental and economic concern. Inappropriate farming practise / overgrazing is a significant contributing factor to widespread land degradation and soil erosion in the study area. 49 % of land coverage is Vulnerable Tsomo Grassland necessitating careful land-use practise and conservation planning	➢ *Appropriate farming/grazing practise is required to protect the land from further degradation. This will require **farming support programmes** and implementation of necessary infrastructure to improve farming practise.* ➢ *Prevalence of Vulnerable Tsomo Grassland in the north and south necessitates **careful land use management and conservation practise.*** ➢ ***Localized spatial planning** is necessary to guide strategically targeted areas for specific agricultural initiatives.* ➢ *Management of un-planned and un-managed rural settlement growth is critical to limit further encroachment and degradation of valuable lands for agriculture.*
OPPORTUNITIES	RECOMMENDATIONS
❑ Potential for dry land crop production due to existing irrigation schemes/infrastructure in the vicinity of Xonxa, Macubeni and Lubisi Dams. ❑ Maize and Sorghum production potential is highest in the Eastern part of the study area which corresponds with highest rainfall patterns in the area and good sandy loam soils dominant in the central and southern areas (around Cacadu Town) and in the vicinity of the Xonxa Irrigation Scheme ❑ The extent of unimproved grassland is good for potential livestock production (sheep/cattle), especially in the central and northern parts of the LM. In terms of Grazing Capacity (LSU/hectare), beef cattle farming is favoured in the central and south western areas. The south and south western areas are limited to forestry and livestock farming. ❑ Land capability plans support limited crop production (Class 4) in the North East. The presence of Tsomo Grassland in this area, necessities wise land use and conservation planning in this area.	➢ *Xonxa Irrigation Scheme in the southern portion of the study area is the subject of a **revitalization programme for the Dept of Agriculture**. This could increase crop production potential of the area, especially in the south where dry land arable crop production is favourable.* ***Augmentation and management of irrigation schemes** (Xonxa, Machubeni, Doring River) to support crop production is required*
SOCIO ECONOMIC ELEMENTS	
CHALLENGES	RECOMMENDATIONS
❑ Two thirds of the population live in poverty. The economically active youth unemployment rate is 55 %. A quarter of the population have no formal education. 64 % of the population are (< 15 yrs and > 65 yrs old) do not contribute to the economy. ❑ This places a burden on the state to provide social support grants to these areas, with the risk of ongoing dependency on state for support. ❑ Low spending power and skills base is a major constraint to economic and social development in the area.	➢ *Access to education programmes, schools and related infrastructure is imperative to increasing literacy levels and competency to meaningfully contribute to economy.* ➢ *Numerous ECD centres are located in the 3 towns. Priority should be given to upgrading and facilitating ECD centres to support ECD Programmes.* ➢ *Consideration and possible prioritization of upgrading and resourcing the Agricultural Schools in the area and other education institutions.* ➢ *Poverty in Emalahleni needs to be understood at the community level to ensure appropriate development and prioritisation of funding with focussed attention to rural areas. The expressed need and local knowledge can guide development investment decisions best suited to the area*
OPPORTUNITIES	
❑ There are numerous Early Childhood Development and Agricultural Schools offer education opportunities to empower youth to meaningfully contribute to the economic potential that the agricultural sector offers Emalahleni. Resourcing and upgrading these schools is an expressed need of the communities	
RURAL DEVELOPMENT AND LAND TENURE	
❑ Rural areas are under-developed and characterised by a fragmented settlement pattern. ❑ Communally owned land or land held by Tribal Authority can hamper development as it discourages investment potential on land where formal title is absent. ❑ LSD Planning Initiatives at Vaalbank and Xonxa provide opportunity for strategic investment into the area	❖ *Issues related to land tenure need to be addressed so that identified priority projects are not hampered. A Local Planning process is required to clarify land use rights and to formalise the layout of the relevant area*

ECONOMIC SECTORS	RECOMMENDATIONS
CHALLENGES	
❑ The community sector (Government services) contributes 50 % to Emalahleni's GVA, highlighting the lack of diversity in the economy. ❑ The Agricultural Sector is prone to very high volatility as a result of uncertain weather conditions, pests and other natural causes which are not considered in forecasts, with farming largely practised on a subsistence basis and not for the formal market economy ❑ Limited human resource capacity/literacy levels and lack of necessary farming infrastructure limits the growth of the agricultural sector. ❑ Un-managed and un-planned land use and settlement development in rural areas outside of the town jurisdictions is a threat to the sustainable use of resources that are key to the economic development of Emalahleni, specifically in the agricultural and tourism sectors	➢ *Critical attention needs to be given to the conservation of historical sites and the natural environment.* ➢ *Access and upgrading of roads and supply of both basic and higher order infrastructure and service provision to support the potential growth of the tourism sector is critical (e.g. health and safety facilities at tourism nodes.)* ➢ *Development initiatives in the area must focus on the people and their skills and abilities to learn.* ➢ *Projects must be identified that make use of local knowledge and related skills inputs must be provided. This may require interventions from outside agencies / departments to provide the appropriate support.*
OPPORTUNITIES	
❑ Clay deposits in the north eastern part of the study area offer mining potential and for development of clay brick making industry in Dordrecht and Indwe ❑ Coal deposits in the central and north eastern area of Emalahleni around Indwe, offer potential for mining extraction. ❑ Proposed re-opening of the railway line from Dordrecht to Indwe / Sterkstroom will be an advantage to access markets and processing plants of mining export products. ❑ A sorghum production programme has been developed to provided adequate raw materials to the milling plant ❑ The proximity of Komani (former Queenstown), the main administrative and economic centre in the District, provides opportunity as a market for the export of local agricultural product for sale and processing there. ❑ Secondary Sector: Trade and retail is the second largest contributor to Emalahleni's GVA, focussed in the towns of Indwe, Dordrecht and Cacadu Town (formerly known as Lady Frere) ❑ The area boasts Heritage, Eco- and farm-stay tourism in the area. The Ndondo Liberation Route follows the R356 through Cacadu Town along which significant historical sites are located.	
BUILT ENVIRONMENT	
LAND AND SETTLEMENT	
CHALLENGES	**RECOMMENDATIONS**
❑ 3 % of the land is urban built up land and accommodates 18 % of the population in the towns of Indwe, Dordrecht and Cacadu Town. The remaining 82 % of the population reside in 235 dispersed low density rural settlements in the LM. ❑ In-migration is occurring in the towns and little or no in-migration is taking place in the rural settlements. This places pressure on demand for goods and services and infrastructure provision in urban centres ❑ Jurisdictional uncertainty over land use management authority in areas outside of Cacadu Town (Former Lady Frere) town commonage appears to be resulting in unmanaged / unplanned settlement development, especially in areas along transport routes, and impacts on the effective use of these routes for transportation of goods and people. ❑ Un-managed and un-planned settlement is a threat to the sustainable use of natural resources in rural areas outside of the towns. Competition for resources in rural settlement areas (residential, cultivation and free-range grazing) places pressure on land and existing resources. ❑ Water and sanitation backlogs remains critical, especially in the south and western rural settlement areas. ❑ Un-planned and un-managed settlement growth in rural areas renders service and infrastructure delivery costly and unsustainable ❑ Suspended housing and rectification projects are evident in the towns of Emalahleni hampering housing delivery.	➢ *Rural development strategies necessary.* ➢ *The community's priority for accessibility/ease of movement and also access to water to support their subsistence base farming lifestyle is evident.* ➢ *This supports the densification and planning of settlement along major transport routes and towns, and is cost-saving for concentrated service and infrastructure delivery* ➢ *The eradication of backlogs in the provision of basic services in the worst off rural settlement areas remains a priority.* ➢ *A sound planning framework and a clear system of land use management is essential to improve the sustainable provision of infrastructure in urban and rural areas.*
OPPORTUNITIES	
❖ The Chris Hani Cluster Eradication Programme is focussed on addressing water and sanitation backlogs, throughout the study area. ❖ The majority of the population are housed in formal or traditional structures with low levels of "homelessness" /shack development	

Key Spatial Development Issues

The following key spatial development issues are drawn from the summary key planning informants, and are highlighted as follows: -

- Focussed strategic development and planning must not be done in isolation of **local need** and should be **guided by local knowledge and the lifestyle practices** inherent to the communities living there.
- For under-developed rural areas, **the importance of linkages and accessibility** to areas of opportunity is fundamental.
- **Fragmentation of jurisdiction over land management functions in urban and rural areas.** There is a lack of formal control over the majority of the land area of Emalahleni LM, outside of the proclaimed town areas.
- **Inefficient Urban and Rural Settlement Patterns vs Providing Services to Meet Basic Needs**. Low density dispersed rural settlement patterns renders service provision costly and inefficient. This necessitates strategic approaches in dealing with the difficulties posed by the sprawling, low density settlement patterns found in the area as well as the lack of local productive economies to provide residents with the means to contribute toward the cost of provision.
- Given the importance of the natural environment in the development of the Emalahleni space economy, **implementing environmental management (wise land use)** becomes critical to ensuring the sustainable use of the available resources and natural endowments (i.e. the natural environment, agricultural lands, residential settlement, etc.).

Spatial Proposals and Spatial Development Concept

The following key characteristics, spatial structuring elements and related spatial proposals are defined to guide future spatial planning in the Emalahleni Local Municipal area.

a) The **R393 route is the central east-west corridor** linking the main Urban Development Node of Cacadu Town (formerly known as Lady Frere) with the District Centre of Queenstown and neighbouring LMs such as Sakhisizwe (Cala, Elliot).

b) To the **north of the R393**, the most important development potentials are seen to fall into the following **Primary sectors**: -
   - **Mining** – specifically, coal mining – in the area to the north of Cacadu Town (Formerly known as Lady Frere) and, more especially, in the land areas around Indwe;
   - **Agriculture** – specifically livestock farming – where sheep are currently the main stock category and wool improvement schemes appear to be an important initiative that need to be further pursued in a more consultative, culturally-led methodology. The main rural nodes in this regard are, Machubeni, Cumakala and Ndonga.

c) To the **south of the R393**, the presence of lands with **irrigation potential** and current programme activities indicate that the main sector of potential development activity there lies in **agriculture** – specifically, crop cultivation (sorghum). The main rural nodes in this area are Xonxa, Vaalbanks and Lubisi areas.

d) **Rural Settlement Strategic Investment Areas:** Vaalbank and Xonxa, where Strategic Local Spatial Framework Planning has been undertaken.

e) **North-south linkages** are seen to be important future linkages and Municipal Acticity-Linking Corridors are proposed radiating out from Cacadu Town (formerly known as Lady Frere), running north/north-eastward to Machubeni and Indwe, north-westward to Vaalbanks, to the south to Xonxa (and beyond to the R61 district distributor route) and to the east to Ngonga.

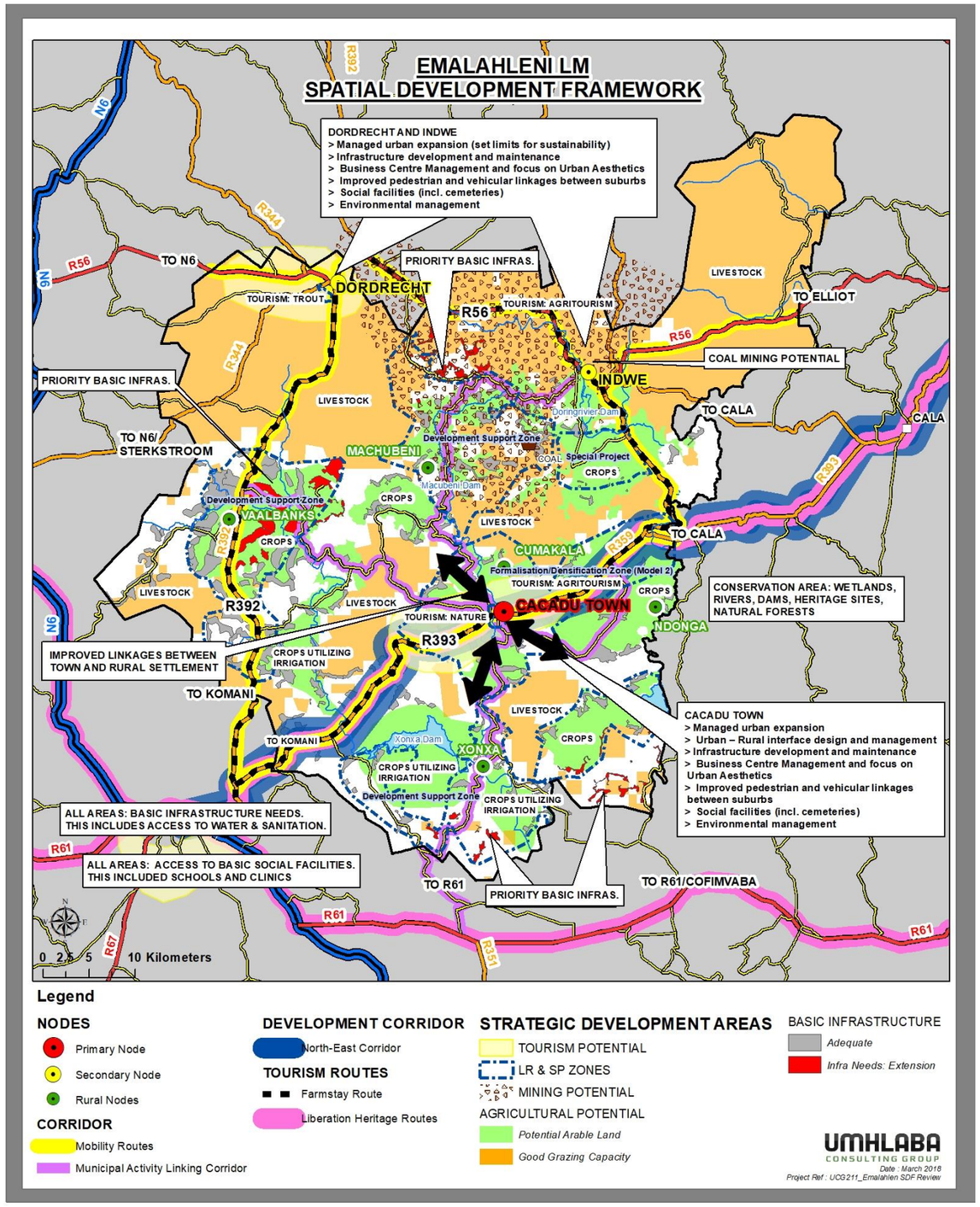
f) **Tourism Route: The Ndondo Liberation Route and Farmstay Route**

g) **No go Develoment Areas** - Critically Biodiverse Areas CBA 1 and CBA 2, where land is protected and development of land is prohibited or restricted subject to Environmental Impact Assessments.

These proposals and development priorities are presented in the Table and Plan following:

Proposed Development Nodes and Movement Corridors

NODE	NAME	ROLE	SPATIAL DEVELOPMENT PRIORITIES
PRIMARY URBAN DEVELOPMENT NODE (Sub-District Service Centre)	CACADU TOWN (Formerly known as Lady Frere)	❑ Main Retail, Commercial, Industrial & Administration (Govern. Services) Node ❑ Main Centre for Social Services ❑ Residential Function for permanent and temporary residents ❑ Potential for agro-industrial processes ❑ Promote diversity of tourism: leisure, heritage ❑ Key linkage to Komani (Queenstown) – Main regional centre in the District.	▪ Managed urban expansion and Public Funded Housing Expansion ▪ Urban – Rural interface design and management ▪ Infrastructure development and maintenance to support businesses and residential property ▪ Business Centre Management and focus on Urban Aesthetics ▪ Improved pedestrian and vehicular linkages between suburbs in town and between towns (key economic towns/nodes). Prioritise linkage to higher order nodes. ▪ Social facilities: Focus on Education/Health and ECDC's, cemeteries. ▪ Environmental management and conservation
SECONDARY URBAN DEVELOPMENT NODES (Local Service Centres)	DORDRECHT & INDWE	❑ Local-scale retail, industrial and administration nodes ❑ Service centres to rural areas ❑ Cater for permanent and temporary residents ❑ Potential for value- ❑ adding agro-industrial mining processes ❑ Potential for tourism services and facilities	▪ Managed urban expansion and Public Funded Housing Expansion ▪ Infrastructure development to support business, tourism and residential expansion potential ▪ Business Centre Management and focus on Urban Aesthetics ▪ Improved pedestrian and vehicular linkages between suburbs in town ▪ Social facilities: Focus on Education/Health and ECDC's, cemeteries/agricultural schools. ▪ Environmental management and conservation
RURAL NODES (Sub-Local Service Centres)	VAALBANKS, XONXA, NDONGA, MACHUBENI, CUMAKALA	❑ Commercial and Social Facilities serving surrounding rural areas	▪ Basic level of service provision and extension ▪ Augmentation and upgrade of existing commercial / agricultural infrastructure ▪ Local planning to maximise use of resources ▪ Appropriate land use management and Administration: Local land use schemes to be negotiated. ▪ Environmental Management is critical ▪ Community engagement: participatory planning and project programmes
Rural Settlements	ALL OTHER RURAL SETTLEMENT	❑ Providing residents with necessary infrastructure and services	▪ Ensure proper access to higher order nodes to access higher order services and facilities ▪ Ensure necessary basic services, infrastructure and social facilities. ▪ Planned settlement edges for expansion ▪ Environmental Management is critical
Mobility Routes	❑ R393 (Queenstown –Cacadu Town – Cala) ❑ R392 (Dordrecht – Queenstown) ❑ R56 (N6 – Dordrecht –Indwe –Elliot)		▪ These routes carry passing traffic and provide access between local areas in Emalahleni and centres further afield. ▪ Spatial Planning Priority is to manage settlement development along the Primary and Secondary Movement corridors to mitigate impacts of settlement on the road
Municipal Activity/ link Corridor	❑ Vaal Banks –Cacadu Town (former - Lady Frere) ❑ Cacadu Town –Xonxa –R61 ❑ Cacadu Town – Machubeni –Indwe ❑ Cacadu Town -Zingqolweni		▪ Linking areas of development potential to Movement Corridors and Urban centres
Development Corridor	❑ North -East Corridor		▪ Corridor of district and municipal-level economic importance
Special Routes (Tourism)	❑ Farm-stay Route (Queenstown –Dordrecht- Indwe – Cacadu Town (former Lady Frere)–Queenstown) ❑ Liberation Route (R393)		▪ Routes of District and Regional Economic Importance. ▪ Upgrade and Improve accessibility to promote tourism potential / initiatives in the area



1. INTRODUCTION

The Emalahleni Local Municipality appointed Umhlaba Consulting Group (Pty) Ltd in 'December 2017, to assist the Municipality to review and compile a new SDF for its area of jurisdiction as a legally binding component of the Emalahleni Integrated Development Plan (IDP: 2017 -2022).

In order to ensure that the Emalahleni SDF is credible, comprehensive and purposeful, as well as strategic in nature, showing a clear direction for growth and responding to the need for integrated and sustainable development, the Guidelines produced by the Department of Rural Development and Land Reform will be used as a guideline.

The SDF is to be formulated in compliance with the requirements of Section 26(e) of the Municipal Systems Act (Act 32 of 2000), the Municipal Planning & Performance Management Regulations (R796/2001) and the Spatial Planning and Land Use Management Act, 2013. In addition to giving clear and specific direction with regards to rural development issues, the SDF should provide a sound platform from which to develop and implement an effective Land Use Management System within the Municipality's area of jurisdiction and, accordingly, clear guidelines to inform land use management are key outputs of the project

In 2016 the Emalahleni 2017-2022 IDP was adopted. This document serves to review and update the 2012 -2017 Emalahleni SDF Review Document and incorporate the development priorities of the latest 2017-2022 Emalahleni IDP.

***Demarcation Boundary**: A new demarcation boundary for Emalahleni Local Municipality was promulgated in 2016, in terms of the Local Government Municipal Demarcations Act 27 of 1998 as amended by the Local Government Laws Amendment Act 51 of 2002. The new boundary adjustments have been applied in the spatial plans presented in this document.*

The Geographic Area of the new Municipal Boundary has increased marginally (Refer to Plan 1.1) and as the 2011 Census, remains the official data base for analysis, the new boundary reflects little change to the analysis in this report.

The following changes have been made to the 2012 -2017 Emalahleni SDF Review document.

- *Changes required to reflect new development priorities, as determined in the revised Integrated Development Plan (2017-2022);*
- *Updating of plans to reflect the changes in ward boundaries and included updated data, where available.*
- ***"Lady Frere"** town's name has changed and is accordingly referred to the new name **"Cacadu Town"** in the document.*
- *Incorporation of the Spatial Plans and Proposals prepared in the Xonxa and Vaalbank Areas*

1.1 PURPOSE OF THE REPORT

The Spatial Development Framework covers the entire area of jurisdiction of the Emalahleni Municipal Area.

In accordance with the SDF planning process guidelines, this SDF document is intended to guide overall spatial distribution of current and future desirable development in order to give effect to the vision, goals and objectives of the Emalahleni IDP (2017 – 2022).

Upon review and consultation with the Relevant Municipal Structures and feedback from public forums, the final SDF document is set out to include the following:

- An interpretation in spatial terms of the key needs and responding programmes as set out in the IDP;
- Conclusions as to the main requirements of the SDF so as to ensure that it becomes a useful tool in assisting the Emalahleni Municipality and other role players in development facilitation to use the available assets and resources provided by the natural and built environments in Emalahleni wisely and sustainably to meet the development needs of the people who live in the area.
- An overview and an interpretation of relevant information on the spatial features and characteristics of the natural and built environments found in the Emalahleni Municipal area, including: -

- A consideration of the Emalahleni Municipal area's regional context;
- A discussion on the demographic and socio-economic characteristics of the Emalahleni community;
- An understanding of settlement in the study area (settlement pattern, patterns of land ownership and land use patterns) in urban and rural areas.
- Spatial information on the provision of roads and civil services infrastructure and the implications of this;
- A brief discussion of environmental features of the area and the considerations raised by these; and
- Analysis leading to the identification of Key Spatial Development Planning Informants: Challenges, opportunities and recommendations that will lead to strategic proposals to guide spatial planning and development in Emalahleni.

- The desired spatial form proposed for the Emalahleni Municipality and, associated with this, Spatial Goals, Objectives & Strategies and any relevant Policies to be pursued in realising the future vision for spatial development in the area, made up of: -
  - A recap of the Key Spatial Development Issues identified in the Analysis phase;
  - The proposed Objectives, Strategies and Policies set in response to the identified Key Issues; and
  - The proposed Spatial Structuring Elements comprising the proposed Development Pattern and related Policies/preferred Spatial Development Outcomes.
  - Basic strategies to implement the proposals of the SDF as well as to outline any specific projects and/or programmes that are seen as important to advance spatial planning, land use management and land development processes in Emalahleni. This includes Land Use Management Guidelines that are intended to guide the activities of the Emalahleni Municipality in managing spatial development as well as relevant roles and responsibilities of the Municipality.

1.2 STUDY AREA

This report will address the spatial dimensions of development across the entire Emalahleni municipal area.

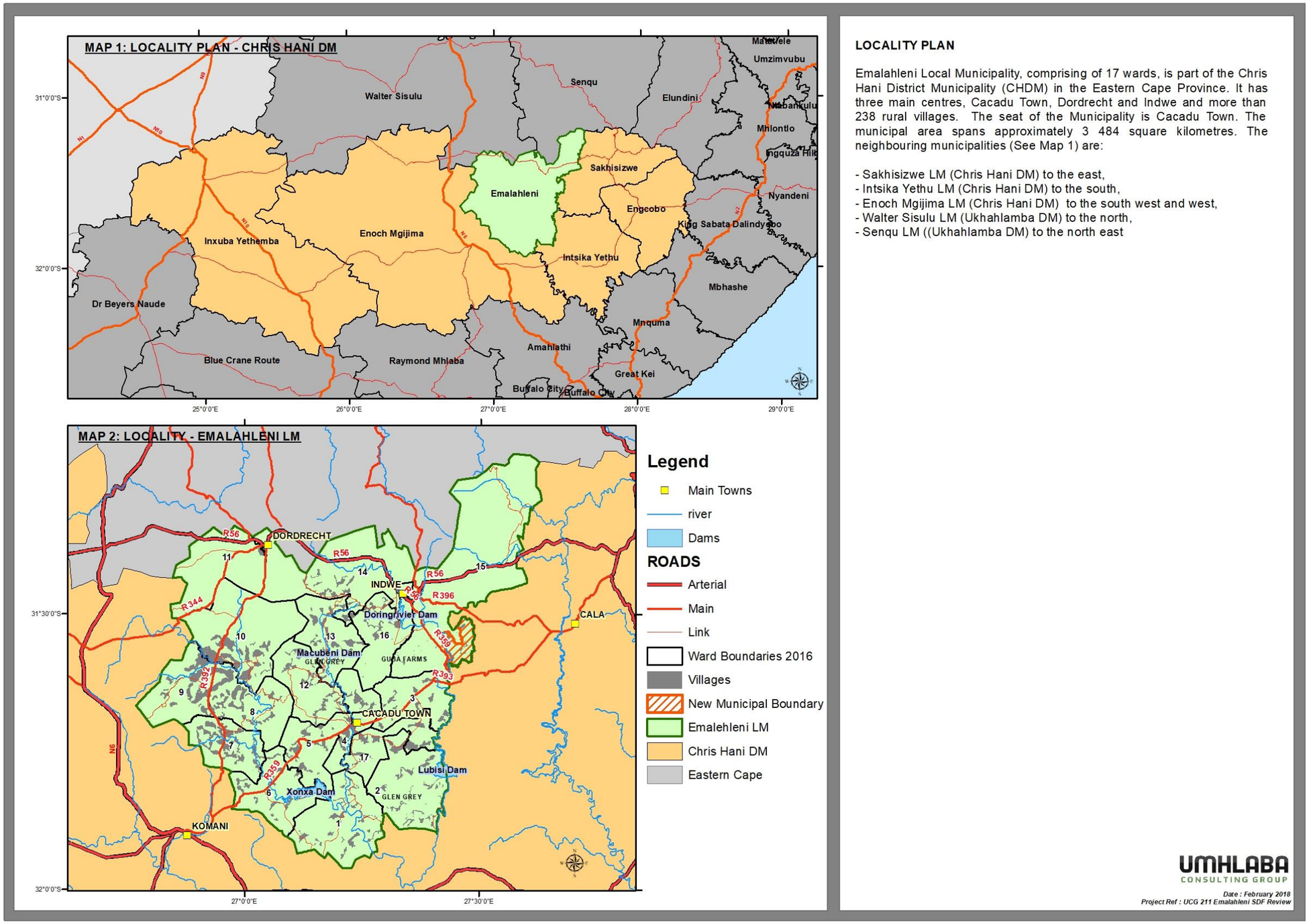
***Demarcation Boundary**: The new demarcation boundary for Emalahleni Local Municipality was promulgated in 2016, in terms of the Local Government Municipal Demarcations Act 27 of 1998 as amended by the Local Government Laws Amendment Act 51 of 2002. The new boundary adjustments have been applied in the spatial plans presented in this document.*

The Geographic Area of the new Municipal Boundary has increased marginally from 3,440 km² to 3,484 km² in extent and is comprised of 17 wards, which form the geographic basis for political representation in the Emalahleni Municipal Council.

The Municipal area, located in the Chris Hani District has three urban settlements, the small towns of Cacadu Town (formerly known as Lady Frere and is the administrative seat of Emalahleni Municipality), Dordrecht and Indwe, but is largely rural in nature, having the majority of its population reside in some 238 rural settlements.

Refer to Plan No. 1.1/… overleaf.

Plan 1.1: Locality Plan



2 POLICY CONTEXT & VISION DIRECTIVES

This section provides a summary overview of key policy directives from the relevant strategic policy and legislative frameworks which currently constitutes the national, provincial and local planning agenda (Make use of Part 1.2 - 1.3). A short vision statement based on a synthesis of the key policy directives and the project objectives.

National Policy Objectives

- NDP 2030
- SPLUMA (Mandate and Principles)

Provincial Policy Objectives

- Provincial Mandate
- Provincial SDF

Local Policy Objectives (District/Municipal)

Draft Vision Statement

2.1 THE MUNICIPAL SPATIAL DEVELOPMENT FRAMEWORK

The Spatial Development Framework forms part of the Integrated Development Plans

- As is contemplated in Section 26 (e) of the Municipal Systems Act, the Spatial Development Framework forms part of the Municipality's Integrated Development Plan (IDP). It is also important to note the following additional purposes of the SDF:
- It should be a key element in the integration of development processes across sectors.
- It has a longer time horizon than an IDP and should therefore provide the consistent long-term spatial context for the IDP.
- It needs to set the spatial strategy for development in the Municipality

2.2. STATUTORY STATUS OF THE SPATIAL DEVELOPMENT FRAMEWORK

In terms of Section 35 (2) of the Municipal Systems Act, the Spatial Development Framework has statutory status (1) and overrides any other plan for the area or portions of a Municipality that may have been compiled previously and which is described in the Physical Planning Act (Act No. 125 of 1991).

This term means that the Spatial Development Framework's provisions are applicable in law and the Municipality and other public or private development agencies are bound to apply its provisions and/or principles when considering land development.

Such plans would include regional development plans, regional structure plans and more localised plans such as Urban Structure Plans. As such, the Spatial Development Framework becomes the principle instrument for forward planning and decision-making on land development in the Municipal area.

2.3 NATIONAL POLICY CONTEXT: THE NATIONAL DEVELOPMENT PLAN 2030 (NDP)

The National Development Plan 2030 (NDP) sets out government's long-term VISION and strategic approach to exercising it mandate, with the stated overall aim of eliminating poverty and reducing inequality by 2030. It also sets out its basic objectives and proposed actions in relation to what is perceived as South Africa's fundamental development challenges, from developing the economy and creating employment, to fighting corruption and achieving nation building and social cohesion.

Figure 2.1: Key Spatial Directive Chapters of the NDP

From a spatial development perspective, Chapter 8 of the NDP deals with transforming human settlement and the national space economy. Targets set out in this chapter include:

- more people living closer to their places of work;
- better quality public transport; and
- more jobs in close proximity to low income residential areas.

To achieve these targets the NDP advocates measures to prevent further development of housing in marginal places, increased urban densities to support public transport, incentivising economic activity in and adjacent to townships; and engaging the private sector in the gap housing market. Importantly, it also proposes embracing of a principle-led approach to planning (as opposed to past control-oriented planning).

Also, of importance to Emalahleni Municipality, Chapter 6 sets out specific targets and goals towards establishing a more inclusive rural economy through integrated rural development. The focus here is on increased investment in new agricultural technologies, research and the development of adaptation strategies for the protection of rural livelihoods and expansion of commercial agriculture.

2.4 PROVINCIAL POLICY CONTEXT

The PROVINCIAL MANDATE in terms of Section 5(2) of SPLUMA, Provincial planning is defined as being:

a) The compilation, approval and review of a provincial spatial development framework;

b) monitoring compliance by municipalities with this Act and provincial legislation in relation to the preparation, approval, review and implementation of land use management systems;

c) the planning by a province for the efficient and sustainable execution of its legislative and executive powers insofar as they relate to the development of land and the change of land use; and

d) the making and review of policies and laws necessary to implement provincial planning.

2.5 EASTERN CAPE PROVINCIAL SDF (PSDF)

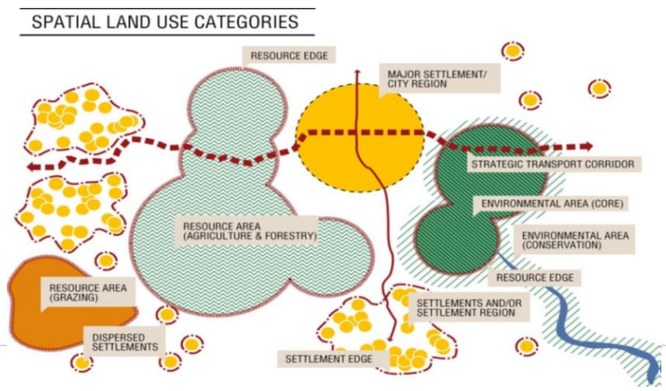
The Provincial Spatial Development Plan 2010 was intended to provide an indicative planning tool for all spheres of Government, whereby the Provincial Growth and Development Plan, Municipal IDPs and the National Spatial Development Perspectives, inform the identification of development potential and priorities in Government infrastructure investment and development spending within their respective areas of focus. The PSDP was conceptualised in the context of the Provincial Growth and Development Plan (PGDP) vision of a "poverty free Eastern Cape". Understanding that such a vision would be founded upon a concept of a "modern, ecologically sustainable economy based in agriculture, tourism and industry", the spatial perspective would comprise a spatial development framework of managed urban and rural human settlements clustered in settlement regions and corridors, alongside productive precincts, managed ecological natural resource areas; connected to a network of strategic transportation corridors open to the global, national and provincial economy.

In order to achieve the development philosophy and spatial development objectives and strategies of the PSDP, it proposed that all municipalities prepare spatial development frameworks (SDFs) on the basis of spatial guidelines, involving clear alignment between spatial plans prepared by all spheres of government, alignment of spatial plans and multi-sectoral planning.

The spatial planning management tools to achieve set development outcomes include:

- ‘Node’ – Proposed that the term node be less prominent and less significant in SDFs with the emphasis rather being placed on identifying mixed use areas within ‘human settlements’.
- ‘Urban edge’ – With the province being predominantly rural in nature, it proposed that it be applied as a ‘settlement edge’. More compact settlements and urban areas can be achieved with the maintenance of a settlement edge in order to discourage development sprawl.
- ‘Activity corridor’ - Proposed that use of the term ‘transport route’ to place emphasis on the transportation.
- ‘Focus area’ - Where strategic or special programmes and infrastructure investments are required based on inherent potential.
- ‘Transitional area’ - Where it is felt necessary to manage the interface and change from intensely developed built up areas to less densely developed and more rural areas;
- ‘Natural resource area’ – To enable effective management of environmentally sensitive areas, high potential agricultural zones and forestry areas.
- The spatial presentation of the application of the above tools is presented in Figure 2.2 below, with the overall Future Spatial Development Concept for the Central Region and Emalahleni LM, presented in Plan 2.1 and Figure 2.3 respectively.

Figure 2.2: Spatial presentation of the application of structuring tools



Plan 2.1: Future Spatial Development Concept for the Central Region

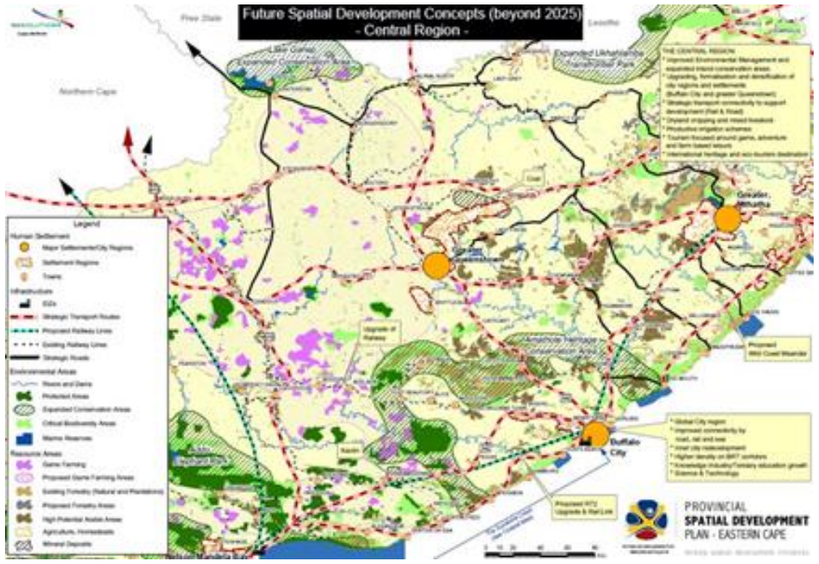
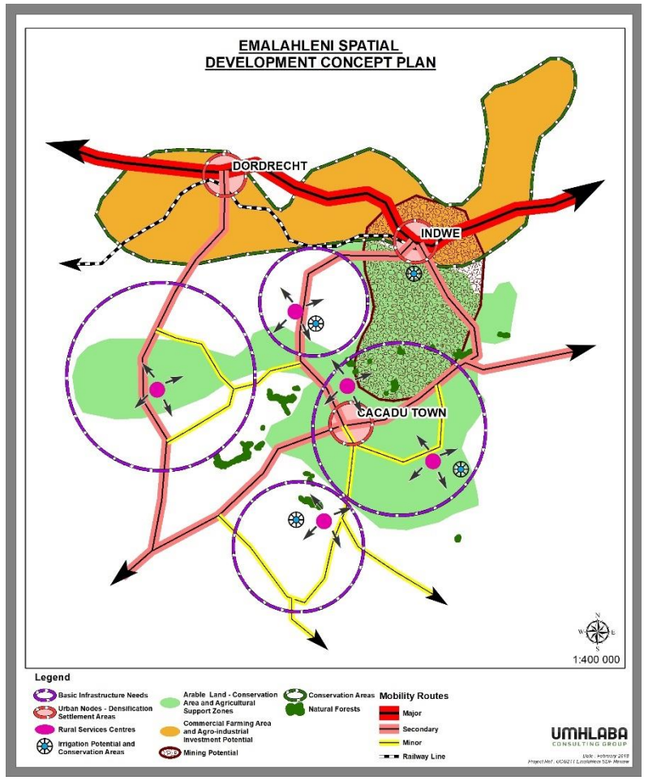


Figure 2.3: Emalahleni Spatial Development Concept Plan



3 THE REGIONAL CONTEXT

3.1 OVERVIEW

Chris Hani District Municipality is situated in the northern region of the Eastern Cape Province and covers a surface area of 36,756 Km2. It is estimated that the total population of the district in 2015 would reach 813 473 people, comprised of some 216 600 households. Only 35.2% of the district population live in areas classified as urban, while 63.8% live in predominantly rural areas.

The Chris Hani District may be defined as a largely land or primary production-based area, where the most important elements of the district economy are derived from state investment and from the consumption and production patterns of the resident population itself (CHDM SDF 2015).

From a spatial development perspective, it is clear that **the dominant area for economic activity in the district is the Enoch Mgijima Municipal area**, where Komani (former Queenstown) has the main concentration of activity in the commercial, manufacturing, and services sectors.

It is clear, too, that the **small towns in the district remain important as service centres** where the local populace can access retail goods and other services.

***Land Tenure and Ownership*:** The Chris Hani District Municipality comprises parts of the former Transkei and Ciskei homelands and CPA areas. The most common form of tenure in the former Transkei areas is the communal land tenure system. Ownership of land in the urban areas and former CPA areas is held by Free-hold Title Deeds. A considerable amount of land in the area of the former Transkei is still state – owned. This situation results in difficulty in obtaining land for developmental purposes. There have been calls by the communities for formal land tenure rights to gain tenure security.
It is envisaged that the Communal Land Rights Act (Act No. 11 of 2004) also known as CLARA will inform proposals for short term actions even though the Municipality will not be able to rely on its provisions until the Act comes into effect (Emalahleni Housing Sector Plan).

The **following economic sectors are the main contributors** to the Chris Hani District, and are ranked as follows: -

- Mining & Electricity- Low market share and slow-growing
- Services, Agriculture, Trade and Construction- High market share and fast-growing
- Manufacturing, Finance and Transport sector- Low market share and fast-growing:

The **Emalahleni Local Municipality (Category B municipality),** is situated in the north-eastern part of the Chris Hani District Municipality in the Eastern Cape. It is one of six municipalities in the district. Emalahleni is comprised of 3 Rural Towns (Indwe, Dordrecht and Cacadu Town) and approximately 238 rural settlement areas.
Dordrecht and Indwe are strategically located on the regional R56 Route and Cacadu Town, the administrative seat of the Emalahleni Municipal Area, is centrally situated along the R359 route between Indwe and Komani. The estimated population of Emalahleni for 2016 is 125 000 people and represents approximately 15 % of the District Population and was ranked as the most populous municipality in the district in 2016.

As part of the **CHDM's regional economic development strategy**, CHDM, the Department of Agriculture and Rural Development (DARD) and Emalahleni Local Municipality are involved in a Sorghum production programme, which aims to provide adequate raw material to a Milling Plant as part of a food production programme. Coal mining potential is recognized at Indwe and Molteno as well as clay brick making at Cacadu Town and Dordrecht. Emalahleni Municipal area boasts significant heritage sites which form part of the Chris Hani Tourism Heritage Route.

3.2 CHRIS HANI SDF AND REGIONAL ECONOMIC DEVELOPMENT STRATEGY.

Enoch Mgijima Municipality (Komani/Queenstown Area), is the dominant economic centre, where some 48% of the total Gross Domestic Product (GDP) of the district is produced. Within Enoch Mgijima LM, Komani (former Queenstown) remains the main concentration of activity in the commercial, manufacturing, and services sectors.

The small towns in the district remain important as service centres where the local populace can access retail goods and other services.

The CHDM Spatial Development Framework focuses on the strengthening of linkages between the different centres within the CHDM area and their relationship with centres outside the boundaries of CHDM. This led to the CHDM adopting the Small-Town Development Approach that is aimed at accelerating development through alignment of economic activities to ensure value chain addition. The Small Towns Development approach looks at the redesigning of the town layout with the aim of ensuring the potential of the space in and around the town are fully realised. The Chris Hani Regional Economic Development Strategy highlighted the need to identify and prioritise Small Towns along the economic corridors that have the potential to participate actively in the value chain of the differentiated sector and implement small town development initiatives.

The CHDM's view, aligned with the NDP 2030, is aimed at reducing Poverty and Inequality. CHDM's view is to shift the balance of spending towards programmes that help people improve their lives and those of their children and the communities they live in. The CHDM's IDP of 2017-2022 seeks to address these challenges and accordingly has formulated a Draft Vision and Mission statement as follows: -.

Vision: *"Leaders in sustainable economic growth and improved quality of life"*

Mission: *"To coordinate governance and quality service for vibrant communities"*

Values: **C**=Commitment, **H**=Humanity, **R**=Respect, **I**=Integrity, **S**=Sincerity, **H**=Honesty, **A**=Accountability, **N**=Nurturing, **I**=Innovative

Broad Strategic Objectives

To realize the vision, CHDM has developed 5 Broad Strategic Objective as aligned to the National Key Performance Areas (KPA's), as follows:

1. To *establish and maintain a skilled labour force guided by policies to function optimally towards the delivery of services to Communities.*
2. *To ensure provision of Municipal Health, Environmental Management and Basic Services in a well-structured, efficient and integrated manner.*
3. *To ensure development and implementation of regional economic strategies and effective Spatial Planning and Land Use Management approaches as drivers for economies of scale and social cohesion.*
4. *To Ensure an Effective, Efficient and Co-ordinated Financial Management that enables CHDM to deliver its mandate.*
5. *To create an Efficient, Effective, Accountable and Performance-oriented Administration.*

CHDM Development Perspective

Looking at economic development potential, the Chris Hani Regional Economic Development Strategy (REDS) has endorsed 4 specific clusters (or sectors) for prioritisation in the district, these being: (i) The Agricultural, Agro-Processing and Forestry Sector; (ii) The Manufacturing, Construction and Mining Sector; (iii) Tourism & Hospitality Sector; and (iv) The Services, Retail and Logistics Sector.

The REDS process has emphasised, however, that the sector that is perceived to present the greatest opportunity to build value, create job opportunities and improve economic development in the district is the broadly defined agricultural and forestry sector with its related value-adding activities.

District Scale Development Corridors (Refer to Plan 3.1 /Overleaf)

In line with the CHDM REDS and Special Economic Zones (SEZ) key strategies for economic development, four major corridors have been identified in Chris Hani DM. These corridors connect areas of economic development potential with the key urban settlement centres identified in the District Settlement Hierarchy. They also, for the main part, overlap with the district's main Tourism Routes.

The REDS has provided the strategic basis for an Agro-Industrial approach to development in the district, which has also taken form in the conceptualisation of a district Special Economic Zone (SEZ). • The Chris Hani SEZ proposed to have its Hub at the Queendustria industrial complex in Komani (former Queenstown).

- *CORRIDOR 1: The R61 from Queenstown through Cofimvaba, Ngcobo to Mthatha*

  Forestry and agriculture were identified as the two sectors with most economic development potential along this corridor.
- *CORRIDOR: 2 The R56 from Queenstown through Cacadu Town and Cala to Elliot*

  Coal mining and clay-brick making were identified as the two sectors/activities with most economic development potential.
- *CORRIDOR 3: The N10 from Middelburg through Cradock to Aliwal North*

  Wool production and wool processing; and chip-board manufacturing were identified as the two activities with most economic development potential
- *CORRIDOR 4: The N6 from East London through Queenstown to Aliwal North*

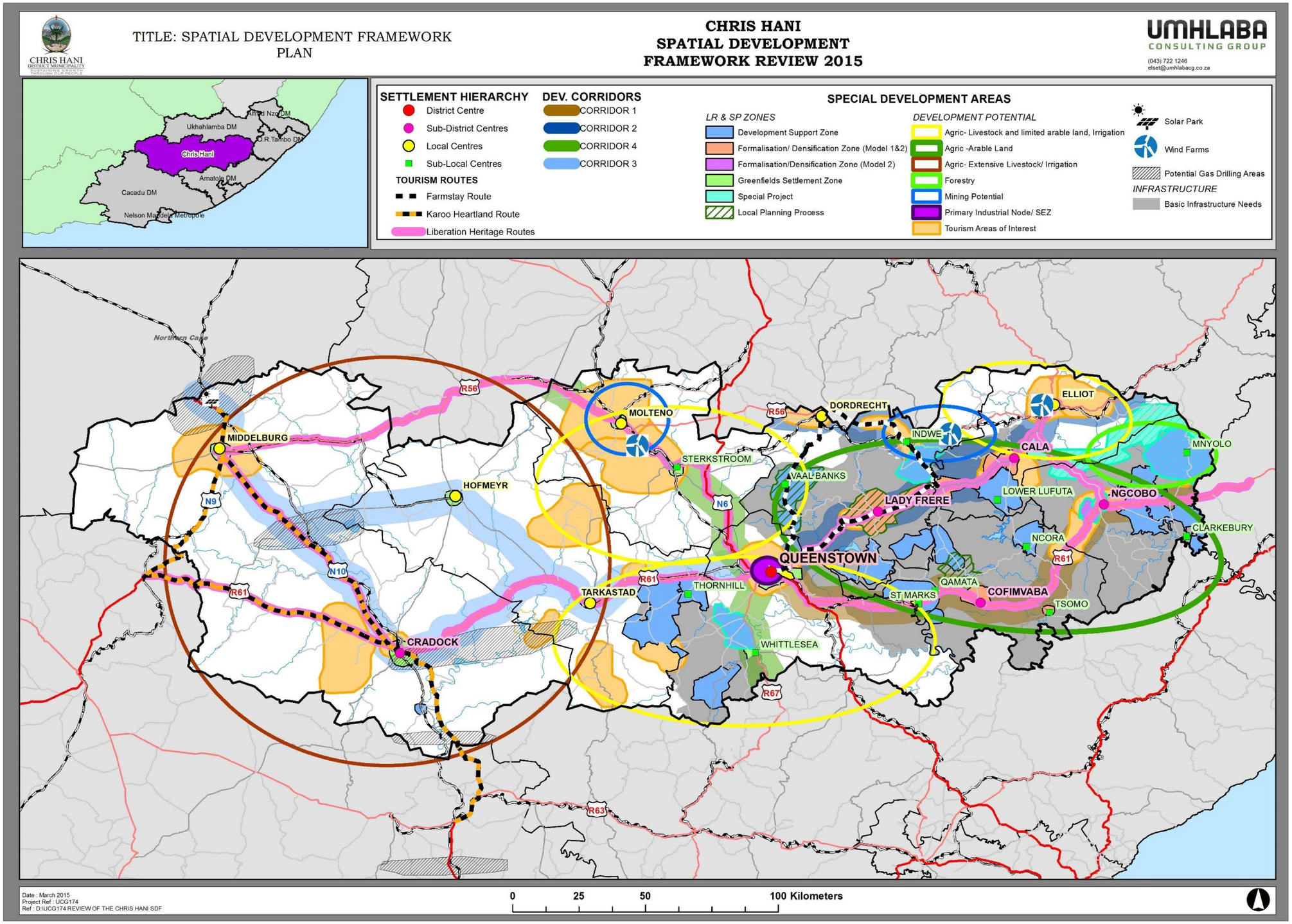
  The Queendustria SEZ at Queenstown and the Coal belt were identified as two areas with most economic potential in relation to this corridor

REDS specifically link the identification of the above corridors with targeted development and regeneration of the towns (main nodes and smaller urban settlements) linked by these routes.

In this regard, ***Komani,*** (***Queenstown)*** is recognized as the ***District Level Administrative Centre***. ***Emalahleni*** is recognised as ***a sub-district centre*** and a municipal level administrative centre, providing municipal scale services for commercial and social goods and services. Emalahleni functions as a residential development area for middle/low income housing and is recognised for value adding agro-industrial processes and event-related tourism potential. (CHDM IDP 2017-2022).

Vaalbanks located in the South Western portion of the Emalahleni is recognised as a ***minor administrative centre***, functioning as a minor service centre for social goods and services and earmarked for focussed support of agriculture-based local economic initiatives. Local Spatial Development Planning has been undertaken in this area.

Plan 3.1: Chris Hani Spatial Development Framework Plan, 2015



Note: Reference to Lady Frere should read Cacadu Town

4. THE EMALAHLENI IDP

The Emalahleni Municipality's Integrated Development Plan 2017 – 2022 forms the basis for the following sections of this report.

4.1 EMALAHLENI MUNICIPALITY'S VISION, MISSION AND VALUES

The IDP Guide Pack describes the purpose of formulating an agreed-upon long-term VISION for a Municipality as "the starting point of the [IDP] decision-making process".

Typically, long-term VISIONs are broad statements describing what stakeholders would like to see the Municipality becoming or achieving over time.

In Emalahleni, the long-term **VISION** in the IDP is set out as: -

> *"A municipality that delivers appropriate, sustainable and affordable services towards socio-economic growth for the development of its community."*

The Municipality's **Mission Statement** is given as: -

> *"Emalahleni Municipality promotes quality and excellent services that are valued by its customers through effective partnerships and active community participation as it plans for the future"*

The Municipality further sets out its **Core Values** as follows: -

- Responsiveness: we will put in place systems to promptly respond to the needs, complaints and enquiries of our communities.
- Cultural Diversity: we will promote and enhance all cultures in our municipality.
- Commitment: we commit ourselves to clean governance and accountability.
- Dignity: we will treat every client with dignity, respect and disciplined manner.
- Honesty: we will discharge our mandate with honesty.
- Innovation: to encourage alternative and innovative systems to discharge service delivery.
- Adhered practice to Batho Pele Principles.

4.2 STRATEGIC OBJECTIVES IN THE EMALAHLENI IDP

The IDP Review sets out the following Development Priorities for the Emalahleni Municipality in the planning period 2017– 2022: -

- *To provide improve and maintain infrastructure and basic services to local communities and or households by June 2022*
- *To ensure development and implementation of improved systems of communication, public participation and good governance in line with applicable laws and regulations by June 2022.*
- *To ensure effective implementation and monitoring of municipal systems to achieve clean administration.*
- *Improve financial viability of the municipality.*
- *To promote, facilitate and improve sustainable local economic development through local economic programmes by June 2022*

4.3 OBJECTIVES & STRATEGIES IN THE EMALAHLENI IDP

Emalahleni IDP has indicated that the Municipality's strategic response in terms of resource (budget) allocation to its development priorities will be ordered within the National Key Priority Areas (KPAs). These being: -

1. Basic Infrastructure and services
2. Local Economic Development
3. Municipal Transformation and Institutional Development
4. Financial Viability
5. Good Governance and Public Participation

The focus is on interpreting the relevant Objectives and Strategies and related projects/programmes set out in response to the KPAs – *specifically those with a direct or indirect spatial element.*[1]

Key Performance Areas (KPAs)	ORGANISATIONAL STRATEGIC OBJECTIVE (SO)	PRIORITY AREA	DEPARTMENTAL STRATEGIC OBJECTIVES
Basic Infrastructure services	To provide, improve and maintain infrastructure and basic services to local communities and or households by June 2022.	Community Safety Programs	To contribute in community safety programs within the municipal area
		Environmental Management and Waste Removal	To create a safe environment for all people of Emalahleni Local Municipality
		Disaster Management within ELM	To ensure a safe and secure environment through mitigating the negative impacts of disasters
		Provision of Adequate Energy Sources	To facilitate access to energy sources supply to all residents of ELM
		Human Settlement and Building Control	To facilitate provision of human settlements by relevant sector department in compliance with standards of building controls of ELM
		Roads and Storm Water Control	To ensure the provision of a comprehensive roads infrastructure network.
		Access to Public Buildings, Amenities and Recreational Facilities	To ensure the availability of well-maintained and repaired buildings, amenities and recreational facilities to which the public has full access.
Local Economic Development			
	To promote, facilitate and improve sustainable local economic development through identification and implementation of local economic development programs by June 2022.	Job Creation and Employment Creation	To improve economic development within ELM
		SMME Support	To encourage the formation and support the development of SMMEs within ELM
		Tourism Development	To implement the Local Economic Development Plan with a particular emphasis on key aspects of tourism development in ELM
		Agricultural Development	To promote and support agricultural development
		Facilitation of Economic Development Driving Infrastructure	To facilitate and urge for the establishment of necessary LED infrastructure in ELM
Financial Viability			
	To maintain and improve financial viability of the municipality	Audits & Achievement of a Clean Administration	To achieve a clean administration
		Revenue Management and Enhancement%	To increase the amount of revenue collected annually (year on year)
		Expenditure Management	To improve expenditure patterns and processes
		Budget Planning and Financial Reporting	To improve compliance and adherence to MFMA legislation
		Project Management	To improve the state of project management of capital projects
		Supply Chain Issues	To implement proper supply chain protocols in compliance with the MFMA legislation

Continued /…

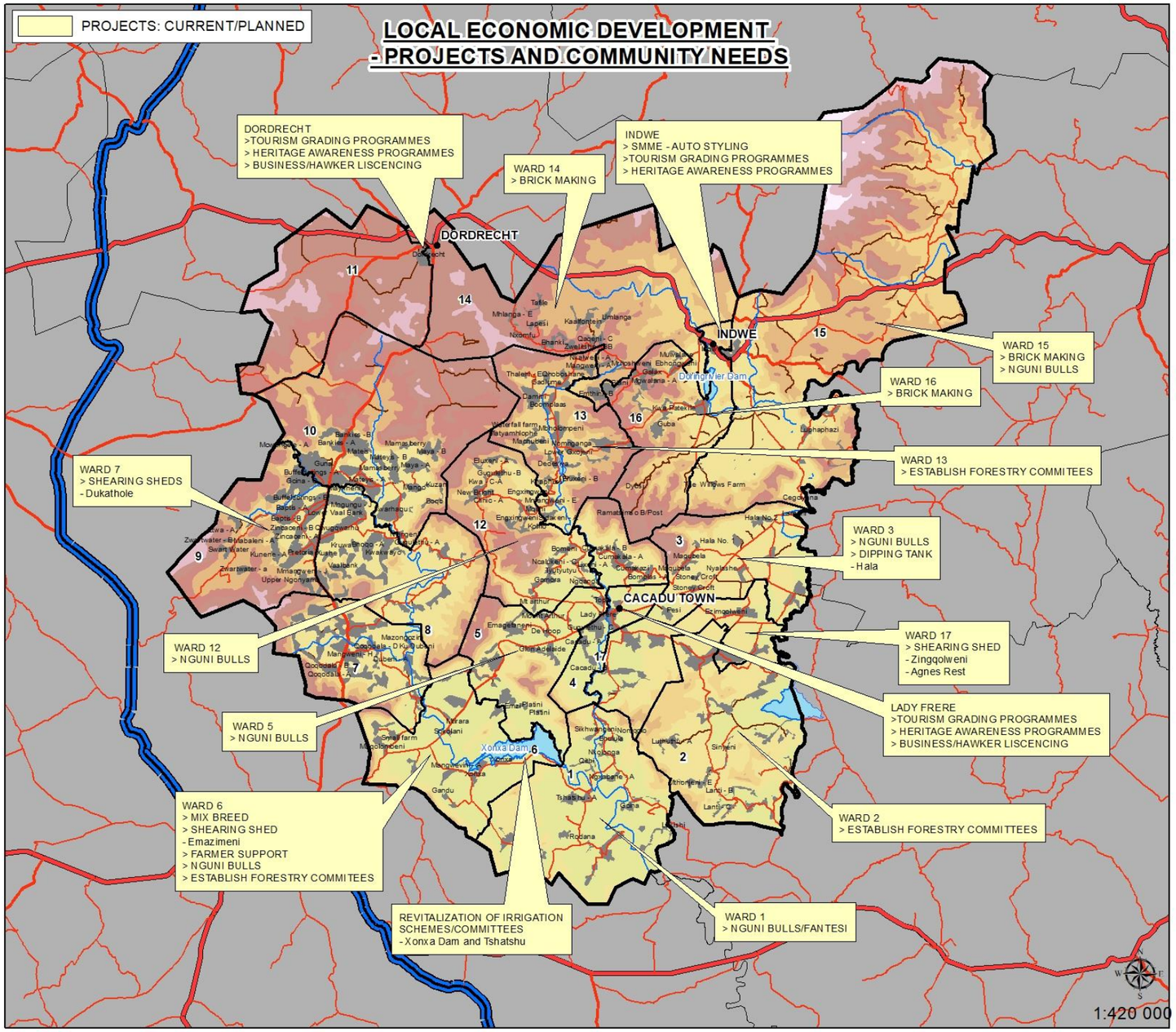
[1]

Good Governance and Public Participation			
	To ensure development and implementation of improved systems of communication, public participation and good governance in line with applicable laws and regulations by June 2022.	Communication	To ensure fully functional systems of internal and external communication.
		Public Participation	To improve the participation of communities and stakeholders in the affairs of the municipality by developing and implementation mechanism and systems for community participation
		Special Programs including HIV / AIDS	To streamline and mainstream all special programs including HIV / AIDS
		Municipal Governance	To improve internal controls for clean administration purposes by continuous implementation of all policies and regulations of the municipality
		Municipal Governance	To ensure there is an effective of municipal governance in line with applicable legislation
		Integrated Development Planning	To ensure a developmentally oriented planning institution in line with the requirements of local government laws and regulations.
		Performance Management System	To ensure there is a performance driven institutional culture in Emalahleni
		Inter- Governmental Relations (IGR)	To maximize public participation of all external and internal stakeholders of ELM
		Risk Management and Fraud Prevention	To ensure the ELM operates clear of anticipated risks of maladministration, fraud and corruption
		National and International Networking	To be represented and participate in national and international networks of local government that is of mutual benefits to all parties
Municipal Transformation and Institutional Development			
	To ensure effective implementation and monitoring of municipal systems to achieve clean administration.	HRD / Skills Development	To develop the skills of the workforce in order to enhance their competencies
		Human Resources Management	To provide appropriate human resources to support all directorates within the municipality
		Information Technology	To provide an integrated system that will ensure safety of information
		Municipal Administration	To establish and maintain a fully functional, responsive and accountable administration in line with local government laws and regulations
		Fleet Management	To ensure an efficient and effective Fleet Management System that runs in ELM

4.4 Spatial Distribution of Projects and Community Needs in the Emalahleni LM IDP

The following plans illustrate the community needs and projects that Emalahleni Municipality is pursing in terms of its KPA's and current and proposed projects as described in their 2017 -2022 IDP.

Plan 4.1: Local Economic Development: Projects and Community Needs



KPA: Local Economic Development LED

Priority expressed needs throughout the wards relates to support infrastructure for small scale agricultural activities such as provision of shearing sheds, dipping tanks, alien species eradication (Lapesi), farming support programs. Tourism, mining and SMME support are also expressed to a lesser extent.

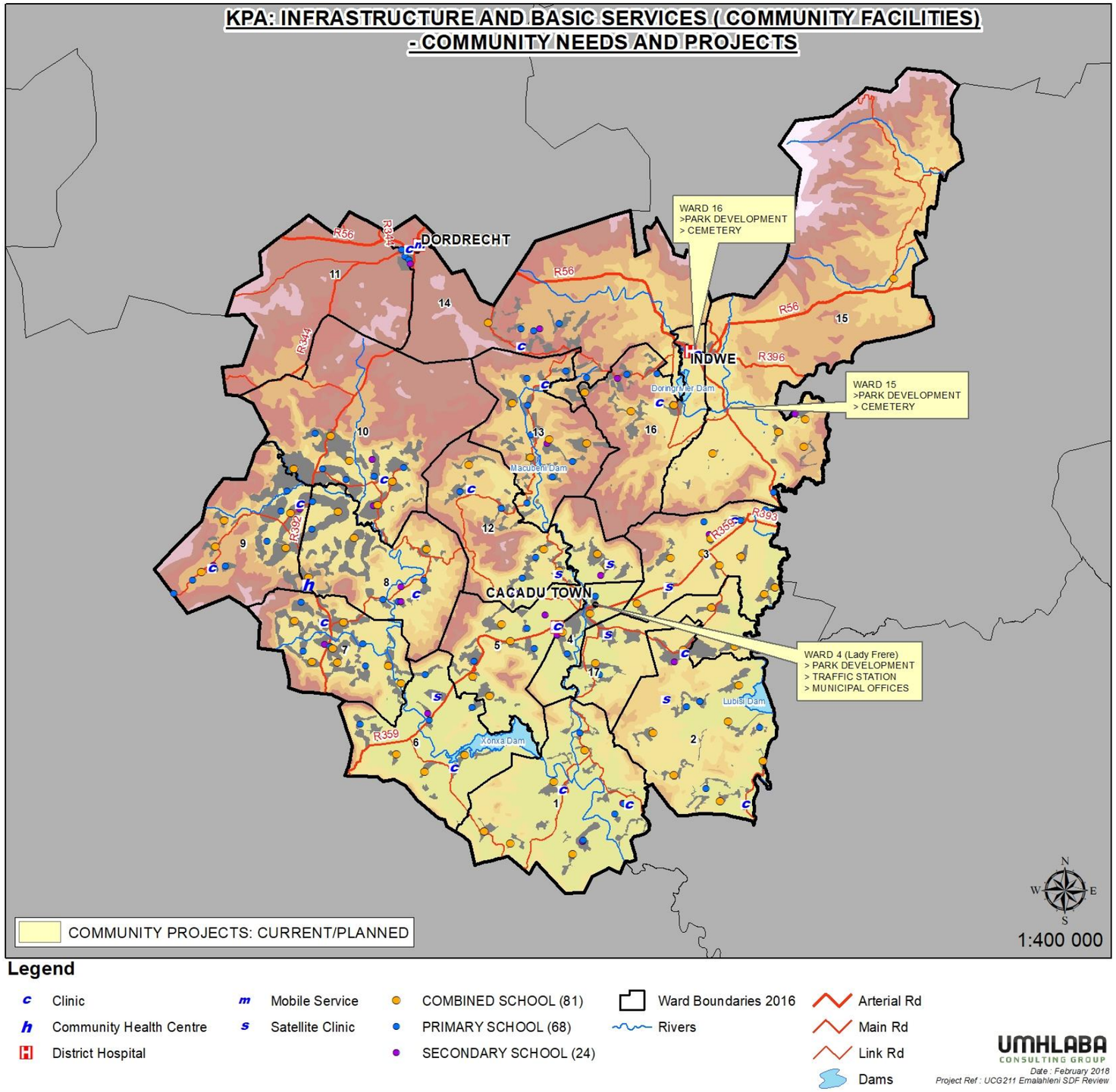
ORGANISATIONAL STRATEGIC OBJECTIVE (SO):

To promote, facilitate and improve sustainable local economic development through identification and implementation of local economic development programs by June 2022.

WARD-BASED NEEDS

PRIORITY AREA		DEPARTMENTAL STRATEGIC OBJECTIVES
Job Creation and Employment Creation		To improve economic development within ELM
SMME Support		To encourage the formation and support the development of SMMEs within ELM
Tourism Development		To implement the Local Economic Development Plan with a particular emphasis on key aspects of tourism development in ELM
Agricultural Development		To promote and support agricultural development
Facilitation of Economic Development Driving Infrastructure		To facilitate and urge for the establishment of necessary LED infrastructure in ELM
Ward 1	Irrigation Scheme	Tshatshu, Qithi
	Shearing Shed	Tshatshu, Qithi. Tsolokazi, Hlathikulu. Nqininhana
	Eradication of Lapesi	Tshatshu, Rwantsana, Rodana
Ward 2	Shearing Shed	Bengu, Maqhashu. Quthubeni, Lanti. Elthuthu
	Forestation	Quthubeni
	Eradication of Alien Veg.	Lanti. luthonjeni, Ithulu
	Tourism Centre/SMME support	
Ward 5	Mining formalisation	
	Tourism Centre	Mzi
Ward 6	Cultural Village	Nonesi
	Tiger Brand Project	
	Grain Miller	
	Mining	
	Aqua Cultural and tourism Centre	Xonxa
	Rural nodes	Xonxa
	Irrigation Scheme	Xonxa
	Cultural Festival	Nonezi
Ward 7	Shearing Shed	Qogodala
	SDF plan	
Ward 10	Mining	
	Annual Tournament	Themba - Zumana
Ward 11	Mining formalisation	
	Cheese factory / art centre/ Garage	
	Arts and culture support	Tears of Joy
Ward 12	Forestation	Mkhaphusi
	Bayambo Coop Support	Bayambo
Ward 13	Garden project	Gxojeni
Ward 14	Dordrecht Art Centre	
Ward 15	Nguni bulls project	Lupepasi
	Annual Tournament	Indwe
	Formalise mining	
Ward 16	Brick making support	
	Car Wash SMME support	Indwe
	Annual tournament	
	Formalise mining	
Ward 17	Youth job creation	
	Gardening projects	

Plan 4.2: Infrastructure and Basic Services (community facilities): Community needs and projects



KPA: Basic Infrastructure and Basic Services: Community Facilities

Service delivery is a key priority for the study area: The expressed priority needs for community facilities throughout the study area relate to the need for pre-schools, pay points, Graveyards, Old Age Centres, Sportsfields, Police Stations, Youth Development programmes and Early Childhood Development Programmes and Mobile Clinics.

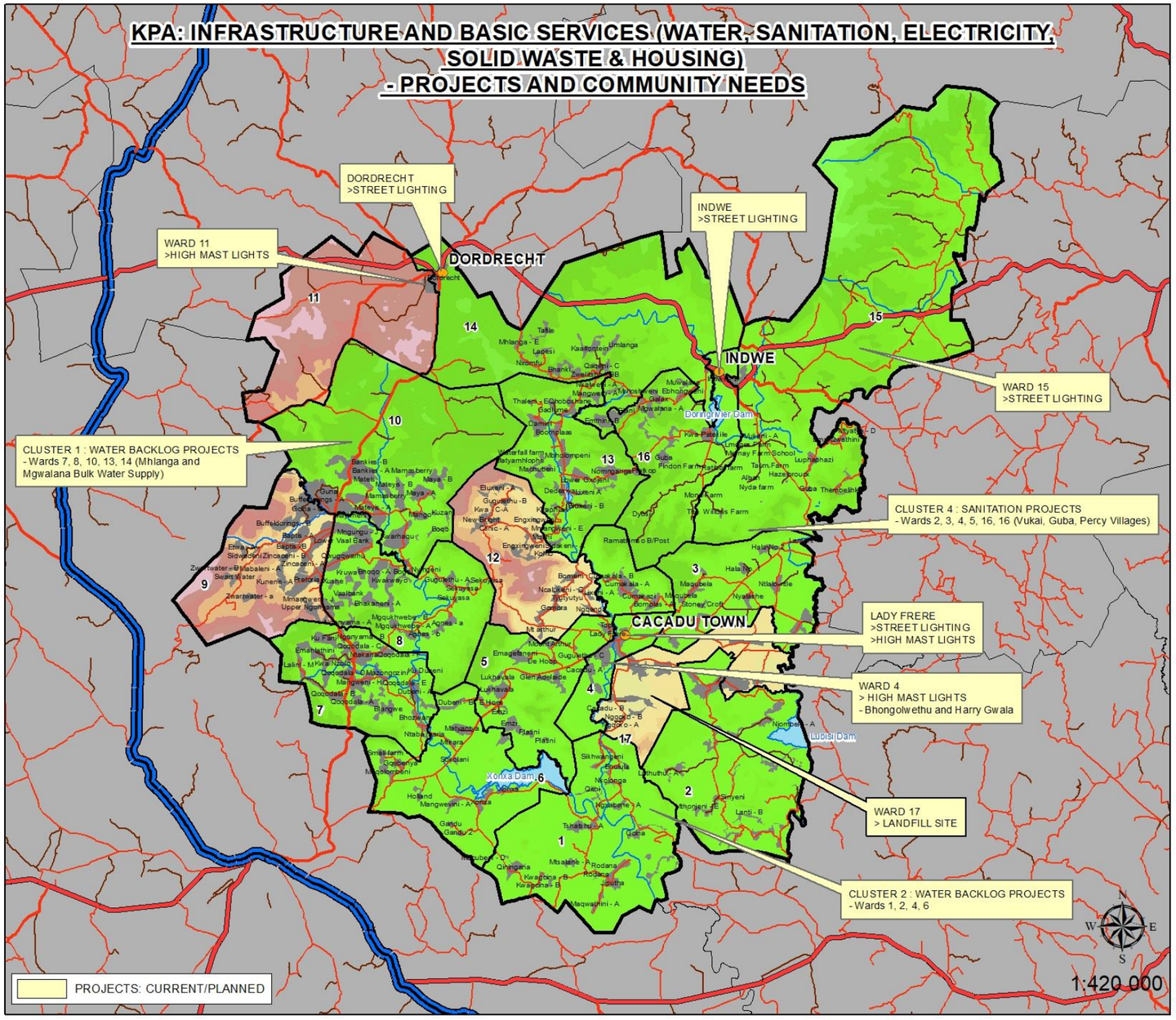
ORGANISATIONAL STRATEGIC OBJECTIVE (SO):

To provide, improve and maintain infrastructure and basic services to local communities and or households by June 2022.

WARD-BASED NEEDS

PRIORITY AREA		DEPARTMENTAL STRATEGIC OBJECTIVES
Access to Public Buildings, Amenities and Recreational Facilities		To ensure the availability of well-maintained and repaired buildings, amenities and recreational facilities to which the public has full access
Ward 1	Library	Tsolokazi
	Community Hall	Tshatshu
	Upgrade clinic/day hospital	Rwantsana
Ward 2	Maths school	Zothe Mtoneni
	Computers	Quthubeni Agricultural School
	Computers and Boarding School	Bengu Agricultural School
	Health / Maternity facilities	Masakhane, Njombela, Lanti Clinic. Bengu, Luqolo, Luthuli
	Community Hal/Paypoint	Mthonjeni
	Build/renovate pre-school	Nolvuyo, Quthubeni,Lanti Mathonjeni
Ward 3	Mobile Clinic	Greyspan
Ward 4	Early Childhoood Dev Centre	Cacadu Ext., Mzamo
	Develop and resource schools	Lady Frere
Ward 5	Mobile Clinics	Noluthado, Cumakal, Mzi. Dopu, Mission
	Pre-school	Camakala, Mzi, Topu. Mission, McKay's Neck, Mtsheko, Mxi
	Additional classrooms/upgrade	Freemantle Boys School
Ward 6	Old Age Home	Xonxa, Gando
	Library	Ikhala
	Upgrade Schools	Mtirara, Masikhale SPS, Gqebenya JSS, Mtirara SSS
	Paypoint	Xonxa
Ward 7	Upgrade/resource school	Nzimankulu SSS
	Mobile Clinic	Dubeni
	Gardening project	Dubeni School
Ward 8	Sportsfield	Boqo
	Upgrade/resource school	Ntsonkotha SSS
	Clinic	Vaalbank
Ward 9	Upgrade and resource school	Thozamisa SSS:
	Zwaartwater Community Hall	Zwaartwater
	Police station	Zwaartwater
	Sportsfield	Zwaartwater/Vaalbank
Ward 10	Service centres / aged	Soyi. Luxolo, Ethembani
Ward 11	Rebuild clinic	Hlaluphille
Ward 12	Additional classrooms/school	Mt Arthur
	Upgrade clinic	Mt Arthur, Ngqonda
Ward 13	Clinics	Machubeni, Helushe. Trust
	Taxi Rank / bus shelters	Nkangala
	Schools (mud construction)	Vuyani , pre-schools
Ward 14	Community Hall /Paypoint	Umhlanga Location
	Sportsground	Chankcele, Kalkfontein. Dordrecht
	Pre-school	Mrhosheni
Ward 15	Community Hall	Indwe
	Paypoint	Maqathini. Luphaphansi
	Mobile clinic	Ida, Guba Farms. Thembelihle, Cegciyana. Ntsinga
	Pre-school	Mzamomhle
Ward 16	Clinic	Chibini
Ward 17	Community Hall	Ngcuka
	Mobile Police	Bhakubha, Lower Maqhashu
	Pre-schools	Ngqoko, Ngcuka. Bakubha. Lower Maqhashu, Zingqolweni, Kulile
	Clinic access	Maqhashu

Plan 4.3: Infrastructure and Basic Services (water, sanitation, electricity, solid waste and housing): Projects and Community Needs



Legend

Main towns · Wards_Water_projects · Ward Boundaries 2016 · Rivers · Dams · National Route · Trunk Road · Main Road · District Road · Villages

UMHLABA CONSULTING GROUP

Date : February 2018
Project Ref : UCG211 Emalahleni SDF Review

KPA: Basic Infrastructure and Basic Services: Water, Sanitation, Electricity, Solid Waste, Housing

Service delivery is a key priority for the study area:
The expressed priority needs for infrastructure and basic services throughout the study area relate to the need for water, sanitation, electricity, housing, Dam development and desilting, windmills, street lighting and borehole maintenance.

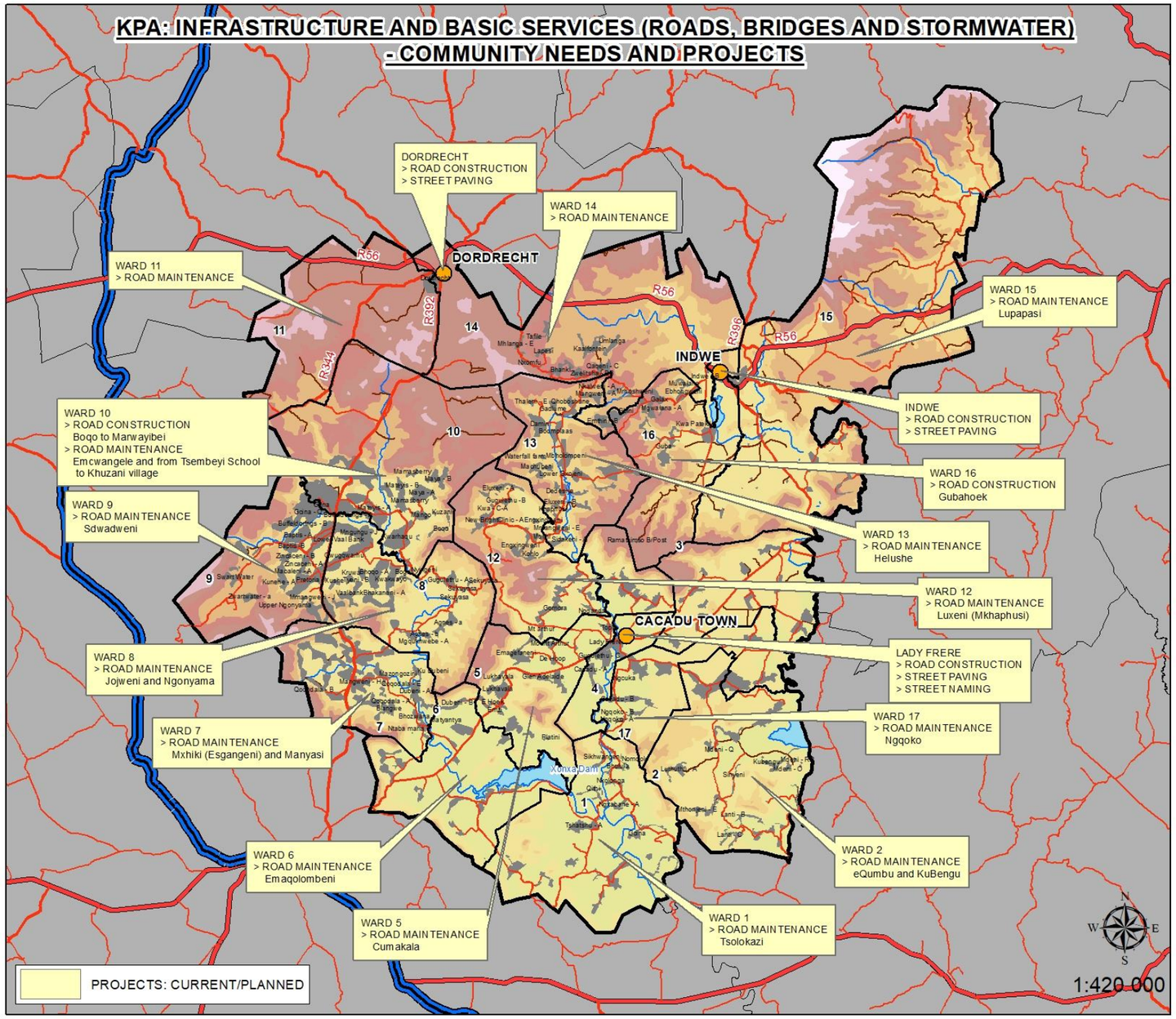
ORGANISATIONAL STRATEGIC OBJECTIVE (SO):

To provide, improve and maintain infrastructure and basic services to local communities and or households by June 2022.

WARD-BASED NEEDS

PRIORITY AREA		DEPARTMENTAL STRATEGIC OBJECTIVES
Provision of Adequate Energy Sources		To facilitate access to energy sources supply to all residents of ELM
Human Settlement and Building Control		To facilitate provision of human settlements by relevant sector department in compliance with standards of building controls of ELM
Disaster Management within ELM		To ensure a safe and secure environment through mitigating the negative impacts of disasters
Environmental Management and Waste Removal		To create a safe environment for all people of Emalahleni Local Municipality
Ward 2	Water	Ligwa, Maqhasha, Ithuthu, Laneti, Njombela
	Sanitation	Ligwa, Zothe, Masakhane, Lanti, Eshalbeni, Quthubeni, Njombela, Luqolo
	Electricity supply, extensions and infills	Zothe, Masakhane, Luthuthu Lanti,Mthonjeni, Luqolo field,
	Water Schemes	Bengu and Lanti
	Water Resource Management Plan	Lubisi Dam
Ward 3	Windmill	Greyspan, Hala
Ward 4	Streetslights	Lady Frere
Ward 5	Livestock dams/houses	
Ward 6	Water and sanitation	Xonxa, Gqebenya, Dlamini, Sokolani, Matyhantya,(Masikhule and Mtirara schools.)
Ward 7	Dam desilting	
Ward 8	Water and sanitation	Deep level, Joweni, Vaalbank
Ward 9	Water and sanitation / RDP houses	Zwelitsha
Ward 10	Livestock dam/RDP houses	
Ward 11	Sanitation and extension	Kloof Dam
	Street lights	Harry Gwala/Zwelethemba
	Housing Project	Zwelethemba (289)
Ward 12	Water and Sanitation	Mt Arthur School/all schools
	Electricity	Mt Arthur / All villages
Ward 13	Water and sanitation	Taleni, Godlume, Helushe, Tshamazimba, Luxeni, Platkop, Mkhaphusi
	Dam Desilting	Machubeni
Ward 14	Spring stopping	
Ward 15	Water upgrade	Manyano
	Cleaning of watertanks	
Ward 16	RDP houses	Phumlani, Sonwabile and Phase 2 Dev.
	Water Resource Management Plan	Doring Dam
Ward 17	Water and sanitation	Lower Maqhashu, Bhakubha, Ngcuka, Nggoko, Zigqubani

Plan 4.4: Infrastructure and Basic Services (roads, bridges and stormwater): Community Needs and Projects



Legend

- Main towns
- Ward Boundaries 2016
- Villages
- Rivers
- Dams
- National Route
- Trunk Road
- Main Road
- District Road

UMHLABA CONSULTING GROUP

Date : February 2018
Project Ref : UCG211 Emalahleni SDF Review

KPA: Basic Infrastructure Services: Roads, Bridges, Stormwater

Service delivery is a key priority for the study area: Priority needs throughout the study area relate to the upgrade and tarring of access roads and main roads and stormwater provision and culverts, fencing of farmlands, upgrade and provision of bridges. The Table below indicates areas specifically identified for roads, bridges and stormwater infrastructure investment per ward during the IDP (2017- 2022) process.

ORGANISATIONAL STRATEGIC OBJECTIVE (SO):

To provide, improve and maintain infrastructure and basic services to local communities and or households by June 2022.

WARD-BASED NEEDS

PRIORITY AREA		DEPARTMENTAL STRATEGIC OBJECTIVES
Roads and Storm Water Control		To ensure the provision of a comprehensive roads infrastructure network.
Ward 1	Access and Main Roads	Fezekile Jss, Tsoolkazi, Iathi Khulu, Nkolonga, Rodana, Rwantsana, EMahumen.
Ward 2	Bridge	Maqhashu, Quthubeni
	Access Road and Footbridge	Njombela Graves
Ward 3	Access Road	All Villages and Madwaleni SSS, Greyspan Dipping Tank, Ndonga Clinic
Ward 4	Roads	Cacadu and Location
	Bridge	Location and Revamp old bridge
	Fencing	River at Bongolwethu and Graveyard (Kwazakehele)
	Paving:	Location and Cacadu Extension
	Access Road	Cacadu Ext. and Graveyard
Ward 5	Culverts:	Mackay's Neck, Mzi and Khavala
	Access Roads	Fremantle Boys School – Indwe Road
	Bridge	Cumakala
Ward 6	Access Roads	Magolombeni Road, Moshumi, Sokolani, Emanzini – School, clinic and Ikhala FET College
	Fencing	Farmlands/Xonxa Dam/ Tar road
Ward 7	Bridge	Noluphondwana, Bozwana
Ward 8	Bridge	Qhugqwarhu River (Grootvlei) and Eluxeni (White River) and Bailey Bridge (Bongo River) Upgrade
Ward 9	Raods	Access Roads and Causeways /Upgrade BRidges
Ward 10	Bridge	Mcwangele, Ngcalisini, Mission, Bailey Bridge (Fini River)
	Fencing (R12)	R12
Ward 11	Raods	Maintain tar road and paving
Ward 13	Fencing	Ma-Awa Farm and farmlands
Ward 14	Access Roads	Mangweni – Nkilweni, Zwelitsha, Sosebenza, Mgqobozi, Nqonti - Tafeni, Nxomfu – Zonla, Tafini - Sosebenza
Ward 5	Access Roads	Idasa Farm
	Fencing	Farmland, Ntsinga, Maqwati, Tembelihle, Graveyard
	Fencing Backyard	Indwe
	Upgrade Tar Roads / Roads	Manyano, Maqwathini and Thembelihle
Ward 18	Tar Road	Indwe Lady Frere
Ward 17	Fencing Farmland	Ngcuka, Ngqoko

5. PHYSICAL CHARACHTERISTICS

5.1 TOPOGRAPHY AND DRAINAGE

The Emalahleni LM is dominated by the Lowlands with mountainous terrain, which is bisected by Low Mountains in the North West and to the North East by strongly undulating irregular land and high mountains.

Emalahleni Local Municipality drains from the north at an altitude of 1500-2000m above sea-level to the south with an altitude of 1000-1500m above sea-level.

5.2 CLIMATE

The northern areas of Dordrecht and Indwe are situated on the high plateau (1500-1800m above sea level) fall within the arid and semi-arid cold high lying land, whilst the rest of Emalahleni Local Municipality is situated on the arid and semi-arid moderate midlands. The temperatures on the high plateau range between 19 - 22ºC in summer and 7 - 10ºC in winter. The temperatures in the Cacadu Town District ranges between 18-22ºC in summer and then drops to between 10-14ºC in winter.

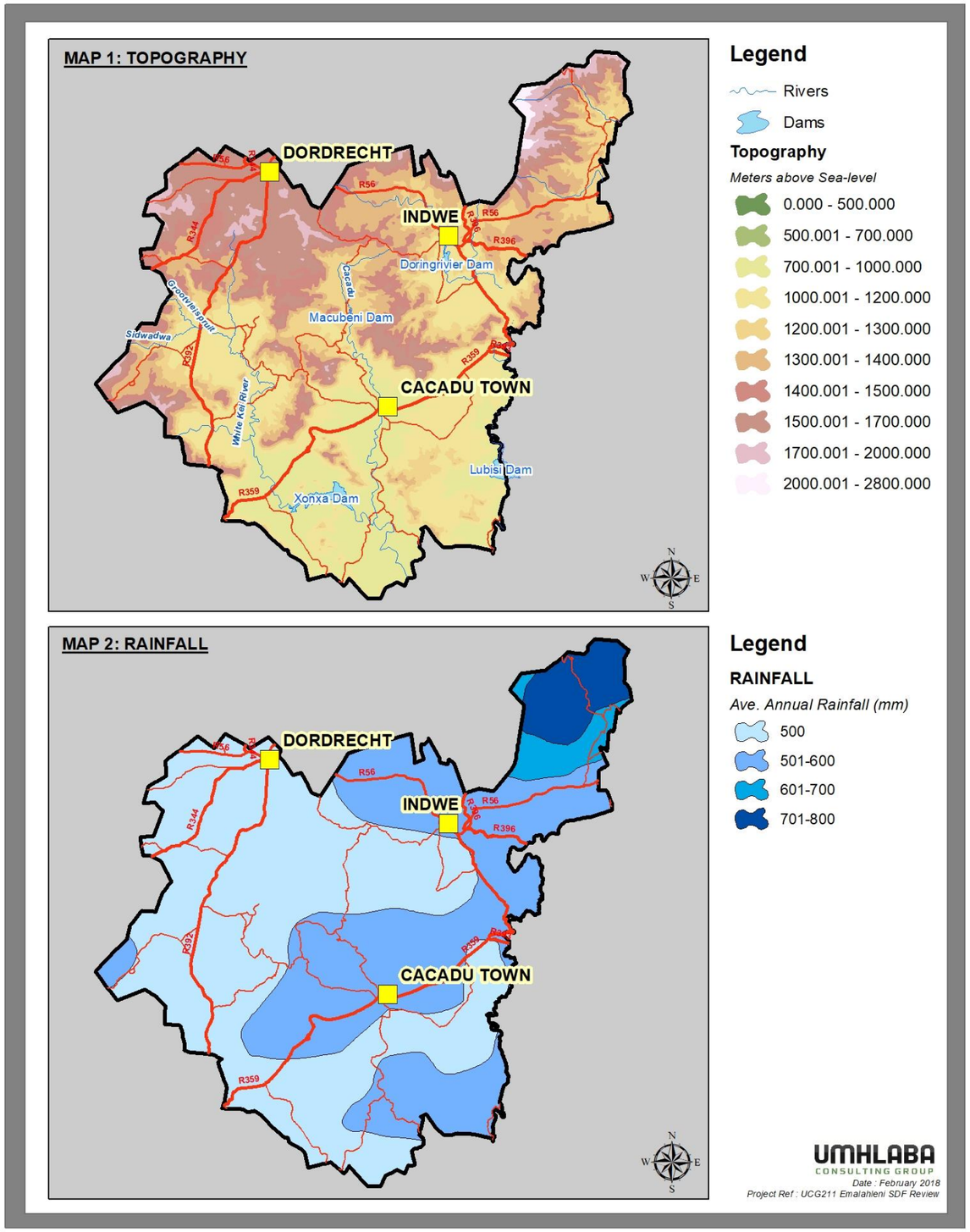
5.3 RAINFALL AND EVAPORATION

Rainfall distribution in Emalahleni Local Municipality is poor and dry spells are a frequent occurrence. The western section of the Municipality experiences an average of 500mm per annum. This increases to the east.

70% - 80% of the precipitation occurring during the summer months in the form of thunderstorms. Rainfall is probably not the best indicator of moisture available for crop production, as rain evaporates (more in the warmer and windy areas then in cooler areas), deep drainage and runoff.

Evaporation in the Emalahleni Local Municipality is much higher than the average annual rainfall. The evaporation on the northern high plateau is 2000 mm per annum, whereas it is approximately 1700 mm per annum in the Cacadu Town district. This phenomenon complicates crop production as it requires moisture conservation for dryland cropping and sophisticated irrigation management.

Plan 5.1: Topography and Rainfall



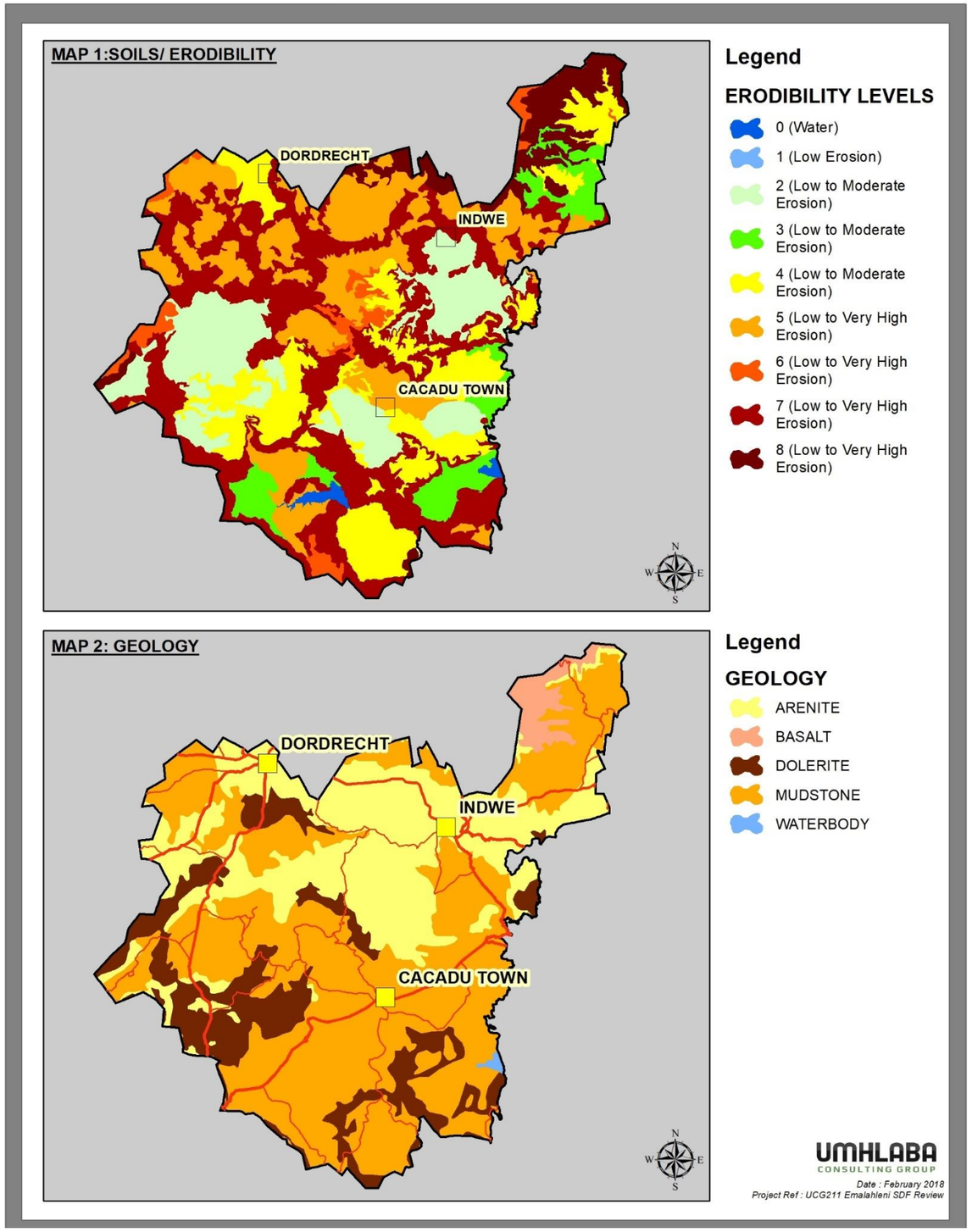
5.4 Soils And Erosion

The Emalahleni municipality is dominated by highly erodible claypan soils in the central and southern basins. The latter are surrounded by low mountains covered by thin soils which are erodible except where dolerite rock dominates. The soils of the northern parts are somewhat less erodible due to a higher frequency of sandstone compared to mudstone in the geology. The rainfall is such in this municipality that dryland arable agriculture can take place on the better soils (mostly "apedal" loams or sandy loams). These are relatively deep, favourably structured and porous soils with favourable water characteristics. The largest occurrence is below Indwe town.

5.5 Geology

The Geology of Emalahleni Local Municipality consists mainly of Beaufort sediments intruded by dolerite. These comprise shale, mudstone and sandstone. Commercial geology consists of coal and clay deposits near Indwe and decorative store (slasto) at Machubeni. The 2017 – 2022 IDP cites that the coal reserve spans more than 10 000 hectares in the north-eastern part of the Municipal area (Indwe, Guba A/A, Machubeni A/A and Mhlanga A/A), with an anticipated lifespan of more than 30 years. This is, however speculative. The occurrence and extent of other minerals is not known.

Plan 5.2: Soils and Geology



5.6 VEGETATION

Vegetation types represent an integration of the climate, soil and biological factors in a region, and as such, are a useful basis for land-use and conservation planning. There are nine vegetation types found in the Emalahleni LM. The distribution of these vegetation types is illustrated in the map 1. Tsomo Grassland covers 49% of the Municipality. This vegetation type is classified as vulnerable.

5.7 LAND CAPABILITY

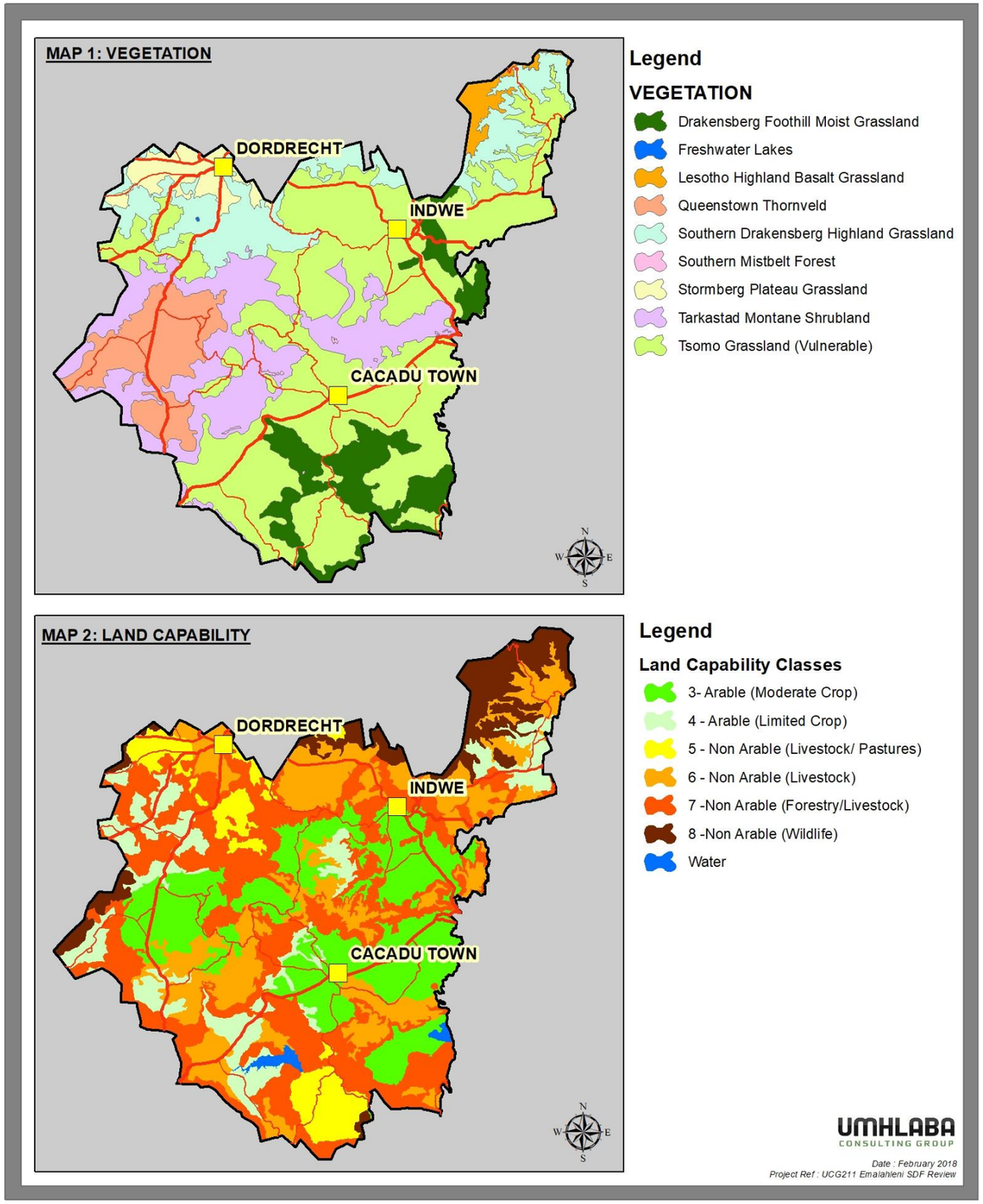
Land Capability is determined by the collective effects of soil, terrain and climate features. It indicates the most intensive long-term and sustainable use of land for rain-fed agriculture and at the same time highlights the permanent limitations associated with the different land use classes. It is therefore a more general term and conservation oriented than land suitability. The table below gives an indication of the suitable land uses for the various Land Capability Classes (LCC)

Table 5.1: Land Capability

Land Capability			Intensity of use for rain-fed agriculture								
Orders		Classes	Wildlife	Grazing & Forestry				Crop Production			
				Forestry	Veld	Veld Reinforcement	Pastures	Limited	Moderate	Intensive	Very Intensive
Arable	A	I	x	x	x	x	x	x	x	x	X
		II	x	x	x	x	x	x	x	x	
	B	III	x	x	x	x	x	x	x		
		IV	x	x	x	x	x	x			
Non arable	C	V	x	x	x	x	x				
		VI	x	x	x	x					
		VII	x	x	x						
	D	VIII	x								

There is no area of high potential arable land (class I) in Emalahleni LM. 34 % of the Municipal Area is classified as Arable (LCC 1-4). The distribution of this arable land is illustrated in Map 2.

Plan 5.3: Vegetation and Land



5.8 ENVIRONMENTAL INFORMANTS

5.8.1 Environmental Challenges

The following environmental challenges are evident in the study area.

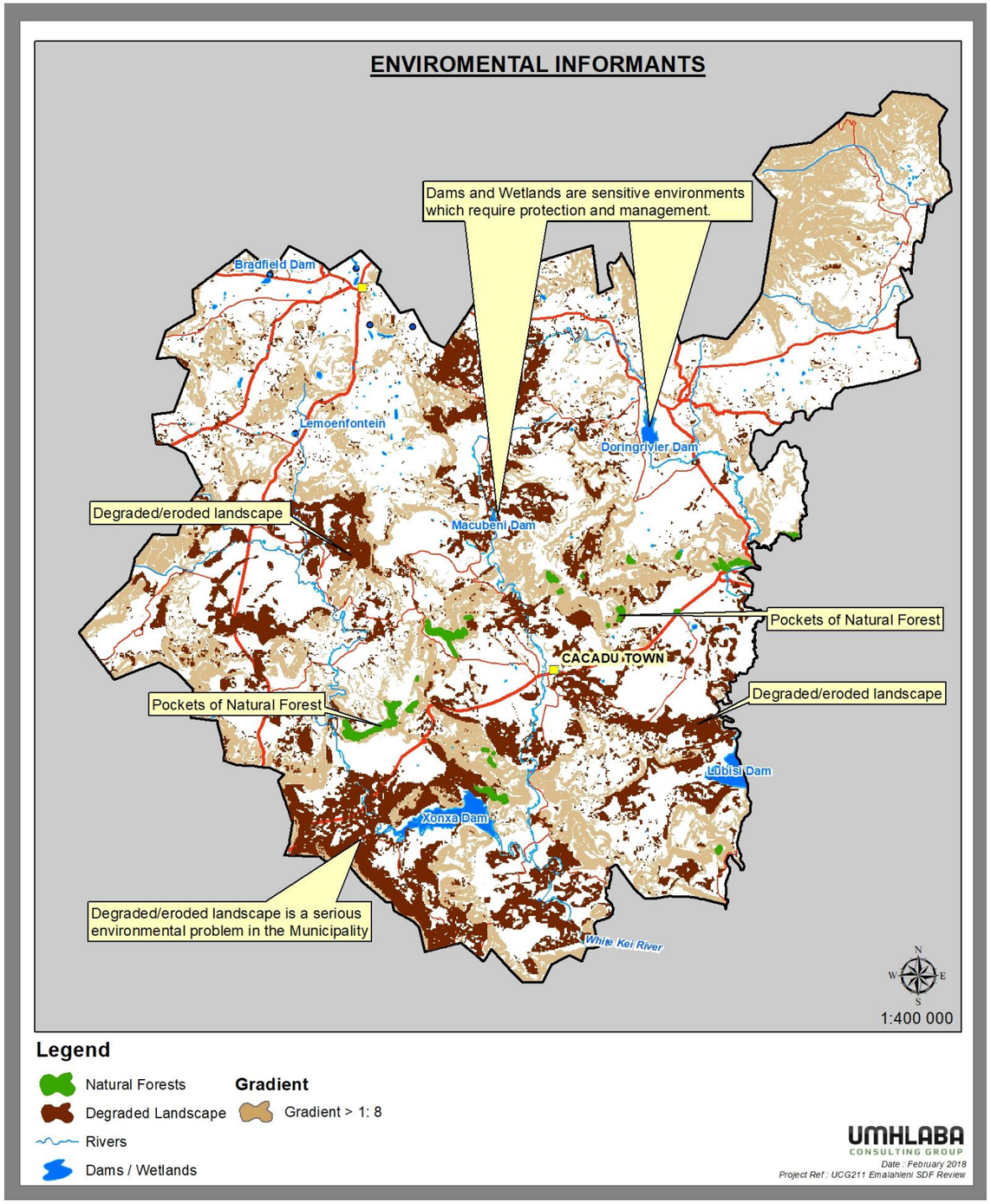
1. There are a number of sensitive environments such as Dams and Wetlands, which require protection and management
2. There are a number of heritage sites which require protection and management
3. Land Degradation and soil erosion is a big problem in Emalahleni Local Municipality. 64 865 hectares of land are classified as degraded. This accounts for approximately 19% of the Municipal Area.
4. Climate change showing measured increases in average global temperatures with potential causal effects of heatwaves and prolonged periods of drought.

5.8.2 Environmentally Sensitive Areas

The following are high-risk (environmentally sensitive) areas where development is discouraged.

- Topography: Slopes with a gradient greater than 1:5. This is due to the ecological impacts which may result e.g. soil erosion; slope failure etc.
- Rivers/ Water Source: Development within the 1:100-year flood line or within 100m of the high flood level. Development within 50m of riverbank; with 100m being the preferred distance.
- Vegetation: Afromontane Forest, Specific Grassland areas, Areas containing Plants and Vegetation of Conservation Importance
- Wetland Areas
- Heritage Sites: Rock Art Sites
- Other Areas: The habitat of endangers animals and birds e.g. the Wattle Crane
- Municipal Public Open Space.

Plan 5.4: Environmental Informants



5.9 EASTERN CAPE BIODIVERSITY CONSERVATION PLAN (ECBCP)

The ECBCP land use guidelines are based on ten principles, described below:

1. Avoid land use that results in vegetation loss in critical biodiversity areas.
2. Maintain large intact natural patches – try to minimize habitat fragmentation in critical biodiversity areas
3. Maintain landscape connections (ecological corridors) that connect critical biodiversity areas.
4. Maintain ecological processes at all scales, and avoid or compensate for any effects of land uses on ecological processes.
5. Plan for long-term change and unexpected events, in particular those predicted for global climate change.
6. Plan for cumulative impacts and knock-on effects.
7. Minimize the introduction and spread of non-native species.
8. Minimize land use types that reduce ecological resilience (ability to adapt to change), particularly at the level of water catchments.
9. Implement land use and land management practices that are compatible with the natural potential of the area

Balance opportunity for human and economic development with the requirements for biodiversity persistence.

To facilitate the use of the ECBCP information, a land management objectives-based approach has been adopted. This approach rests on the concept of Biodiversity Land Management Classes (BLMCs). Each BLMC sets out the desired ecological state that an area should be kept in to ensure biodiversity persistence.

Table A on the EC Biodivesity Plan sets out the Terrestrial BLMCs and the recommended land use objective for each class. The BLMCs can be used to "red flag" areas where land-use changes that may require environmental authorization (e.g. an EIA).

EC Aquatic Conservation: CBA 1 and CBA2: Formally protected water sources include a number of large water catchments, including the dams, Xonxa, Lubisi, Machubeni and Doringriver Dam

Plan 5.5: EC Biodiversity Conservation Plan

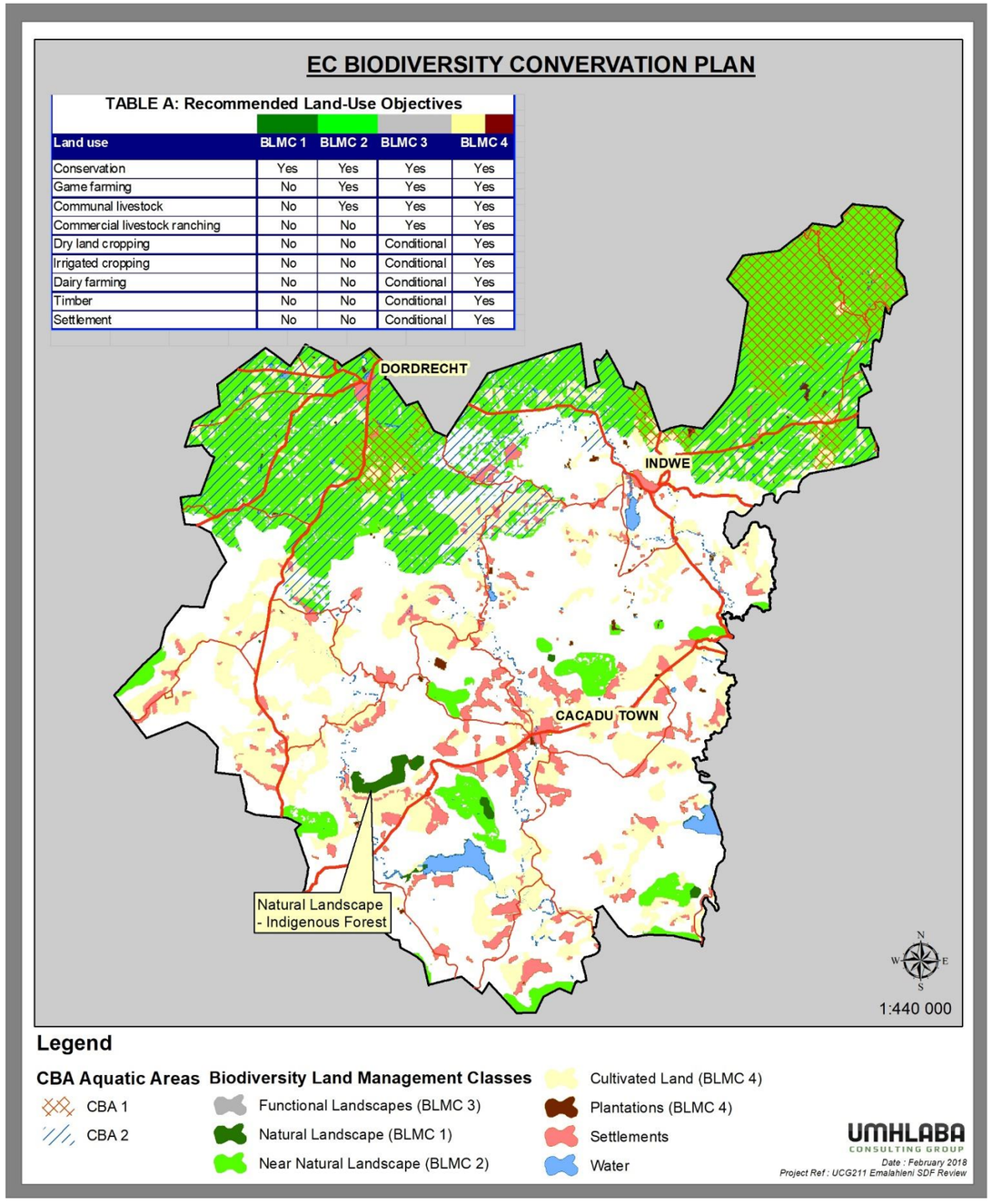


TABLE A: Recommended Land-Use Objectives				
Land use	BLMC 1	BLMC 2	BLMC 3	BLMC 4
Conservation	Yes	Yes	Yes	Yes
Game farming	No	Yes	Yes	Yes
Communal livestock	No	Yes	Yes	Yes
Commercial livestock ranching	No	No	Yes	Yes
Dry land cropping	No	No	Conditional	Yes
Irrigated cropping	No	No	Conditional	Yes
Dairy farming	No	No	Conditional	Yes
Timber	No	No	Conditional	Yes
Settlement	No	No	Conditional	Yes

5.10 LAND COVER

The land cover pattern is largely determined by topographical and climatic factors. However past political engineering; current tenure arrangements and population densities have impacted on the type of land cover. The Land Cover map illustrates 50% of the Municipal land cover is unimproved grassland.

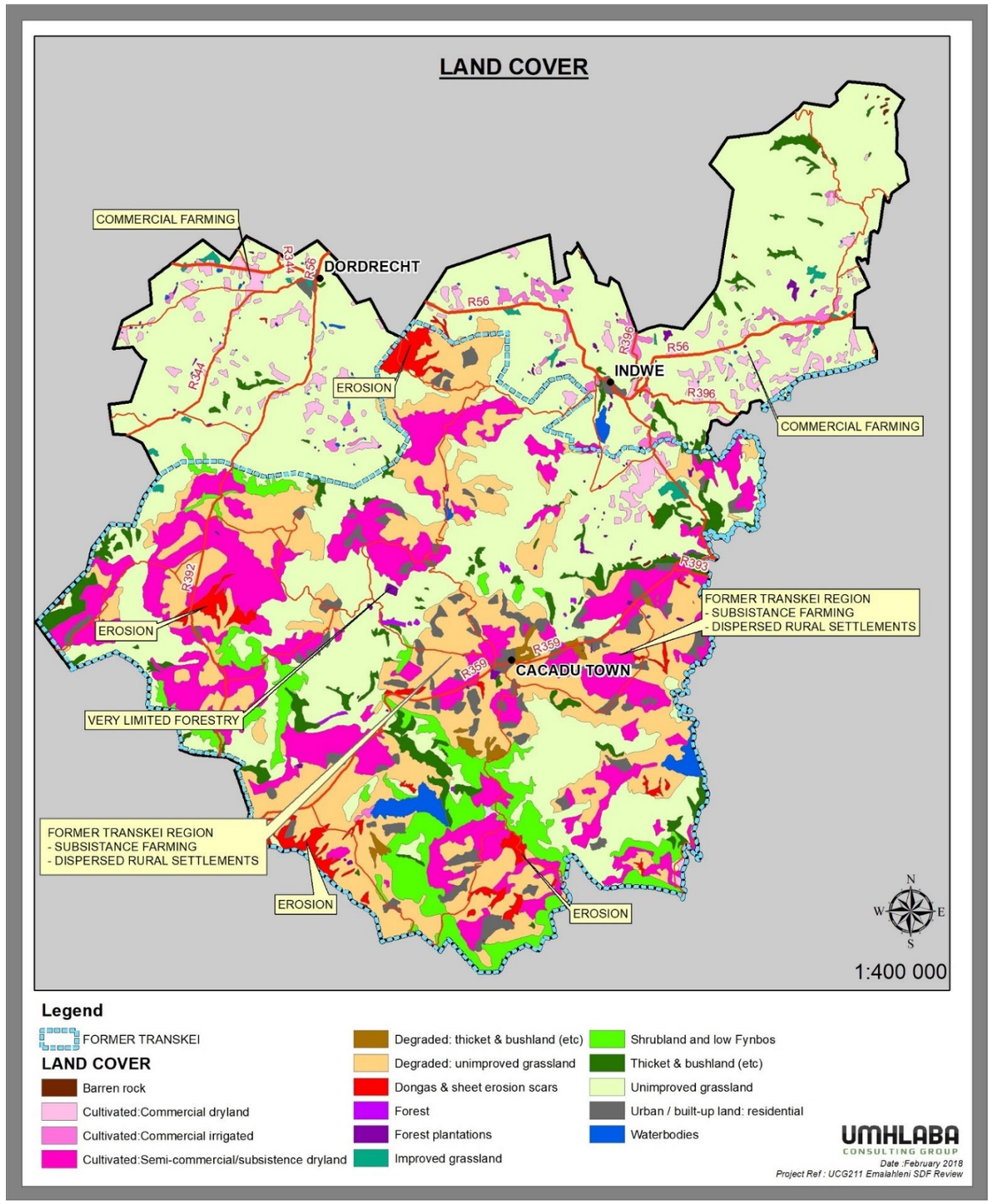
Table 5.2: Breakdown of land cover classifications for the Municipality.

Land Cover	Area (HA)	% of LM
Barren rock	280.47	0.1
Cultivated:Commercial dryland	8549.52	2.5
Cultivated: Commercial irrigated	3048.65	0.9
Cultivated: Semi-commercial/subsistence dryland	**44838.90**	**13.0**
Degraded: shrubland and low Fynbos	81.99	0.0
Degraded: thicket & bushland (etc)	1342.91	0.4
Degraded: unimproved grassland	**63439.88**	**18.4**
Dongas & sheet erosion scars	6080.19	1.8
Forest	390.68	0.1
Forest plantations	954.25	0.3
Improved grassland	1096.61	0.3
Shrubland and low Fynbos	16924.38	4.9
Thicket & bushland (etc)	10370.01	3.0
Unimproved grassland	**175154.16**	**50.8**
Urban / built-up land: residential	9387.65	2.7
Waterbodies	2720.11	0.8

Table 5.2 above indicates that: -

- Two thirds (69 %) of land cover in the municipality is either degraded (18 %), or unimproved grassland (50.8 %).
- Only about 13% is cultivated on a semi-commercial/subsistence basis.
- The urban or built up residential land covers about 3 % of land cover.

Plan 5.6: Land Cover



5.10.1 Settlement

The population is rural in nature. Approximately 94% of the population resides on farms and in traditional African settlements on communal land areas and an estimated 6% of the population reside in urban areas.

Emalahleni Municipality consists of one District centre, i.e. Cacadu Town and two minor service centres, i.e. Indwe and Dordrecht. Cacadu Town is situated on the R396, while Dordrecht and Indwe are situated on the R56.

Settlements are clustered in the low-lying areas around the town of Cacadu Town and the western portion of the Municipality. The settlements to the west of Indwe are located far apart due to the topography.

5.10.2 Farming

Commercial Farming is occurring around the towns of Dordrecht and Indwe, while there is predominately subsistence farming in the former Transkei region. Subsistence farming contributes to 13% of the land cover compared to the 3.4% of Commercial Farmlands.

5.10.3 Environment

There is evidence of high levels of degradation with 18.4% of the land cover degraded unimproved grassland and a further 1.8% dongas and sheet erosion scars. Attention needs to be paid to addressing the cause of the degradation.

There are no National Parks or Reserves in the Municipal Area but there are Heritage Sites of conservation importance.

There are four dams within the Municipal area, the Xonxa and Lubisi Dam are located in the south, the Machubeni Dam in the Centre and the Doring River Dam is close to Indwe. The Dams have excellent potential for irrigation, which could assist the large amounts of land available for agriculture.

Physical Characteristics - Implications

- *The extent of unimproved grasslands suggests that Emalahleni has good potential for livestock production, in particular sheep and cattle.*
- *The area surrounding Lady Frere extending to the east experiences the best climatic conditions and soils for crop production and cultivation*
- *Degradation of land and loss of potentially arable land is of both environmental and economic concern*
- *Resource base under pressure in rural settlement areas:*
    - *Competition for rural resources (land) between prospective uses*
        - *Residential*
        - *Cultivation Free-range grazing*
- *The Dams in the Municipality create opportunities for tourism and agriculture.*

6. SERVICES INFRASTRUCTURE

6.1 WATER AND SANITATION BACKLOGS

Varying sources show discrepancy in data. The Chris Hani IDP, 2017-2022, as per Table 6.1 below, cites that approximately 40 % of households are served with piped water at RDP standards and above, when looking at the varying types of water supply, presented in Table 6.2, a higher figure of 54 % is presented.

Table 6.1: Water and Sanitation Services Backlogs in Emalahleni LM

WATER				SANITATION			
Households		Percentage		Households		Percentage	
Served	Unserved	Served	Unserved	Served	Unserved	Served	Unserved
13 746	20 569	40%	60%	13,108	19,206	41%	59%
Source: Chris Hani IDP 2017 -2022 (reference to CH WSDP 2014 – 2015 and SA Stats survey 2016)				*Source: SA Census 2011*			

Table 6.2: Household access to varying type of water supply

HOUSEHOLD ACCESS TO VARYING TYPES OF WATER SUPPLY		
TYPE OF WATER ACCESS	**NO. OF HOUSEHOLDS**	**%**
RDP standard and above		
Piped water inside dwelling	1 730	5
Piped water inside yard	5 080	16
Communal Piped Water less than 200 m from dwelling (at RDP Level)	10 600	33
Below RDP standard		
Communal piped water more than 200 m from dwelling (Below RDP level)	3 330	11
No formal piped water	11 200	35
TOTAL	**31 900**	100

Source: IHS Global Insight Regional eXplorer version 1029 (Chris Hani District IDP 2017/2022)

Sanitation backlogs are much higher, with 59% of households unserved. The majority of these households with access to hygienic sanitation facilities are concentrated in towns of Cacadu Town, Indwe and Dordrecht. Census 2011 statistics reveal that 11,8 % of households have access to flush toilets linked to the formal sewerage system. The use of pit latrines remains widespread.

6.2 ERADICATION OF BACKLOGS

Chris Hani District Municipality is implementing a programme of eradicating water and sanitation backlogs in the District. The programme is grouped into a number of geographical "clusters. The details are given in the table below.

Table 6.3: Estimated cost of eradicating water backlogs in Emalahleni LM (Chris Hani IDP 2017-2022)

MIG CAPITAL PROJECTS FOR 2017/2018 -2018/2019 -2019/2020 Cluster 2 Water Backlog			
CLUSTER / VILLAGES	**TOTAL COST**		
	2017/18	**2018/19**	**2019/20**
Cluster 1: Water backlog (Wards 7,8,10,13,14)			-
Mhlanga Water Supply	**R20 045 810**	**R20 000 000**	**R2 000 000**
Mhlanga and Mgwalana Bulk Water Supply		R4 303 772	R15 625 325
Cluster 2: Water Backlog Projects (Wards 1,2,4 and 6)			
Regional Scheme 3: Phase 1A	R131 000		
Regional Scheme 3: Phase 1B	R171 000		
Regional Scheme 6 - Xonxa	R100 000		
Regional Scheme 1: Nkonlonga, Sikhwanqeni Water Supply	R210 000		
Regional 3 and 4 Sanitation Backlog			
Cluster 4 sanitation (Wards 2,3,4,5,15,16, Vukani Guba and Percy Villages)	**R 5 000 000**	**R5 000 000**	**R5 000 000**
Cluster 3 Sanitation (Wards 7,8,9,10,11,12,13,14)	**No allocation**		
Dordrecht Water and sanitation services upgrade projects (total)	**R10 437 180**	**R9 000 000**	**R18 000 000**

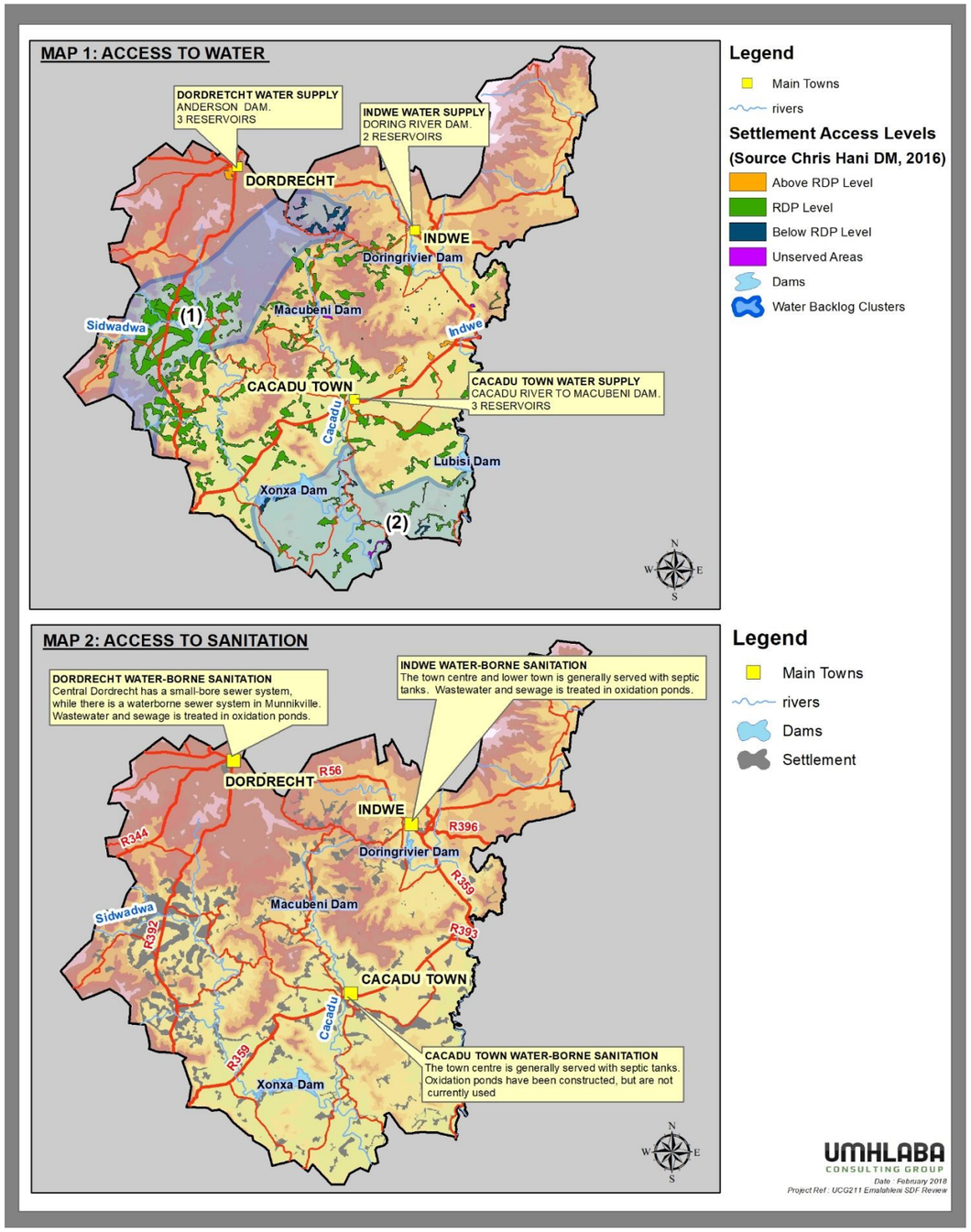
WATER SERVICES INFRASTRUCTURE GRANT Cluster 2 Water Backlog			
CLUSTER / VILLAGES	**TOTAL COST**		
	2017/18	**2018/19**	**2019/20**
Cluster 2: Phase 2: Jiputa/Mahkikhi; Emazimeni, Emaqwwathini, Noluthando/ Emagefaneni; Lukhavana	R13 547 837	R1 000 000	-
Cluster 2 Regional Scheme 1 – 1B: Phase 1 Gcina; Qumbu; Hala; Mbetheni; Kuliweni; Xhibeni; and Lokishini		R20 000 000	R15 000 000
Gqebenya Small Farms Interim Water Supply		R6 500 000	R4 500 000
Mdeni Interim Water Supply	R5 544 000	R4 612 954	-
Cluster 2 Water Backlog Proj. – Reg. Scheme 3: Luthuthu Water Supply		R1 500 000	R6 730 888
Cluster 2: Water backlog Proj. – Reg. Scheme 3: Phase 1C		R8 000 000	R7901 492
Cluster 2 Water backlog Proj. – Reg. Scheme 3: Phase 1D		R7 500 000	R7 417 620
Refurbishment of Dordrecht water treatment works		R5 700 000	
Water Conservation and Demand Management at Dordrecht		R 6 400 000	
TOTAL	**R19 091 837**	**R16 212 954**	**R41 550 000**

Backlog eradication is not the only substantial challenge facing the Chris Hani District Municipality, ongoing refurbishment and maintenance is a priority for sustainable water services delivery

Service Infrastructure -Implications:

- *The highest backlogs with regard to access to sanitation and water are found in the former Transkei part of the Municipality. A priority area for basic service provision*
- *The upgrading a road infrastructure is noted as a priority. Good road infrastructure is needed in order to access other services and facilities.*

Plan 6.1: Access to Water and Sanitation



6.3 Roads and Infrastructure

The various categories of roads are summarised as follows:
Trunk roads - 66.27 km
Main roads - 97.43 km
District roads - 658km
Access/minor roads: - 313km

The entire road network of mainly gravel roads is generally in poor conditions and need upgrading and maintenance. The R56 route that runs through Dordrecht and Indwe towards Elliot in an east-west direction is now a national responsibility. SANRAL is the responsible agent.

6.4 Railway Network

The light density railway line between Sterkstroom - Dordrecht - Indwe - Maclear is currently being utilised at 8% of capacity for transportation of general freight commodities and timber. There are problems with carrying capacity. There are considerations to re-open the railway line from Dordrecht to Indwe / Sterkstroom, for the transportation of coal.

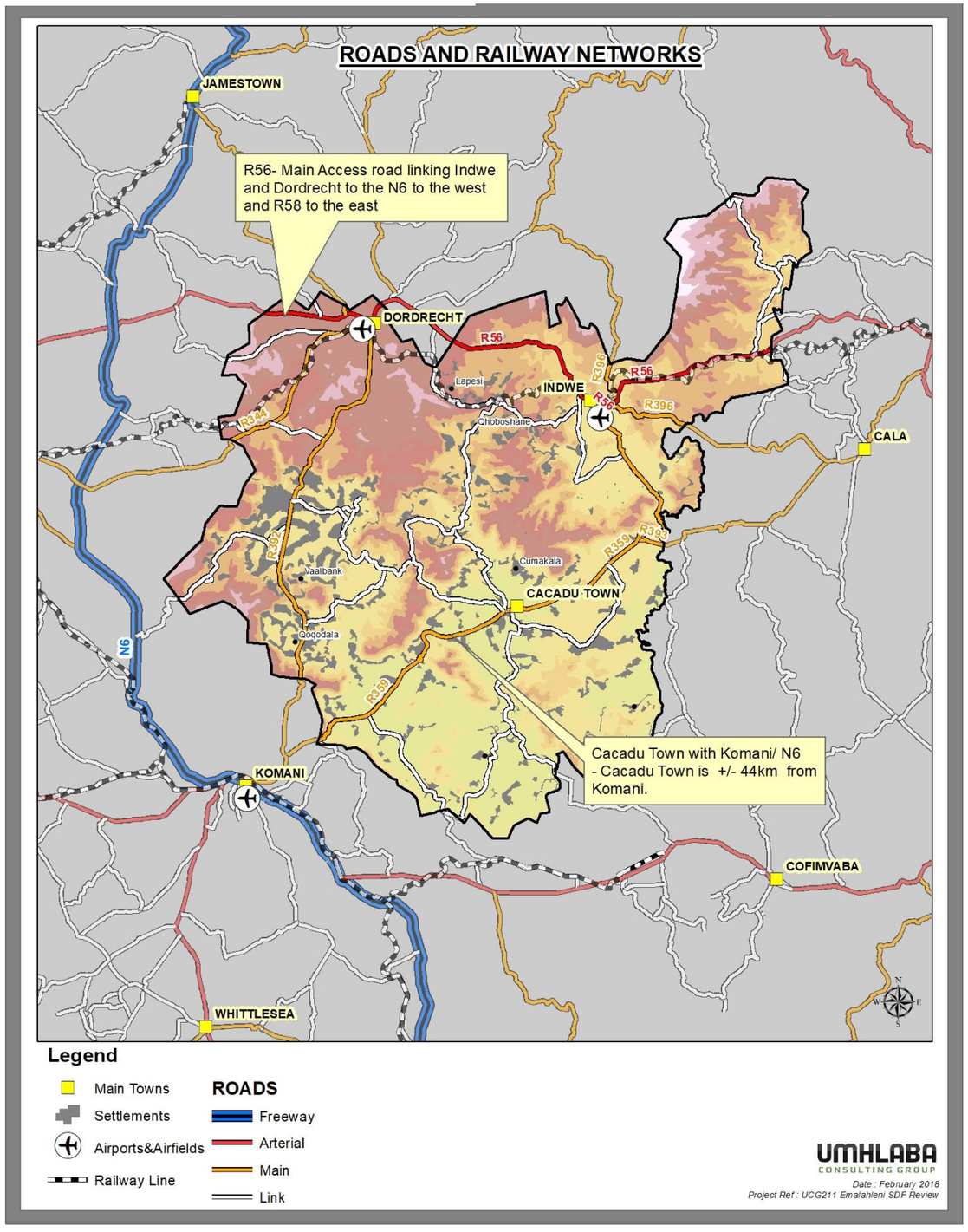
6.5 Airports/Airstrips

There is an airstrip located just south of Indwe town (31°29'7.32"S, 27°21'1.81"E) and in Dordrecht (31° 22' 60S 27° 1' 60E)

6.6 Public Transport

The public transport system is not well developed in the Municipal area. The public transport service is mainly offered by private taxi owners. Taxi and bus services in Emalahleni Local Municipality are generally not adequate

Plan 6.2: Roads and Railway Networks



6.7 ELECTRICAL NETWORKS

Eskom has planning in place to develop their network ultimately to all areas of Emalahleni. According to the recent Emalahleni IDP 2017-2022, the current electricity coverage is 98 % leaving a household connection backlog of 2%.

6.8 REFUSE REMOVAL / WASTE MANAGEMENT

Formal waste collection service is generally limited to the urban areas of Cacadu Town and Indwe / Dordrecht. Households in the rural areas improvise by either creating their own dumps in their own yards or by means of illegal dumping sites.

An Integrated Waste Management Plan was developed and adopted by council on the 27th October 2016, the DEDEAT on the 16th June 2017 and is awaiting approval from the Dept. of Cooperative Governance and Traditional Affairs.

As indicated in the 2017-2022 Emalahleni IDP, Emalahleni Municipality has obtained a permit to construct and operate a Regional Landfill Site in Cacadu Town. This development also entails the construction of a Transfer Station at Indwe, Dordrecht and Cacadu Town, which are at 85 % construction completion. The landfill site at Indwe is deemed too small to be licensed and will be incorporated into the regional system.

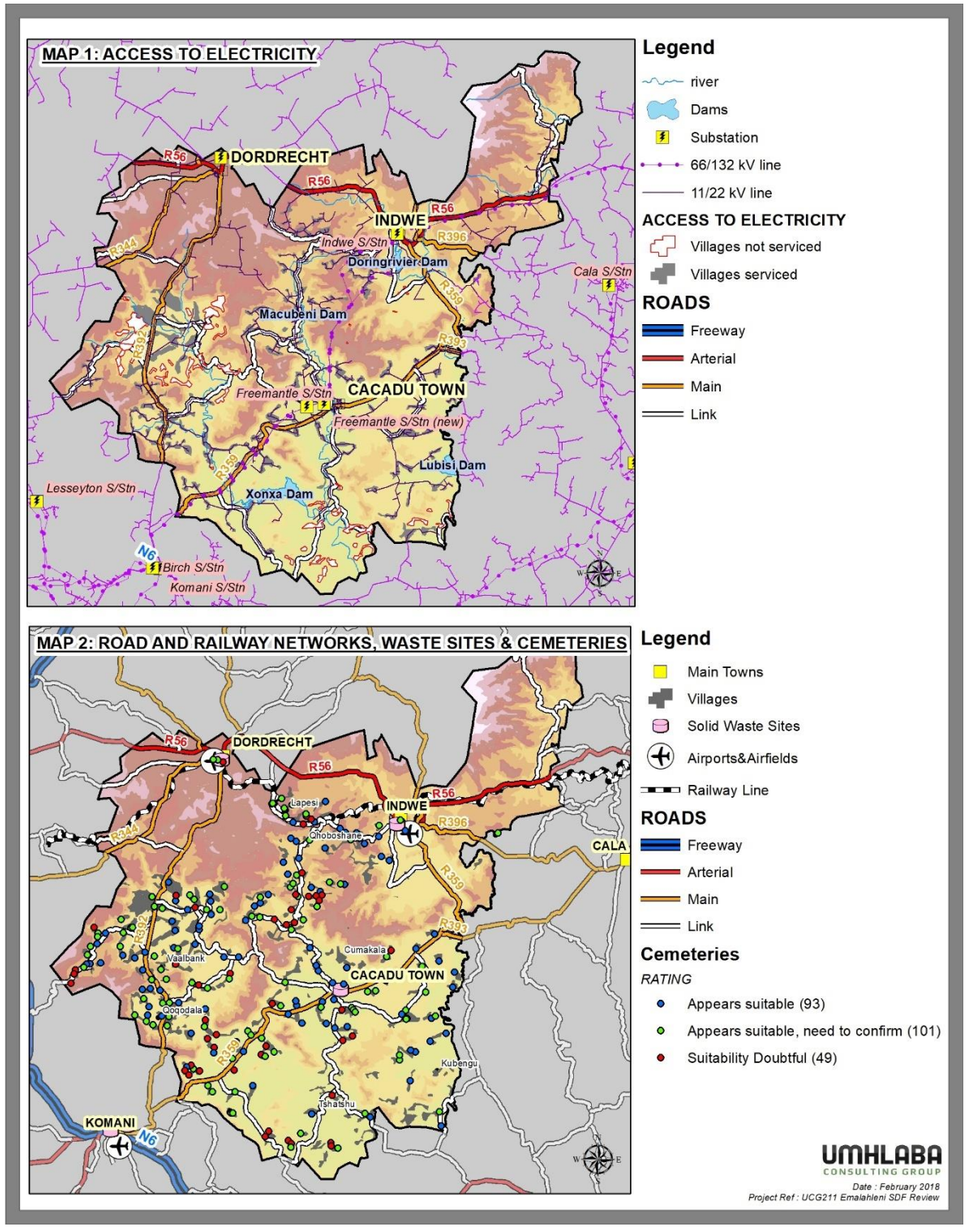
- The DEDEAT allocated R1,6 million in the 2014/2015 financial year to ensure compliance of the sites to required Norms and Standards. Fencing of Cacadu Town Landfill site is complete and at the time of the IDP Process, a guard house was being set up for site access control.
- At a municipal level, **Census 2011** statistics indicates the following:

Table 6.4: Access to Municipal Waste Collection Services

Refuse removal per household:	No. of households	%
Unspecified/other	1303	5.3
Removed by local authority, once /. Week	2637	10.6
Removed by local authority, less often	165	0.7
Communal Refuse Dump	528	2.1
Own Refuse Dump	20165	81.3

Illegal Dumping sites: Drop-off centres have been constructed in three units to eradicate illegal dumping. These centres together with a Clean-up campaign have decreased illegal dumping activity. Illegal dumping is most prevalent in Cacadu Town and Indwe.

Plan 6.3: Access to Electricity, Road, Railway, Waste sites and Cemeteries



6.9 CEMETERIES

There are approximately 250 cemeteries in Emalahleni. Two formal cemeteries are in operation in Indwe, one in Dordrecht and two in Cacadu Town. Most of the cemeteries are informal in the rural areas. The locations of at least 49 of the rural cemeteries are deemed unsuitable due to either proximity to a watercourse/water source or topography.

A Cemetery layout plan has been developed for Cacadu Town and was to be submitted to Council for adoption at the time of the IDP 2017-2022 process. The IDP refers to future plans for the substitution of the cemetery register with Cemetery Management Software which will also encompass grave digging for Indwe and Cacadu Town. The construction of parking bays and storm-water channelling had been implemented at the time of the IDP 2017-2022 process.

6.10 SOCIAL FACILITIES

6.10.1 Health

There are currently 29 medical and primary health care facilities in the Emalahleni municipality.

Table 6.5: Heath Facilities in the Municipal; area

Name	Type
Bilatye	Clinic
Bolotwa (Cofim)	Clinic
Boomplaas	Clinic
Dordrecht Clinic	Clinic
Guba	Clinic
Hlala Uphilile	Clinic
Lanti	Clinic
Maqashu	Clinic
Mhlanga	Clinic
Mkapusi	Clinic
Mt Arthur Clinic	Clinic
Ndonga	Clinic
Nompumelelo	Clinic
Philani Gateway	Clinic
Qoqodala	Clinic
Rodana	Clinic
Swartwater	Clinic
Tsakana	Clinic
Tsembeyi	Clinic
Vaalbank	Clinic
Xonxa	Clinic
Matyantya Clinic	Clinic
Macubeni Clinic	Clinic
Agnes Rest Clinic	Clinic
Queen Nomesi Clinic	Clinic
Ngonyama CHC	Community Health Centre
Dordrecht Hosp	District Hospital
Glen Grey Hosp	District Hospital
Indwe Hosp	District Hospital

Health services in the municipal area are competence of the District and Province. The Emalhleni IDP 2017/2022 indicates that the department of Health is currently implementing the following programmes in the Emalahleni Municipal area:

- HIV/ Aids monitoring and management Mother Child Women's health: The Emalahleni Local Aids Council is coordinated by community services and Ward Aids structures have been established in all wards of the LM. The Emalahleni HIV/AIDS Strategy Review was adopted by council in 2015.
- Other programmes include: The Ward Men's Sector Forum and Initiation Committee active in Wards 3,6,11 and 17
- The anti-poverty War Room structures in all wards of the LM and training of this programme has taken place in Wards 5,4, and 6.
- Local Drugs Action Committee has been established for the LM

6.10.2 Safety

There are five police stations and a one prison located in the municipal areas. (See Plan 6.4, Map 1, following).

The police stations are:

1. Dordrecht
2. Ida
3. Indwe
4. Cacadu Town
5. Glen Grey

The 2017-2022 IDP indicates that the municipality is in the process of establishing a unit designated to deal with matters relating to traffic control, general community safety and security services.

A Driving license and Testing Centre has been operational in Cacadu Town since 2016. A vehicle testing facility is earmarked for future development. A community safety related Forum has been established and meet every quarter. Crime prevention awareness campaigns are conducted annually.

6.10.3 Education

There are approximately 173 schools servicing Emalahleni LM. The distribution of these schools is illustrated in Plan 6.4, Map 2. The main challenges raised by participants in the IDP process relate to issues of:

- Classroom backlogs
- Ineffective scholar transport system
- Inability of rural schools to attract skilled and appropriately competent educators or science subjects. Poorly performing schools in terms of their matric pass rates resulting in trickle down problems for the labour market and local economy

The figure below gives a picture of the levels of literacy attainment in the local labour market. Levels of educational attainment are very low. This situation presents a major challenge for future economic growth because essential skills for growing the economy are limited and will be further reduced by this situation in which 23% of population has no schooling at all.

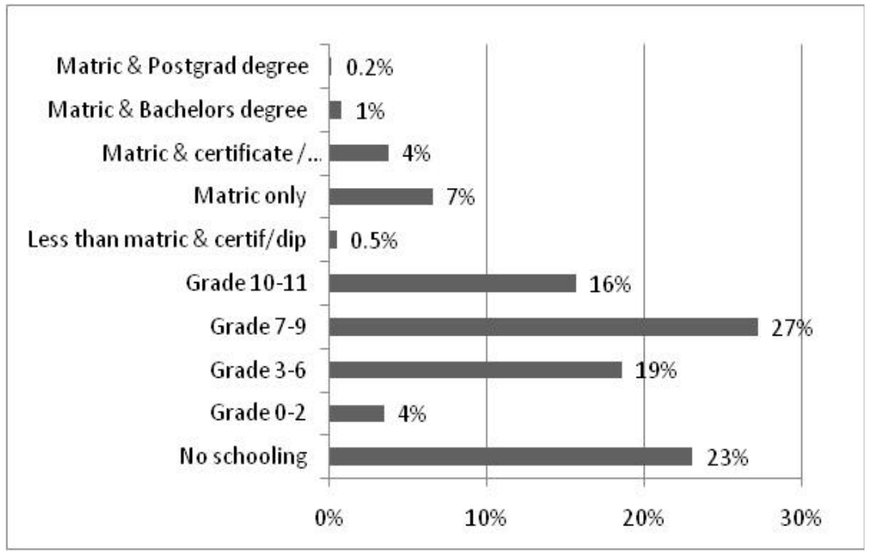
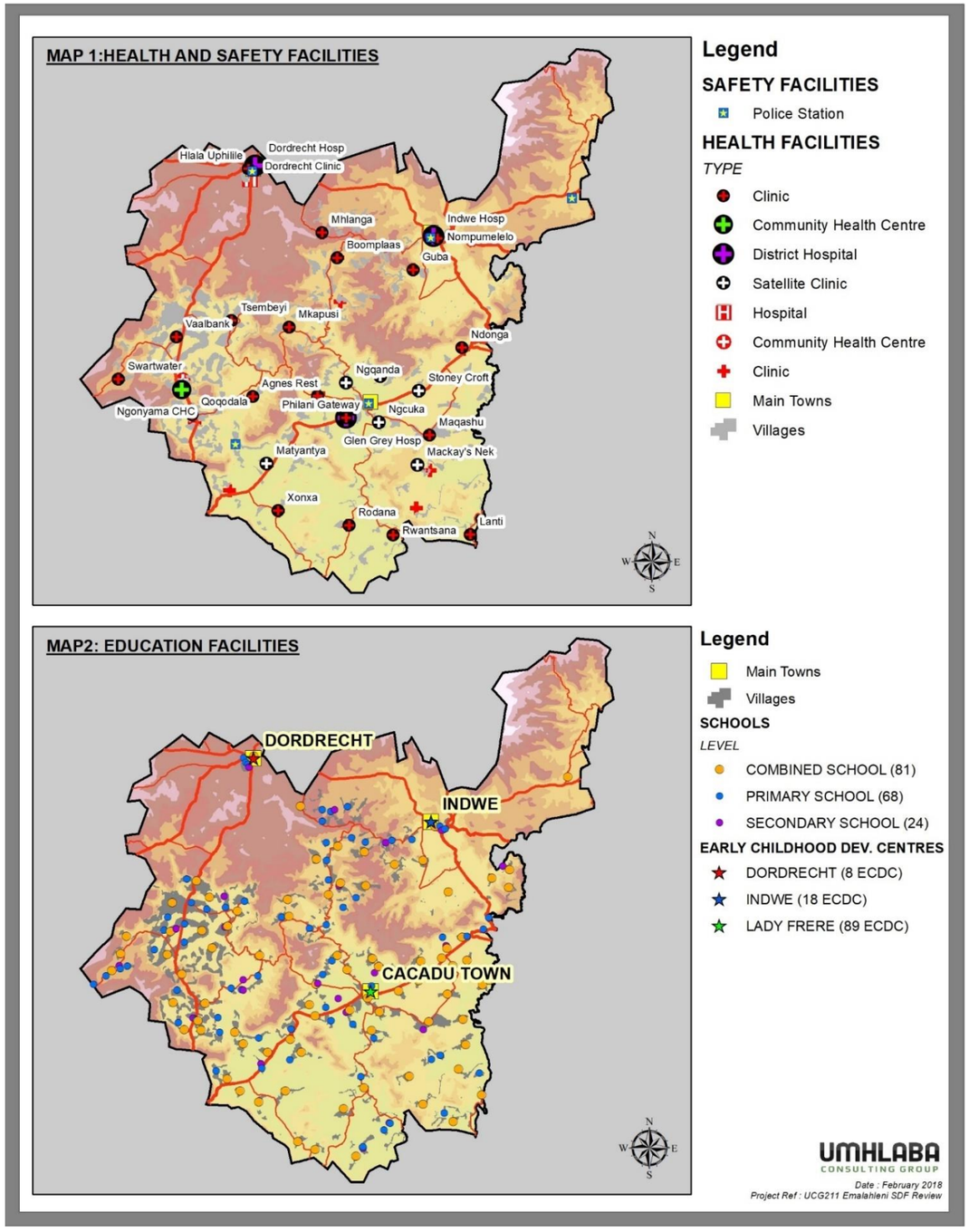


Figure 6.1: Level of Education

6.10.4 Early Childhood Development Centres (ECDC)

Emalahleni Local Municipality, together with the Dept. of Social Development and CHDM Municipal Services, provide support to Early Childhood Development Centres, aimed at promoting a healthy and safe environment for children. The 2017-2022 IDP cites that there are 115 ECDC's in the municipal area. Indwe has 18 ECDC's, Dordrecht has 8 ECDC's and Cacadu Town has a total of 89 ECDC's. The ECDC's have been assessed and require varying levels of maintenance repair and upgrading.

Plan 6.4: Health, Safety and Education Facilities



7. DEMOGRAPHIC PROFILE

7.1 POPULATION DISTRIBUTION

Emalahleni municipality has an estimated population of 120 758 people, comprised of 30 189 households (Census 2011). This represents an estimated 4 persons per household. The population density is estimated to be 35 people per square kilometre. However, it should be noted that this average density varies across specific place areas when comparing especially urban and rural areas. Emalahleni LM is comprised of approximately 238 settlements areas. Census 2011, indicates that approximately 191 of these settlements (80%) have less than a 1000 inhabitant of which 133 of these settlements (55 % of total settlements) accommodate less than 500 inhabitants.

A recent study, *Emalahleni LM Socio Economic Review and Outlook, 2017 (ECSECC)*, cites a population size of 125 000 people living in Emalahleni Municipal area in 2016 and states that between 2006 and 2016 the population growth averaged 0.64% per annum. This is slightly higher than the average annual growth rate of 0.46% for the Chris Hani District Municipality. This study further states that, Emalahleni's population is projected to grow at an average of 0.9 % from 125 000 in 2016 to 130 000 in 2021.

7.2 RURAL VS URBAN

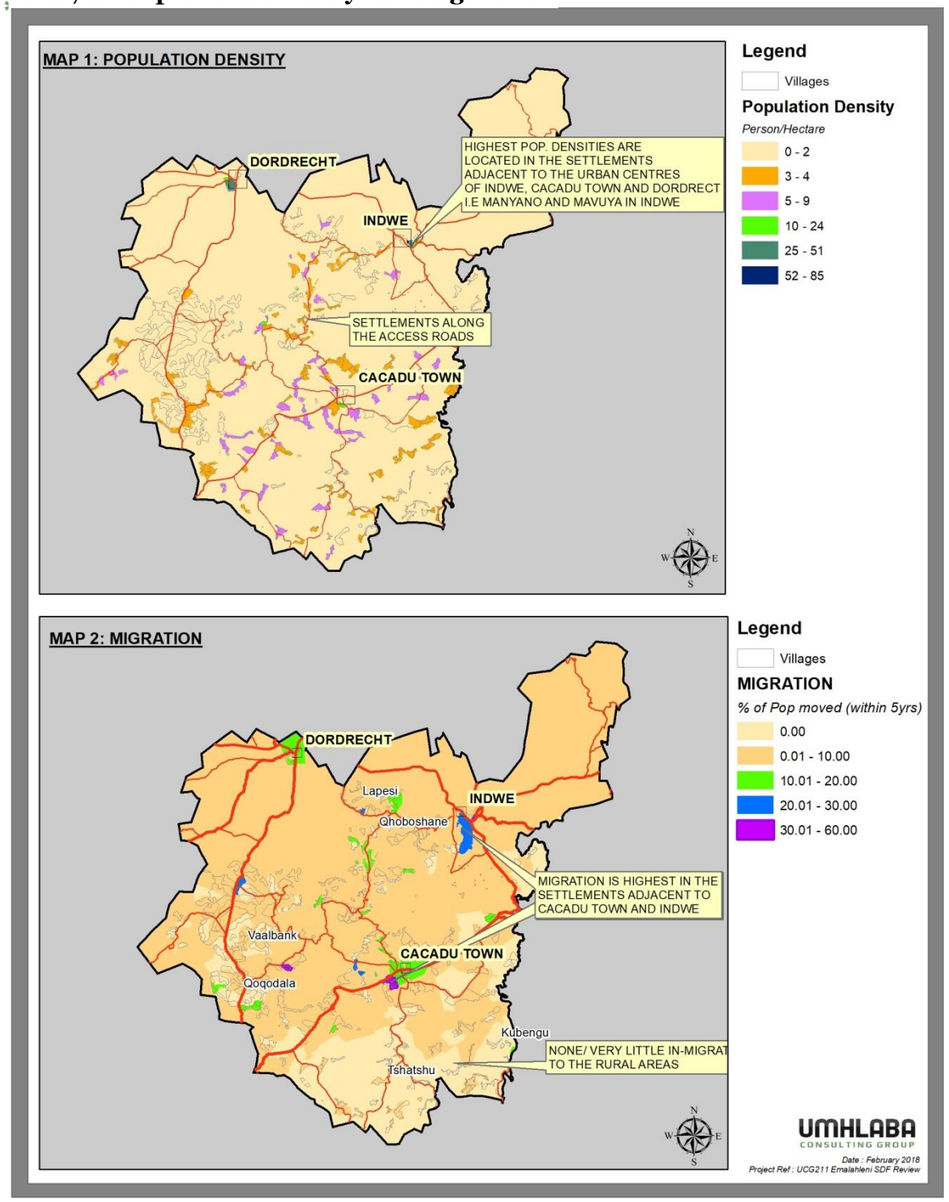
Emalahleni is a rural municipality with a minority of 18% of its households residing in the urban centres and peri-urban areas of Cacadu Town, Indwe, Dordrecht, Glen Grey, Tyoksville etc.

With the majority of households in rural villages, it will be imperative for the council to adopt effective strategies for rural development as a matter of priority.

7.3 MIGRATION

The Emalahleni SDF 2013-2017 indicates that the areas experiencing the highest in-migration rates are Cacadu Town (Gugulethu) and Indwe. Over 30% of the residents of these areas have been living there for less than 5 years. On the contrary, the rural areas especially those of the former homelands have experienced little or no in-migration. This highlights the current trend of urban migration. The result of this urban migration is that the actual growth in urban areas might be determined by in-migration and not by the natural growth rate. An implication of this urbanisation is added pressure on housing provision and related services in urban nodes.

Plan 7.1: Population Density and Migration

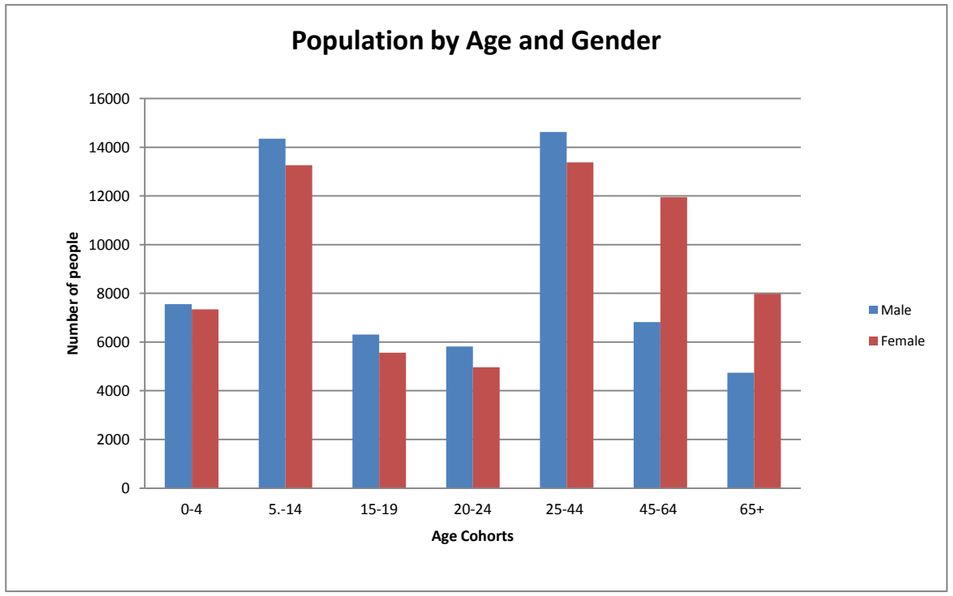


7.4 GENDER AND AGE BREAK DOWN

Figure 7.1 below, indicates a significantly higher number of females to males in the older age groups of Emalahleni's population. The male/female split in the total population is 48 % male to 52 % females. This calls for dedicated programmes of integration and incorporation of women in key planning and decision-making roles of our municipality.

The figure below gives a comparative view of the age distribution of the Emalahleni LM. It illustrates that Emalahleni population is very youthful and comprised of a large number of infants and children of school going age. The high percentage of youth (0-14 years) and persons aged 65 years and older account for two thirds of the population (64%). Census 2011 indicates a dependency ratio of 82 % that are potentially reliant on the state for social grants and pensions. The ECSECC Socio Economic Review (2017) indicates an increase in this figure to 90,5 % in 2016. Early Childhood Development Programmes, Youth development, learner support programmes and other special programs would have to be prioritised in order to deal with the needs of the majority of the population. Refer to Section 6.4 below.

Figure 7.1: Population by Age and Gender Distribution



Source: IHS Markit Regional eXplorer version 1156 (ECSECC Socio Economic Review 2017)

7.5 LEVELS OF EDUCATION

Education is important to the economic growth in a country and the development of its industries, providing a trained workforce and skilled professionals required.
According to SA Stats (Census 2011), a significant minority of the population (19 % aged 20 years +) have no formal education. Four percent (4%) of those aged 20+ have a higher education. Eleven percent (11 %) of persons aged 20 years and older has completed matric. This indicates that a high proportion of the economically active population have little or no education, limiting the contribution that the population can make to the economic growth and development of the area.

Figure 7.2: Level of Education (20 years +)

Level of Education (20 years+)	2011		2016	
	No. of People	%	No. of People	%
No Schooling	11 852	**18.8**	7 203	**12.3**
Some Primary	18 648	**29.5**	12 925	**22**
Completed Primary	4 225	**6.7**	3 511	**6**
Some Secondary	18 841	**29.9**	23 640	**40.2**
Grade 12/Matric	6 932	**11**	9 183	**15.6**
Higher	2 320	**3.7**	1 939	**3.3**
Other	158	**0.3**	333	**0.6**

Source: IHS Markit Regional eXplorer version 1156 (ECSECC Socio Economic Review 2017)

7.6 FUNCTIONAL LITERACY

Functional Literacy is defined as the number of people in a region that are 20 years and older and have completed at least their primary education (i.e. grade 7). Functional literacy describes the reading and writing skills that are adequate for an individual to cope with the demands of everyday life - including the demands posed in the workplace. Functional literacy enables individuals to enter the labour market and contribute towards economic growth thereby reducing poverty. A total of 52 000 individuals in Emalahleni Local Municipality (63,25 %) were considered functionally literate in 2016.
A higher literacy rate is often associated with higher levels of urbanization, for instance where access to schools is less of a problem, and where there are economies of scale. From a spatial breakdown of the literacy rates in South Africa, it is perceived that the districts with larger cities normally have higher literacy rates. Emalahleni LM has the

lowest literacy rate in the Chris Hani District (ECSECC Socio Economic Review, 2017).

Demographics -Implications:

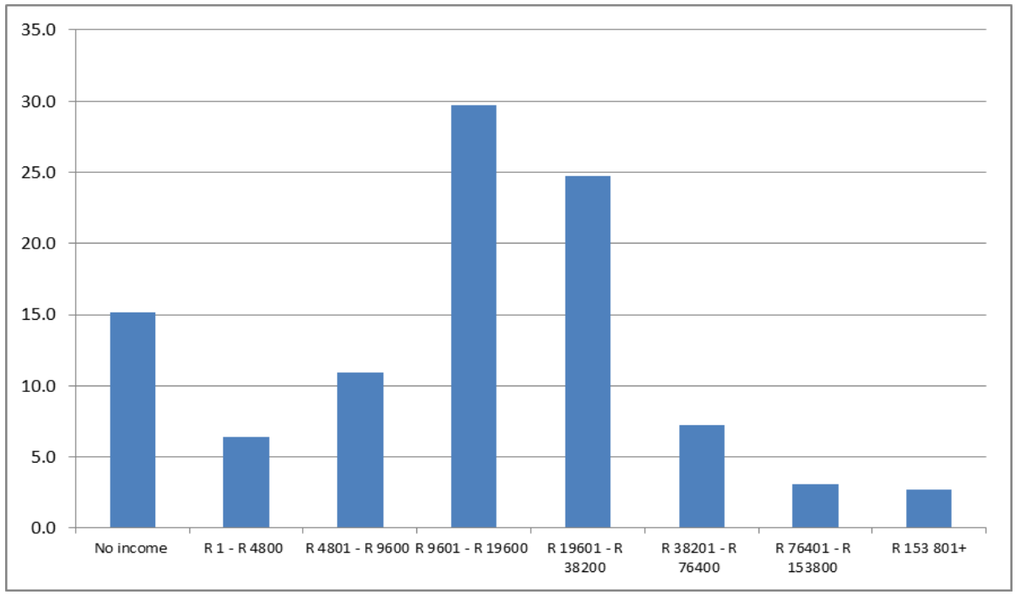
- *Majority of the Emalahleni population reside in rural villages and requires focussed development planning in these areas.*
- *There is however evidence of Urban Migration putting more pressure on the infrastructure and services of the towns*
- *Low education levels of the potentially economically active population limit their meaningful contribution to the economic growth of the area.*
- *The high percentage of youth in the population makeup of the Municipality heightens the need for Early Childhood Development Programmes, youth and skills development and support programmes, etc.*
- *Access to Education programmes, schools and related infrastructure is imperative to increasing literacy levels and competency to meaningfully contribute to the economic growth of the area.*

8. SOCIO ECONOMIC PROFILE

8.1 HOUSEHOLD INCOME

Annual household income distribution provides a useful indicator for levels of economic development and exposure to poverty. A large number of households in Emalahleni can be deemed as indigent with gross monthly incomes of less than R1500. Figure 1 below illustrates the annual household distribution per income group for 2011. The highest percentage of households (30%) earn between R9601- R19600 per annum (R800 –R1600 per month).

Figure 8.1: Households distribution (%) per income group (2011)- Emalahleni LM

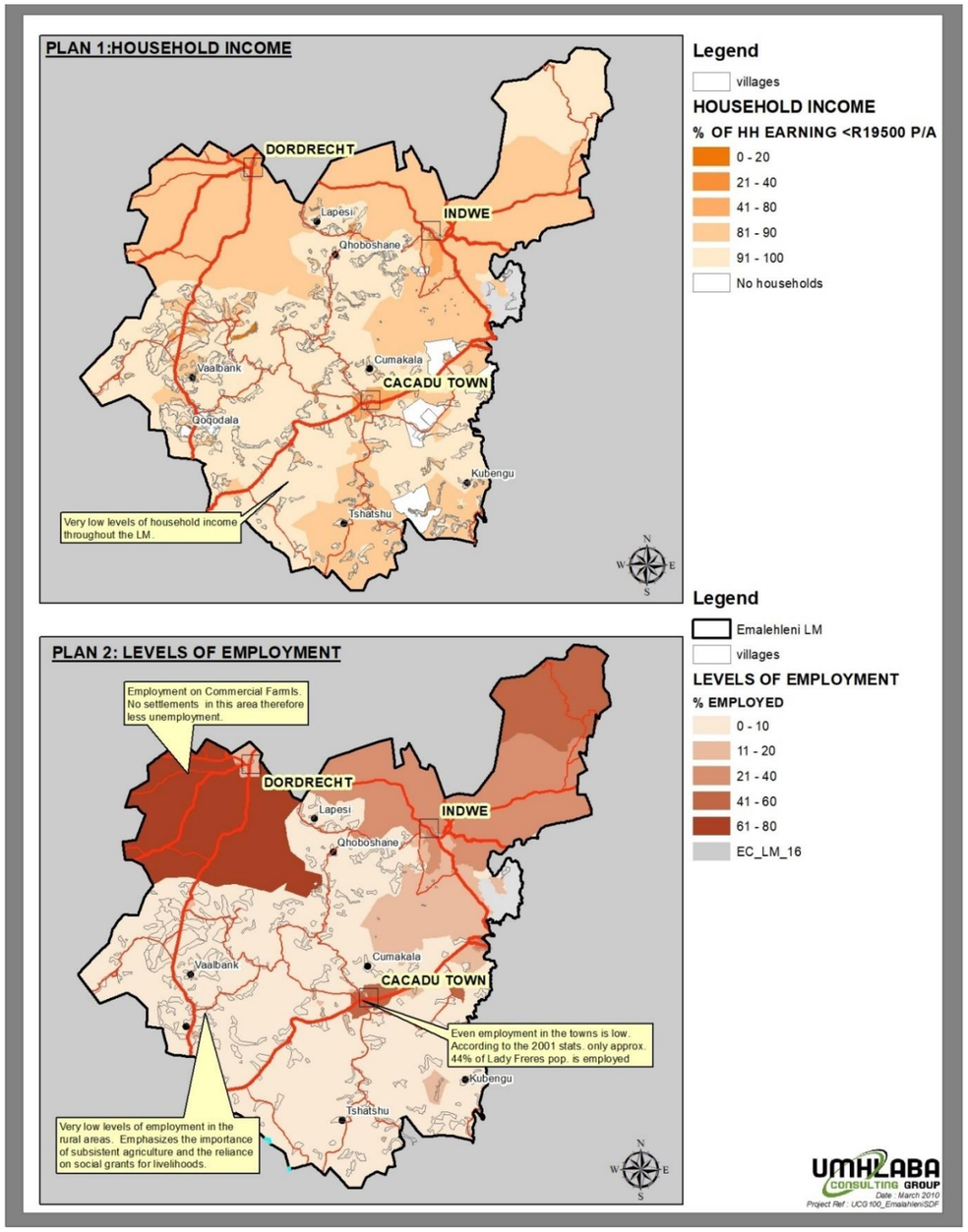


Source: Census 2011 Stats SA

8.2 EMPLOYMENT

Employment and unemployment levels are useful indicators for effective growth in the economy. *IHS Market Regional eXplorer version 1156*, indicates that in 2016, the unemployment rate in Emalahleni Local Municipality (based on the official definition of unemployment) was 37.99 %, and that employment within Emalahleni increased annually at an average rate of 2.01% from 2006 to 2016. Census 2011, indicates that the majority (55.3 %) of economically active youth (aged 15 – 34 years) are unemployed, suggesting that the majority of the population is dependent on social grants and subsistence-based living.

Plan 8.1: Household Income and Levels of Unemployment



8.3 POVERTY

Definition: *The upper poverty line is defined by StatsSA as the level of consumption at which individuals are able to purchase both sufficient food and non-food items without sacrificing one for the other.*

Using this definition, IHS Markit Regional eXplorer version 1156, indicates that in 2016, two thirds of the population of Emalahleni (71 % / 88 300 people) were living in poverty. This is 4.59% lower than the 92 500-people recorded living in poverty in Emalahleni in 2006.

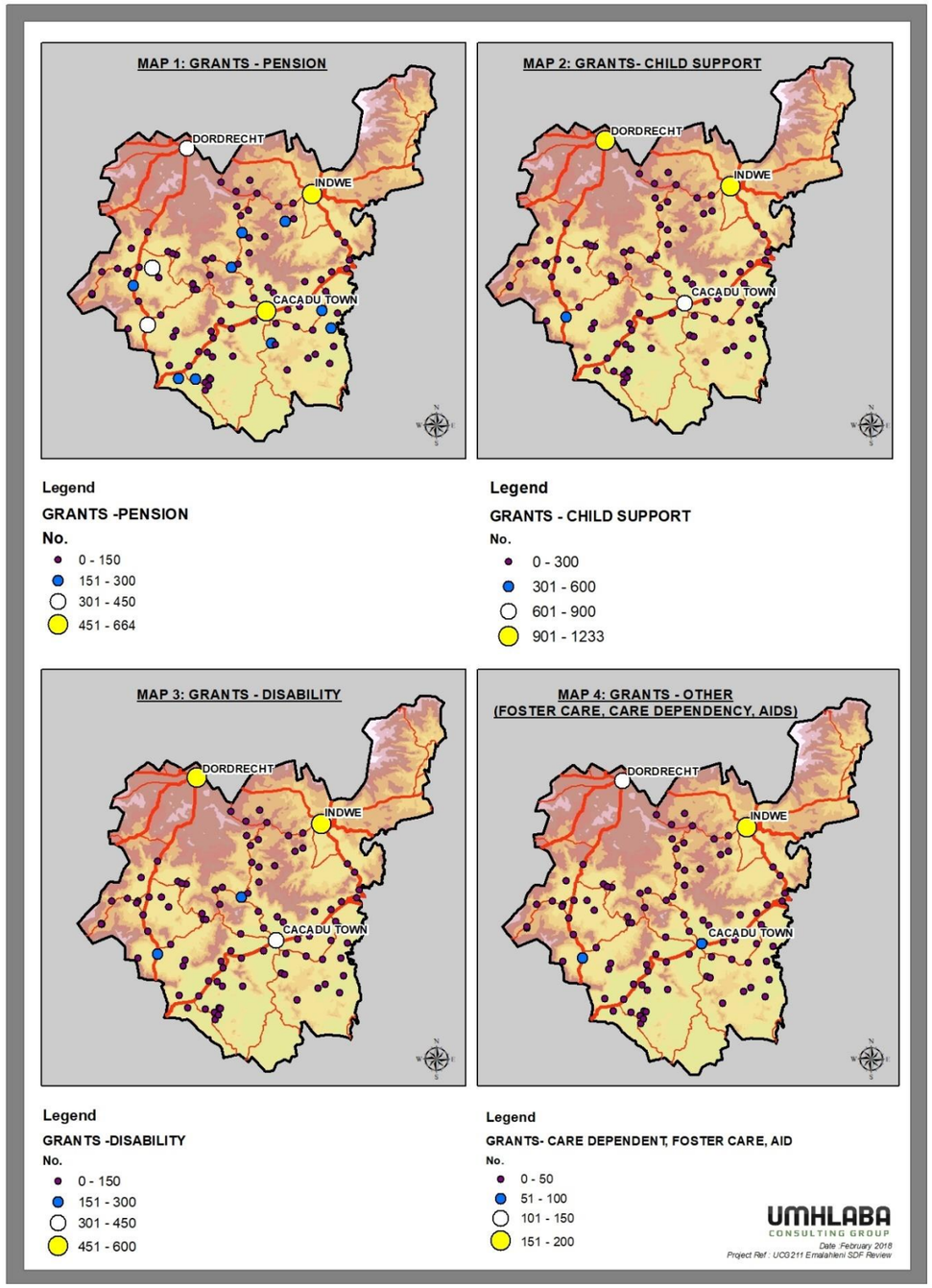
8.4 SOCIAL GRANTS

SASSA records indicate that a total of 48 980 grants (Grant in Aid, Old Age grants, Child support, etc), were allocated each month to inhabitants throughout the Emalahleni LM in 2009, which represented every 2.5 persons in the population at the time. Updated figures at a Municipal level were not available at the time of writing. Updated Census figures ((201-2011) are available at Provincial Level.

Socio Economics-Implications:

- ***High unemployment and poverty***
- ***High dependency on Social Grants***
- ***The nature of poverty in areas in Emalahleni needs to be understood at the community level to ensure appropriate development and prioritisation of funding***
- ***High dependency on the informal economy and subsistence living***
- ***Emalahleni is an area of social transfers***

Plan 8.2: Distribution of Social Grants (2009)



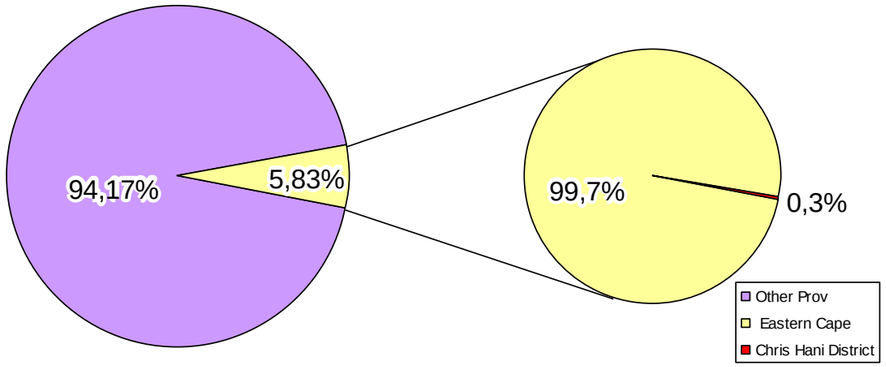
9. ECONOMIC PROFILE

9.1 EMALAHLENI'S CONTRIBUTION TO THE NATIONAL ECONOMY

The strength of a country's economy can be measured by analysing a few key indicators. These include:

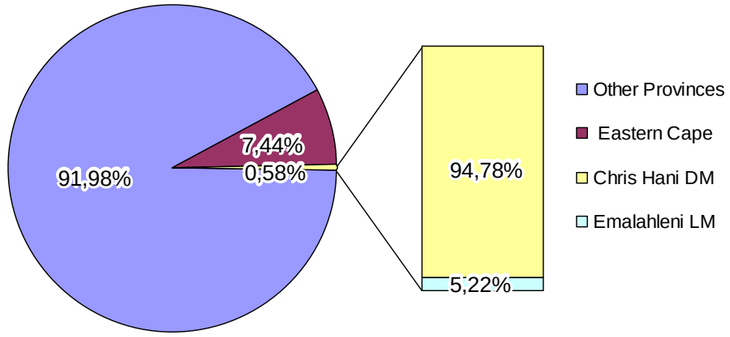
- Imports and Exports
- Economic Output
- Contribution to Gross Value Added (Tax)

9.1.1 Imports and Exports



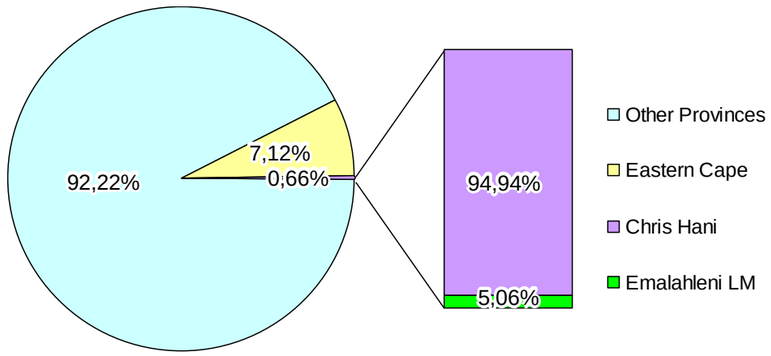
The total value of goods imported by South Africa in 2008 was R721 Billion. The Eastern Cape imported 5.83% of those goods, valued at R42 Billion. The Whole of Chris Hani DM only imported goods to the value of R130 745 968, which is 8,3 % of the total. South Africa exported goods to the value of R636 Billion in 2008, the contribution from Chris Hani as a district was 0,56%

9.1.2 Economic Output



The economic output of total production for 2008 was R2,752,117m. The Eastern Cape contributed 8% valued at R220,734m. Emalahleni LM contributed 5,2% to Chris Hani DM, which in turn contributed 0,58% that of the National output.

9.1.3 Contribution to VAT



The total for General Value Added Tax for 2008 in South Africa was R1,159,313m. The Eastern Cape contributed 7,78% valued at R90,162m. Emalahleni LM contributed 14,45% to Chris Hani DM, which contributed 6,486m, which is 0,66% that of the National figure.

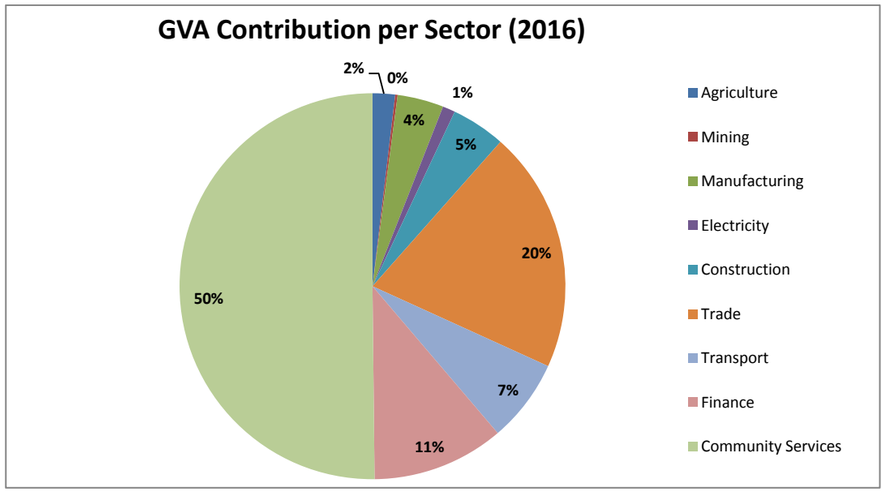
9.2 GROSS VALUE ADDED

The Gross Value Added (GVA) is a measure of output (total production) of a region in terms of the value that was created within that region. The sector contribution of each individual producer, industry or sector to the economy is measured through Gross Value Added (GVA). Gross Value Added (GVA) by Region is the GVA for a specific geographic area. The link between GVA and GDP can be defined as GVA plus taxes on products less subsidies on products equals GDP (GVA = GDP - taxes on products + subsidies on products). This is the value of the total economic contribution of each sector as listed in the legend below. The towns of Cacadu Town, Dordrecht and Indwe are the main contributors to the GVA of Emalahleni, as indicated by the size of their charts.

Sectoral Contributions: The Community Sector which includes the government services, is the largest contributor to Emalahleni's GVA. This sector contributes towards half the Municipalities GVA, highlighting the lack of diversity in the economy. The sector that contributes the second most to the GVA of the Emalahleni Local Municipality is the trade sector at 20.3%, followed by the finance sector with 11.0%.

The primary sectors of agriculture (2%) and mining (0,12 %) contribute less than 5% of the formal economy. There are opportunities for these sectors to grow.

Figure 9.1: Contribution per sector to the Emalahleni LM (2016)



Source: IHS Markit Regional eXplorer version 1156 (ECSECC Socio Economic Review, 2017)

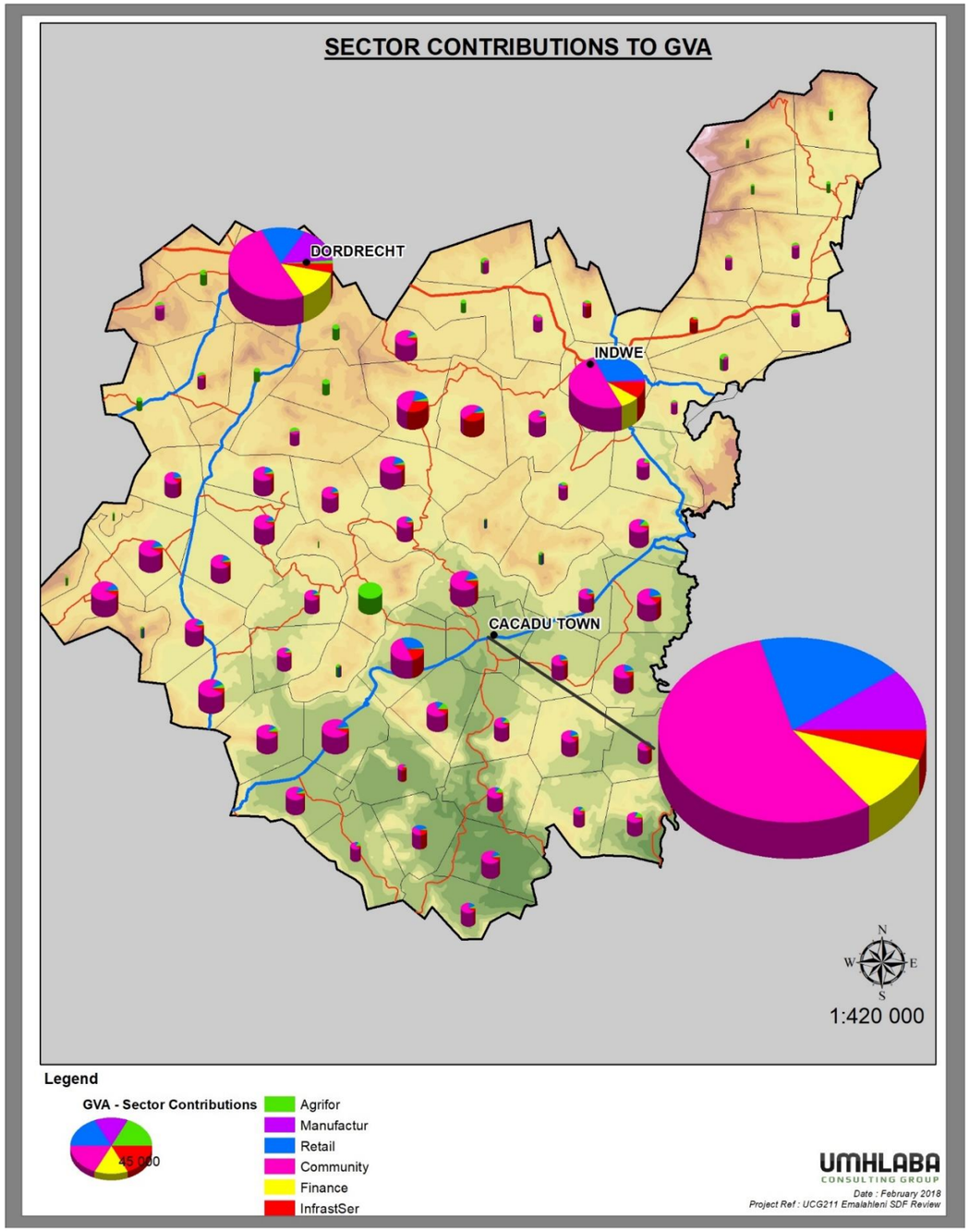
Cacadu Town is the hub of the retail, commercial and manufacturing sectors in the Municipality. The town contributes to more than half the Municipalities GVA, highlighting the importance of developing and maintaining infrastructure and links to Cacadu Town. According to ECSECC 2017 Socio Economic Review and Outlook for Emalahleni, the Emalahleni Municipality contributed the most to the GVA of the Chris Hani District Municipality with a total of R1,63 billion or 6,70 %

Table: 9.1: Geographic Distribution of GVA per Sector (as a %)

AREA	AGR	MINING	MANU.	RETAIL	FINANCE	COMM	INFRA.	TOTAL GVA
LADY FRERE	0	100	76	62	73	56	37	56
DORDRECHT	3	0	23	10	19	10	6	11
INDWE	0	0	1	10	7	5	9	6
REST OF LM	97	0	0	18	0	29	48	27

Source:CSIR 2010- Geospatial Analysis Platform and NSDP Spatial Profiles*

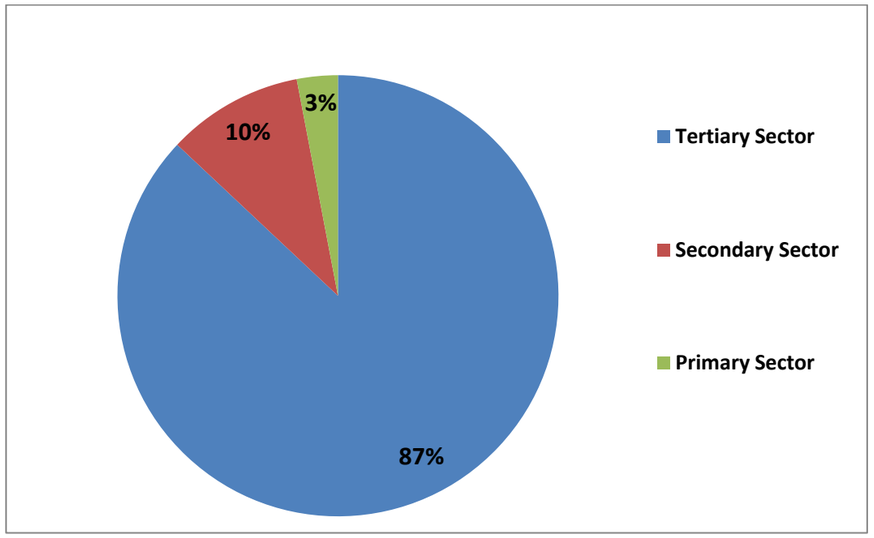
Plan 9.1: Sector Contributions to GVA



9.3 Economic Sector Analysis

Figure 9.2 represents the GVA by Aggregate Sector in Emalahleni Local Municipality from 2006 to 2016. The tertiary sector contributes the most to the Gross Value Added within the Emalahleni Local Municipality at 87.2%. This is significantly higher than the national economy (68.6%). The secondary sector contributed a total of 10.3% (ranking second), while the primary sector contributed the least at 2.5%.

Figure 9.2 Gross Value Added (GVA) by Aggregate Sector, ELM, 2016



Source: ECSECC: Emalahleni Local Municipality Socio Economic Review and Outlook 2017

9.3.1 Sector Forecasts: (ECSECC: ELM Socio Economic Review and Outlook 2017)

Primary Sector: Mining and Agriculture

The Primary sector in Emalahleni is expected to grow at an average annual rate of 3.03% between 2016 and 2021, of which the agriculture sector is expected to grow fastest at an average of 3.23% annually from R21 million in Emalahleni Local Municipality to R 24.6 million in 2021.

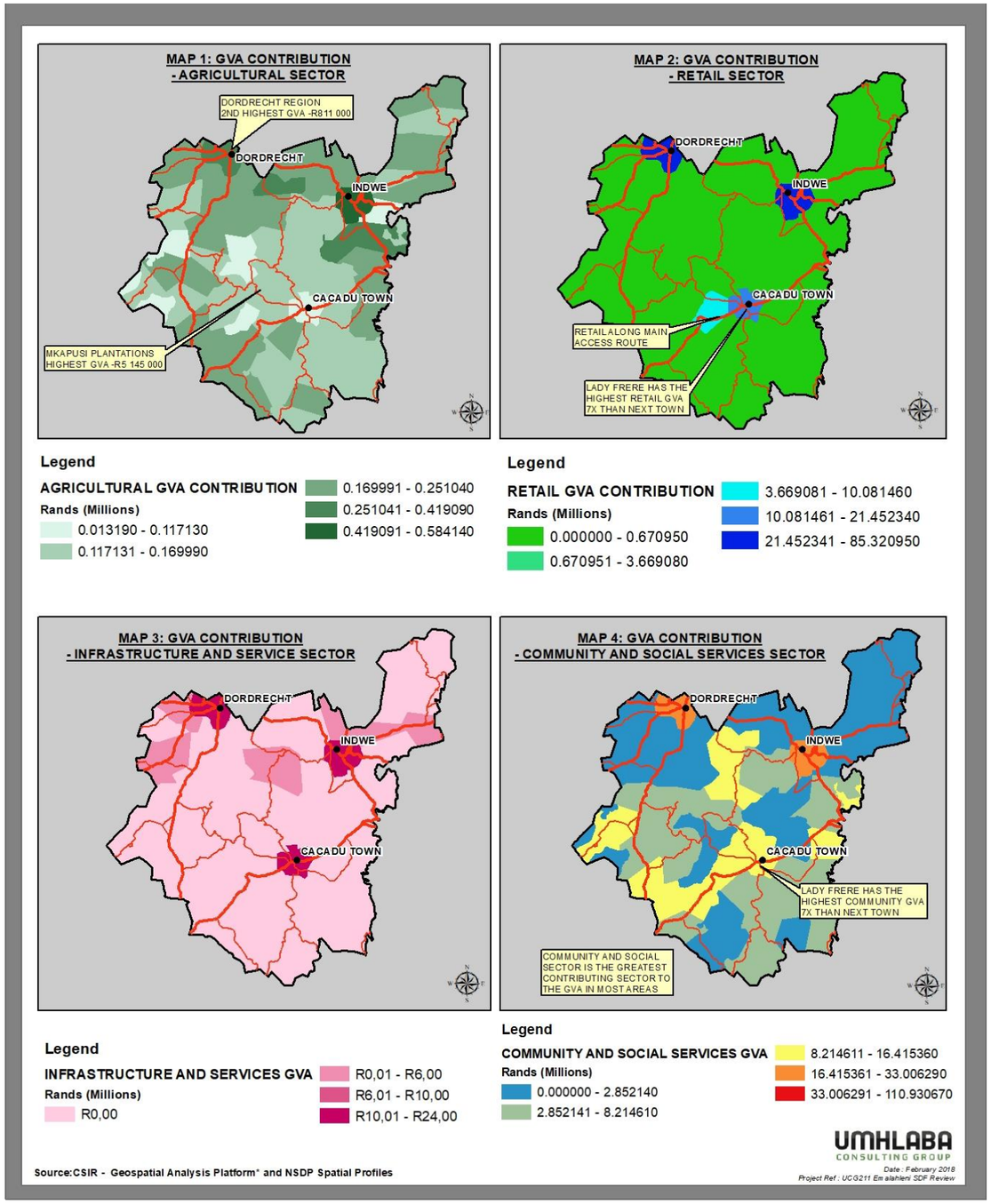
Secondary Sector: (manufacturing, electricity and the construction sector).
The Secondary sector is growing at 1.48% on average annually. The sector that is estimated to grow the slowest is the electricity sector with an average annual growth rate of 0.54%.

Tertiary Sector (trade, transport, finance and the community services sector).
The Tertiary sector is expected to grow at an average annual rate of 1.04% for the same period. The community services sector is estimated to be the largest sector within the Emalahleni Local Municipality in 2021, with a total share of 48.7% of the total GVA.

Economics-Profile Implications:

- *On both a District and National scale, Emalahleni's contribution to the economy is small. Emalahleni contributes less than 1% to the National GVA.*
- *Cacadu Town (formerly known as Lady Frere) is the hub of economic activity in the Municipality.*
- *Faster growth is expected in the secondary and tertiary sectors when compared to the primary sector. The agricultural sector is prone to very high volatility as a result of uncertain weather conditions, pests and other natural causes which are not considered in forecasts.*
- *In spite of its contribution to GVA, the community services sector is not an economic growth sector. This is due to the fact that the products that drive this sector are not tradeable and therefore do not result in increased economic output. As a result, they are unlikely to attract investment and by implication, cannot be relied upon to impact on unemployment.*

Plan 9.2: GVA Contributions per Sector



10. ECONOMIC SECTOR ANALYSIS

10.1 AGRICULTURE POTENTIAL

According to a study conducted by the ARC for Ruliv the following potential for Agriculture has been identified in Emalahleni Local Municipality.

- Wool Production
- Beef cattle in the central and south western areas
- Maize production north of the Xonxa Dam
- Sorghum production in the south east
- Sheep in most areas
- Lucerne
- Irrigation potential of 5500 hectares at the Xonxa and Lubisi Dams as well as irrigation at the Guba Farms.

10.1.1 Livestock

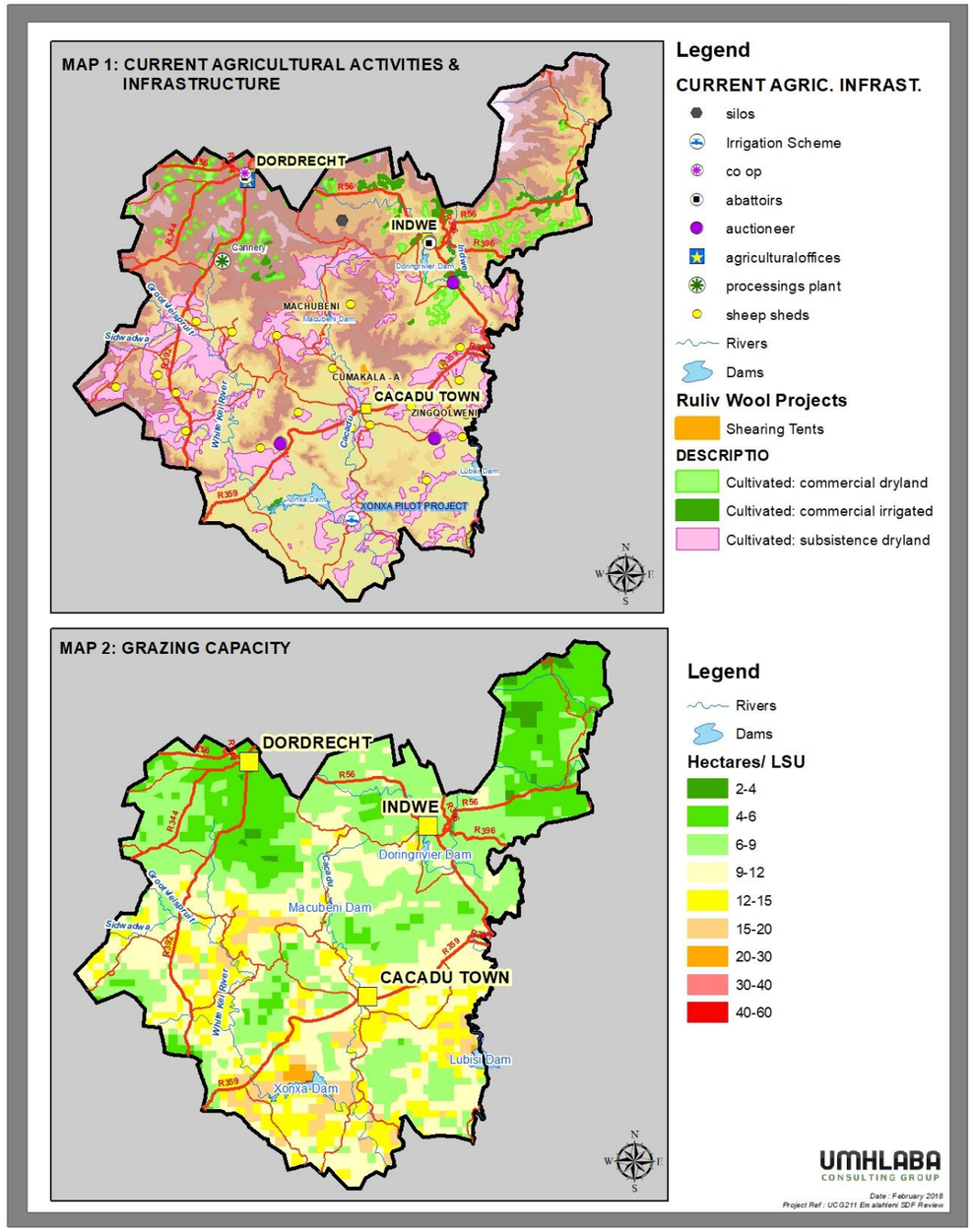
Emalahleni has approximately 21% of the Chris Hani District's cattle, 15% of its goats and 11% of its sheep. The 2017-2022 IDP cites that the ELM 2015 season had approximately 270 000 sheep, 75 000, goats and 35 000 cattle. This excludes commercial farming stock counts.

Most of the ELM livestock is farmed on communally owned land under tribal authority on a subsistence rather than commercial basis. The exception is the northern areas around Indwe and Dordrecht where privately owned commercial farming takes place *(Refer Plan 10.1: Map 1, Current Agricultural Activities and Infrastructure).*

Sustainable grazing carrying capacities of the natural pasture in the south and west are low at 9 to 20 hectare per LSU (mainly the Sub Arid Thorn Bushveld). In the central region this increases to 6 to 12 hectare per LSU, while in the North-West (Dordrecht area) and to the north east of Indwe, capacity increases further to 4 to 6 hectare per LSU.
(LSU: Grazing capacity is based on a large stock unit (LSU) or animal unit, defined as an ox which weighs 450 kg and which grows at 50 g per day on a grazing field that is 55% digestible.)

The previous Spatial Development Framework Plan for the Emalahleni Local Municipality (2013-2017) makes reference to the LM being supported in the sustainable expansion of the production, processing and marketing of wool (contract between Ruliv and NWGA regarding the sheep shearing tents, 2001). Ruliv chose to support wool growing in this area because of the already existing volume of sheep holding. The rural villages that benefited from the tents were; Cumakala, Ntsinga and Izingqolweni.

Plan 10.1: Agricultural Activities, Infrastructure and Grazing Capacity



10.1.2 Field Crop Production

Most of the Chris Hani DM area is very feasible for production of field crop products, but in most parts, crops are generally produced on a very small scale, due to the fact that they are only produced according to household needs. Plan 10.2: Map 2 indicates that Maize Yield potential is highest in the eastern part of the Emalahleni Municipality.

Agro Processing:
The CHDM is in partnership with DRDAR and Emalahleni LM for the sorghum production programme in Emalahleni LM in order to provide adequate raw materials for the Mill. (CHDM SEZ Report, 2016)
The Municipality has facilitated the establishment of a milling plant owned by Lbuyambo Secondary Cooperative which is made up of six primary cooperatives. Its objective is to add value to grain produce for markets. (IDP 2017-22)

10.1.3 Forestry

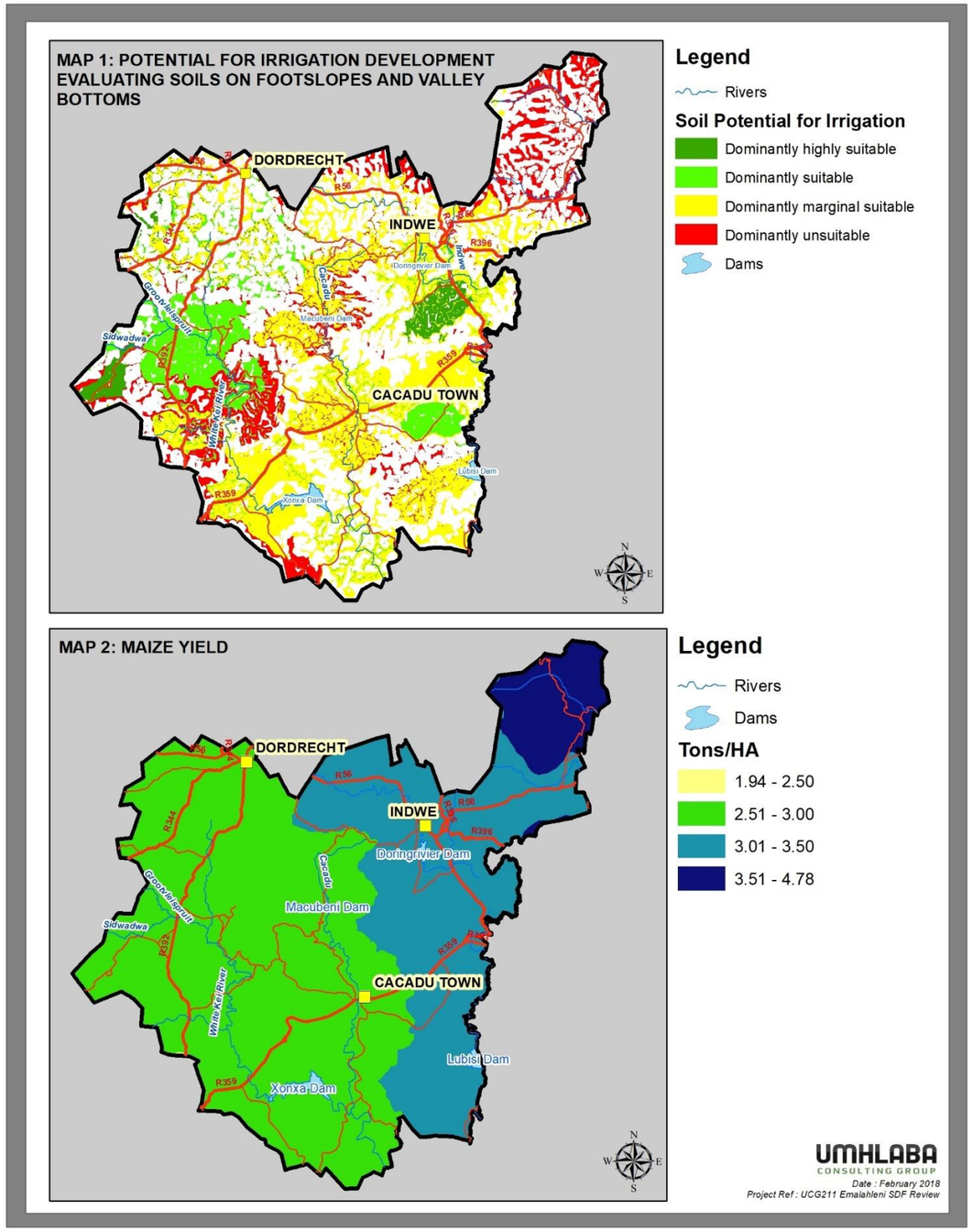
Communal plantations occur in the area of Maqhashu, Hala No 1, Mount Arthur and Machubeni. Natural forests are situated in Hala No 1 Long Forest and Cumakala Village Khope Forest. Presently trees are harvested by locals for fire wood.

10.1.4 Irrigation

Existing irrigation schemes provide potential for the expansion of horticultural activities in the region. However, poor management of the irrigation projects limits their potential to succeed.

The Xonxa Irrigation Scheme like most other irrigation schemes in the District is underutilized but is the subject of a revitalisation programme of the Department of Agriculture.

Plan 10.2: Potential for Irrigation, Soils and Maize Yield



10.1.5 Limitations

- **Low skills levels,**
- **Limited access to funding and credit by emerging farmers**
- **Inadequate access to land and insecure land tenure**
- **Poor veld and livestock management**
- **Dilapidated and insufficient infrastructure** (roads, fencing, stock dams and dipping tanks) remain the biggest challenges in livestock farming
- **Water**: Water is probably the most limiting factor for agriculture in the region, especially for vegetable and crop production, but also successful livestock farming is dependent on a reliable, constant and sustainable water access. Rainfall distribution in Emalahleni Local Municipality is poor and dry spells are a frequent occurrence. The western section of the Municipality experiences an average of 500mm per annum. This increases to the East (Refer Plan 5.1: Map 2, Section 5.3)
- Evaporation in the Emalahleni Local Municipality is much higher than the average annual rainfall. The evaporation on the northern high plateau is 2000 mm per annum, whereas it is approximately 1700 mm per annum in the Lady Frere district. This phenomenon complicates crop production as it requires moisture conservation for dryland cropping and sophisticated irrigation management.
- **Market Access**: Before any production is started, a sustainable long-term market access has to be secured
- **Transport and Infrastructure**: Linked to the problem of market access is the problem of lack of transport. Transport is a major problem in the area. This includes of course market access, but also the access to get inputs into the project, like seeds and fertilizer.

10.2 MINING POTENTIAL

- **Coal Mining**

For the past decade the municipality has been struggling to extract value out of the coal deposits discovered in its jurisdictional area. Coal mining remains an untapped potential in the area and has potential to contribute to employment creation if it can be properly mined and beneficiated. These coal deposits surround the Towns of Cacadu and Indwe as indicated on Plan 10.3: Map 1).

- **Sand Mining**

Small scale excavation mining occurs near local rivers whereby people or operators adhocly mine sand without permits for purposes of building and brick-making. Sand mining activity is largely unregulated and poses an environmental threat. Intervention from DEDEAT and DME is required to manage and regulate this activity.

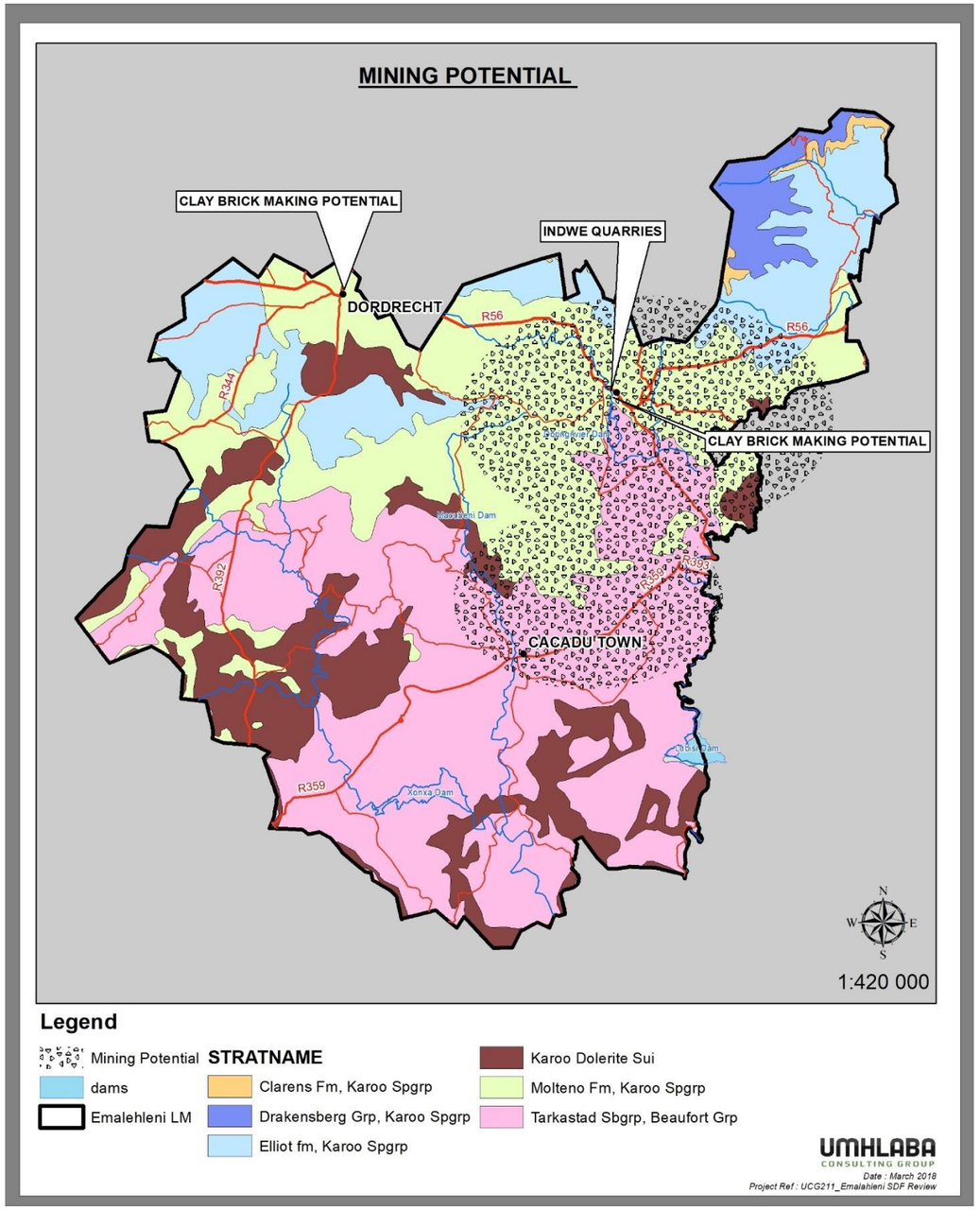
- **Quarrying**

Indwe Quarries (IQ) known as Blue Grain Quarries aims to be a leading commercial supplier of building and construction aggregates in the region. Quarrying operations are en-route the R63 between Indwe and Dordrecht. Anticipated indirect benefits from this operation would be the increasing demand for Bed and Breakfast accommodation facilities in the area, as mining activity increases. (ELM IDP 2017-22).

- **Clay Brick Making**

The Municipality is in the process of exploring the potential for small scale clay brick making in Indwe and Dordrecht to supply material for housing projects, intentioned to support the growth of sand mining initiatives. The local municipality is in the process of getting accreditation for clay brick mining and also provides business support in the form of production inputs and infrastructure to clay brick producers. (ELM IDP 2017-22).

Plan 10.3: Mining Potential



10.3 TOURISM

Emalahleni's tourism vision is: - *"To be a preferred destination for farm stays, nature-based and heritage tourism experiences in the Eastern Cape Province for the benefit of all"*

10.3.1 Tourism Attractions and Facilities

Tourism facilities and attractions in the area are limited and there is no anchoring attraction for the area. Potential exists for eco and heritage-tourism and the possibility of promoting farm stays. In 2009, seven accommodation facilities were recorded in the LM, as shown in Table 10.1, below. The potential tourism attractions are listed in Table 10.2 and illustrated on Plan 10.4: Tourism Potential.

Table 10.1: Accommodation Facilities in Emalahleni LM

Type	No.	Beds
Bed & Breakfast	2	23
Guest house/farm	4	57
Lodge	1	23
Camp Site	0	-
Self-catering	0	-
Hotel	0	-
Total	7	103

Source: Chris Hani DM Tourism Plan, 2009

Table 10.2 Potential Tourism Attractions in Emalahleni LM

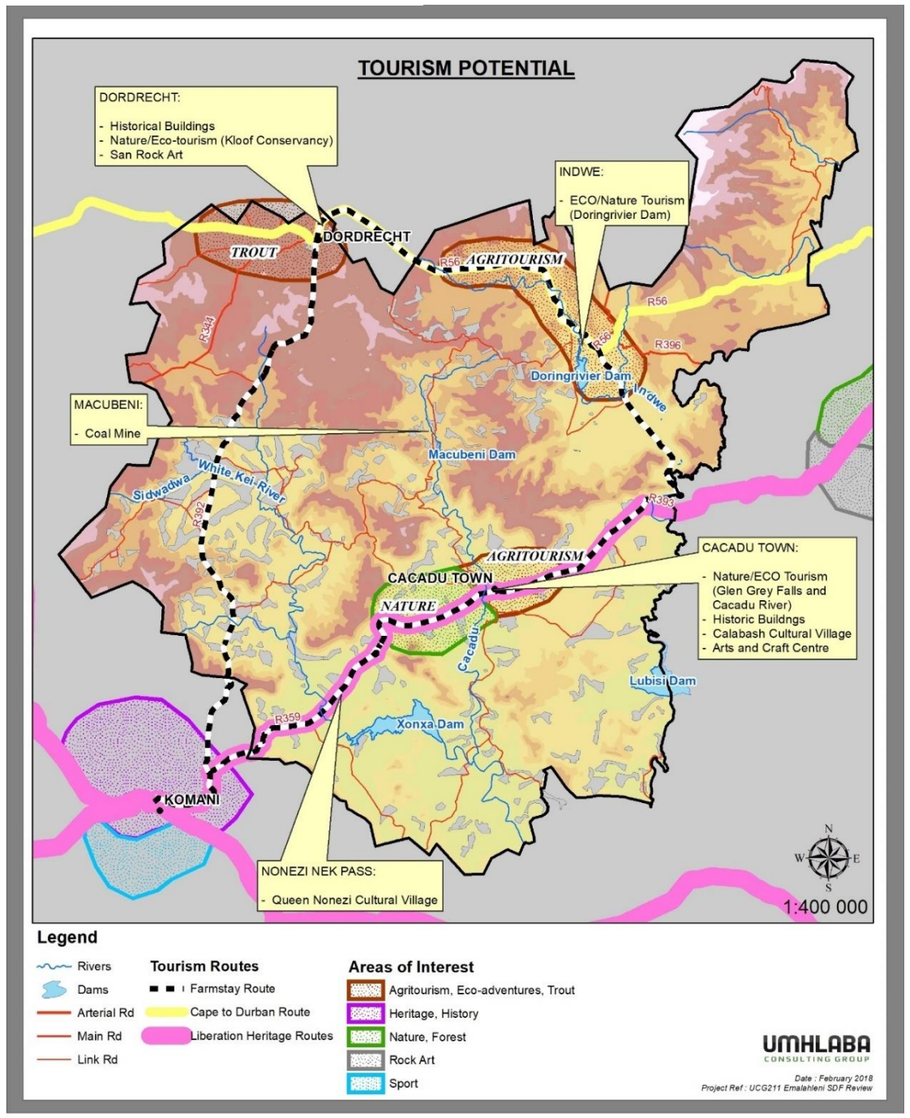
Nature- Based Tourism Products	
Glen Grey Fall near Cacadu Town	Doornriver Dam at Indwe
The Kloof Conservancy (Hossap dam) near Dordrecht	Fly-fishing resources around Dordrecht
Cacadu River at Cacadu Town	Xonxa Dam
Heritage Tourism	
Macubeni Coal Mine	Andreson Museum at Dordrecht
Churches in Cacadu Town	Victoria Buildings at Dordrecht
Methodist Church at Dordrecht	Burgher Statue at Dordrecht
San Rock Art (Dordrecht)	Abathembu Calabash Cultural Village (Cacadu Town area)
Queen Nonezi Cultural Village at Nonezi Neck (under construction) (R396)	Arts and Craft Centre – traditional beadwork and attire (Cacadu Town)

Source: Chris Hani DM Tourism Plan, 2009 and IDP 2017-22.

10.3.2 Tourism and Heritage Routes

The area has been identified as having potential for a farm-stay tourism route. The Ndondo Liberation Heritage Route follows the R356 through Cacadu Town, and has the following sites of historical significance to the liberation movement, namely: the Graves of Qondo Hoho and Luvuyo Lerumo, the Maqhashu Village, Queen Nonesi and the Wycliffe Tsotsi Law Offices.

Plan 10.4: Tourism Potential



10.3.3 Chris Hani District Municipality: Industrial Development / Special Economic Development Zone (SEZ) initiative

A Special Economic Zone (SEZ) is defined ***as a geographically limited area administered by a single body offering certain incentives and benefits to businesses physically located entities within the zone***. Over the last decade, the number of SEZs worldwide has grown dramatically as they are increasingly being used as an economic policy tool. The SEZ programme is established by the Department of Trade and Industry

Komani (Formerly named Queenstown), due to its central location and strong connectivity to the Local Municipalities' in the CHDM was proposed as a potential Special Economic Zone. However subsequent to this selection Komani SEZ was not approved and has subsequently been developed as an industrial zone. However this discussion summarizes the SEZ initiative and provides an overview of the roles and potentials the municipalities have in the Chris Hani District.

The Model

The 8 local Municipalities 'that comprise the CHDM area will form **Sector Nodes/ Spokes (**primary nodes of production) that will yield primary production so that the Agro-processing **Hub** (the formerly proposed Komani SEZ) has adequate quantity and quality of input raw materials. This approach is inclusive and it ensures that economic activities and job creation occur not only in the proposed SEZ, but also in the Local Municipalities of the District and possibly.

The operational principles are:

- Products will be consolidated and moved towards the Hub ;
- The model emphasises regional integration with a core capacity (Hub) while building capacity through spokes;
- Spokes will retain higher employment and production footprint; and
- The Hub will require higher skills level for agro-processing, investment promotion and SEZ bulk

Economic benefits associated with the establishment of an SEZ include:

- Increased foreign and domestic private sector investment;
- Export growth and diversification;
- Development of industries;
- Skills upgrade and technological transfer

Between 1995 and 2011, CHDM's share of the primary sector output decreased by almost 50% from 15.3% to 7.8%. (Source: CHDM SEZ Feasibility Study Report, 2013)

The CHDM SEZ Report, 2013 identifies the following agricultural potentials in Emalahleni LM:

- Agriculture and agro-processing: due to the availability of raw materials and fertile land.
- Agro-processing: produce such as sorghum, maize, vegetables, milk and cheese.
- Livestock farming (goats and cattle);
- High value crop production (hydroponics and bio-fuels); and
- Irrigation schemes
- Coal Mining.

Emalahleni Local Municipality as a Sector Node

The CHDM SEZ Feasibility Study, 2013, identifies the following key considerations for Emalahleni LM, as follows:

- *One third (34%) of the land area is considered suitable for moderate to limited crop production, while the rest of the area is best suited for livestock farming.*
- *Lack of access to suitable roads is the main challenge in this area as only 10% of the LMs land mass is serviced with adequate roads.*
- *Key areas of Agricultural opportunities in the region include wool, beef, sorghum, lucerne, peach, apricot and other irrigated crops.*
- *The LM has earmarked the potential for coal mining in the surrounding area of Indwe, and Cacadu Town*
- *There is an infrastructure upgrade required for the Tshatshu irrigation scheme to be successful.*

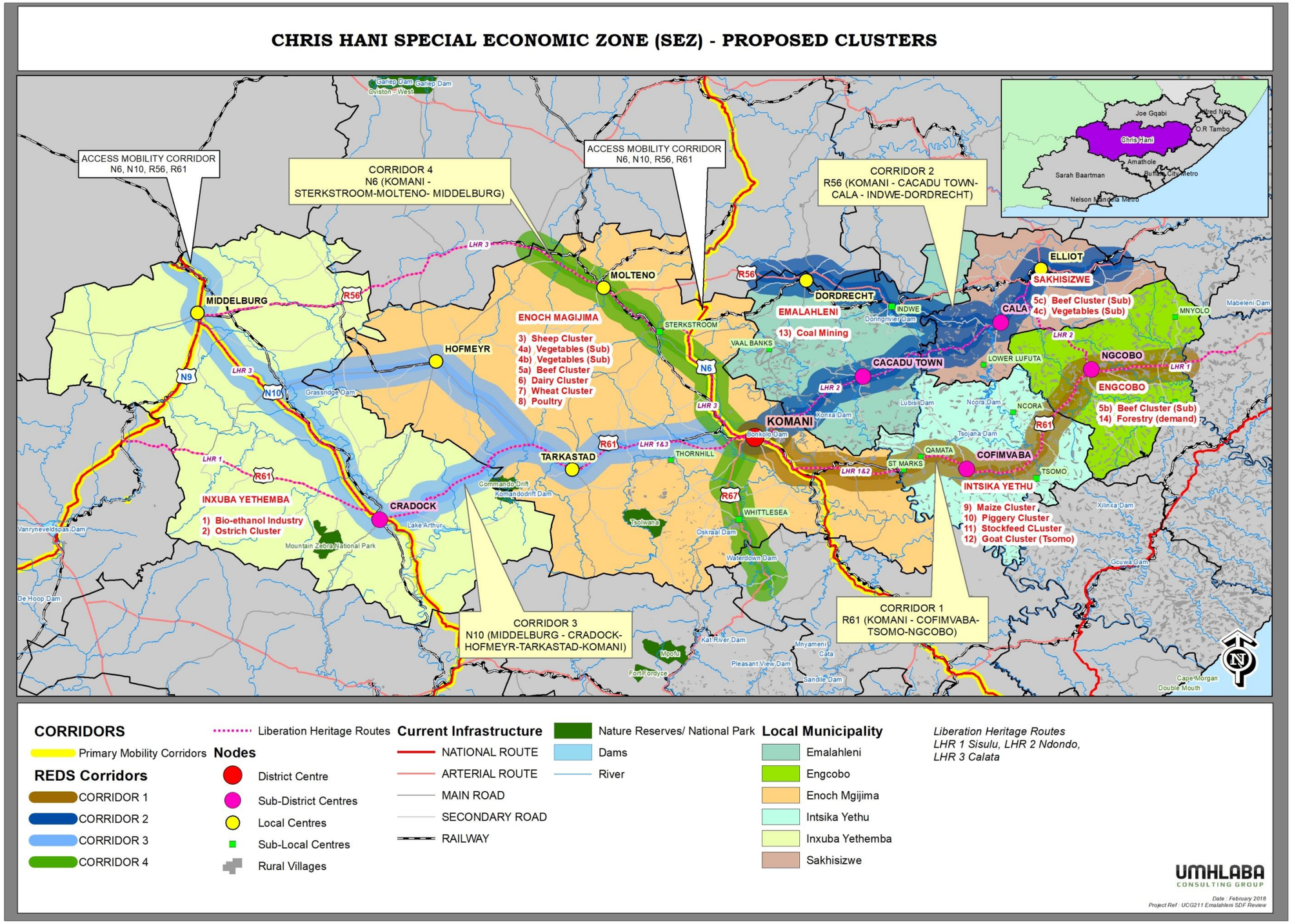
Emalahleni LM was identified as a Primary Sector Node for coal production to the formerly proposed SEZ Hub (Komani) within the Chris Hani District.

Table 10.3 CHDM Local Municipal Sector Nodes (Proposed): Special Economic Zone (SEZ)

MUNICIPALITY	CLUS-TER	PROPOSED CLUSTER	INPUT COMMODITY	SUPPLE SPOKE	SEZ
INXUBA YETHEMBA	1	Bio-ethanol industry	Sugar beet, Sorghum	Emalahleni	N/A
	2	Ostrich cluster	Ostrich	Tsolwana	Value addition of feathers and skin
TSOLWANA	3	Sheep Cluster	Sheep	All other LMs	Storage, process, package, distribute
	4a	Vegetables (Sub)	Cabbages	Lukhanji, Sakhisizwe, Engcobo	Storage, process, package, distribute
INKWANCA					
LUKHANJI	5a	Beef Cluster (sub)	Cattle	Inkwanca	Storage, process, package, distribute
	6	Dairy Cluster	Cattle	Intsika Yethu, Emalahleni	Storage, process, package, distribute
	7	Wheat Cluster	Wheat	Emalahleni	Storage, process, package, distribute
	8	Poultry	Chickens	All other LMs	Storage, process, package, distribute
	4b	Vegetables (sub)	Cabbages	Tsolwana, Sakhisizwe, Engcobo	Storage, process, package, distribute
INTSIKA YETHU	9	Maize Cluster	Maize	Tsolwana, Sakhisizwe, Lukhanji	Storage, process, package, distribute
			Dry Beans	Intsika Yethu, Lukhanji, Sakhisizwe	
	10	Piggery Cluster	Pigs	Lukhanji	Storage, process, package, distribute
	11	Stockfeed Cluster	Soya, Sunflower, Lucerine & Maize (70%)	Inxuba Yethemba, Lukhanji, Sakhisizwe, Engcobo, Emalahleni	Storage, process, package, distribute
	12	Goat Cluster (Tsomo)	Goats	All other LMs	Storage, process, package, distribute
EMALAHLENI	13	**Coal mining**	**Coal**	**Inkwance**	**Storage, process for energy**
ENGCOBO	5b	Beef Cluster (sub)	Cattle	Intsika Yethu	Storage, process, package, distribute
	14	Forestry (demand)	Timber	Intsika Yethu, Sakhisizwe	Timber Storage, process, package, distribute
SAKHISIZWE	5c	Beef Cluster (sub)	Cattle		Storage, process, package, distribute
	4c	Vegetables (sub)	Vegetables		Storage, process, package, distribute

Refer to Plan 10.5: Chris Hani Special Economic Zone (SEZ)/..Overleaf.

Plan 10.5: Chris Hani Special Economic Zone: Proposed Clusters



11. SPATIAL ELEMENTS

11.1 LAND USE

Emalahleni LM is characterized by three distinct settlement forms. These are:

- The three urban centres, namely; Cacadu Town, Dordrecht and Indwe. Indwe and Dordrecht are located on the R56. These towns act as service centres to the resident population and surrounding rural commercial farming communities. Cacadu Town is located on the R396 in the Former Transkei region. Its main role is as a service centre to the surrounding rural settlements.
- Communal settlements are located in the Tribal Authority area of the Former Transkei to the south of the Municipality. The densities vary across these settlements, with between 5 000 – 9 000 people per square kilometre in Tyoksville, Manyano, Mavuya and Sinakho, to less than 20 people per square kilometre in Matyantya, Glen Adelaide, Maqashu, Zwartwater and Buffelsdoorns. Subsistence agriculture is evident in this region.
- Low density commercial farming is predominant in the northern part of the study area.

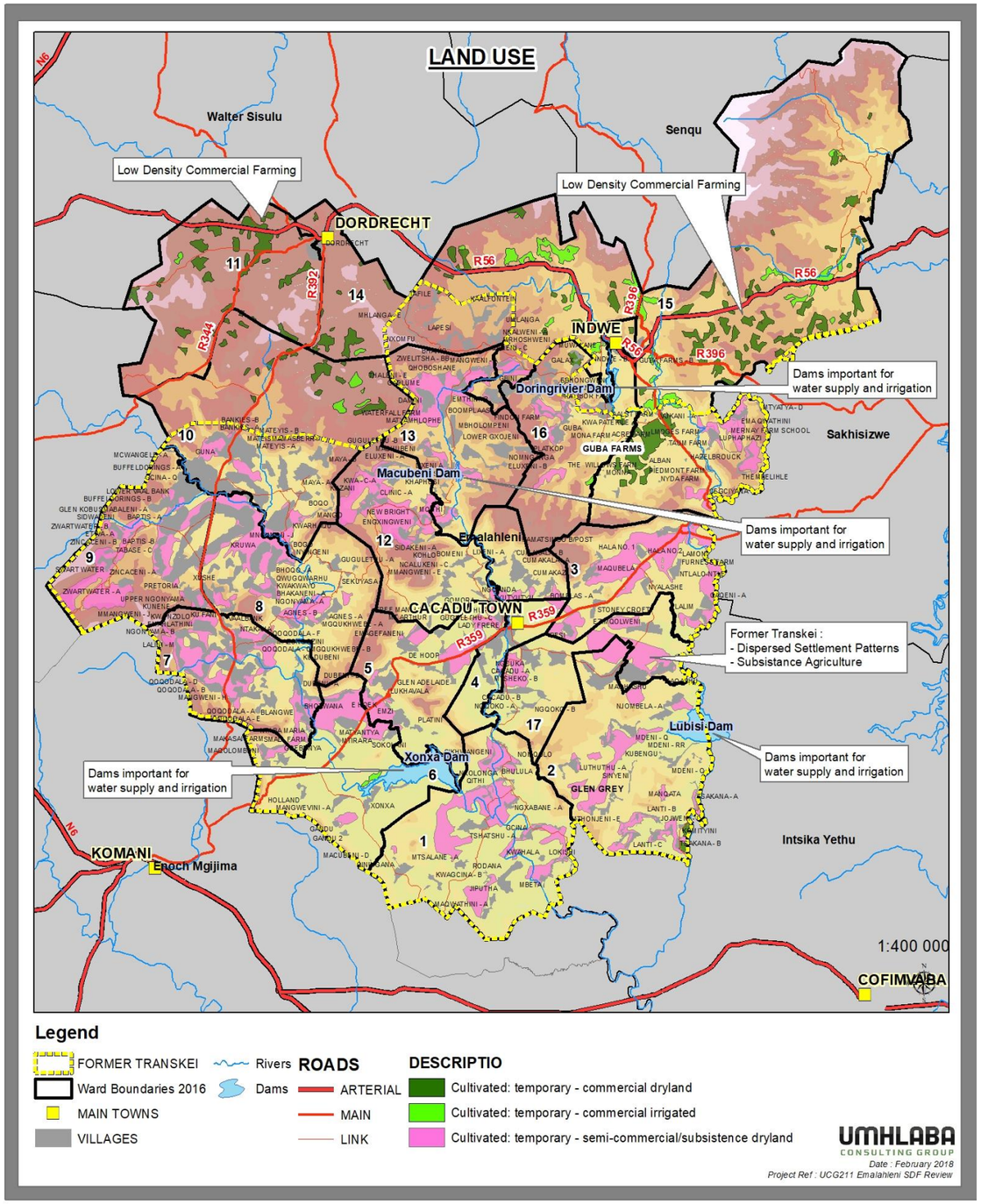
Other significant land use features are:

- The Dams; Doringriver, Xonxa, and Macubeni
- The Xonxa Irrigation Scheme
- The Guba Farm Area

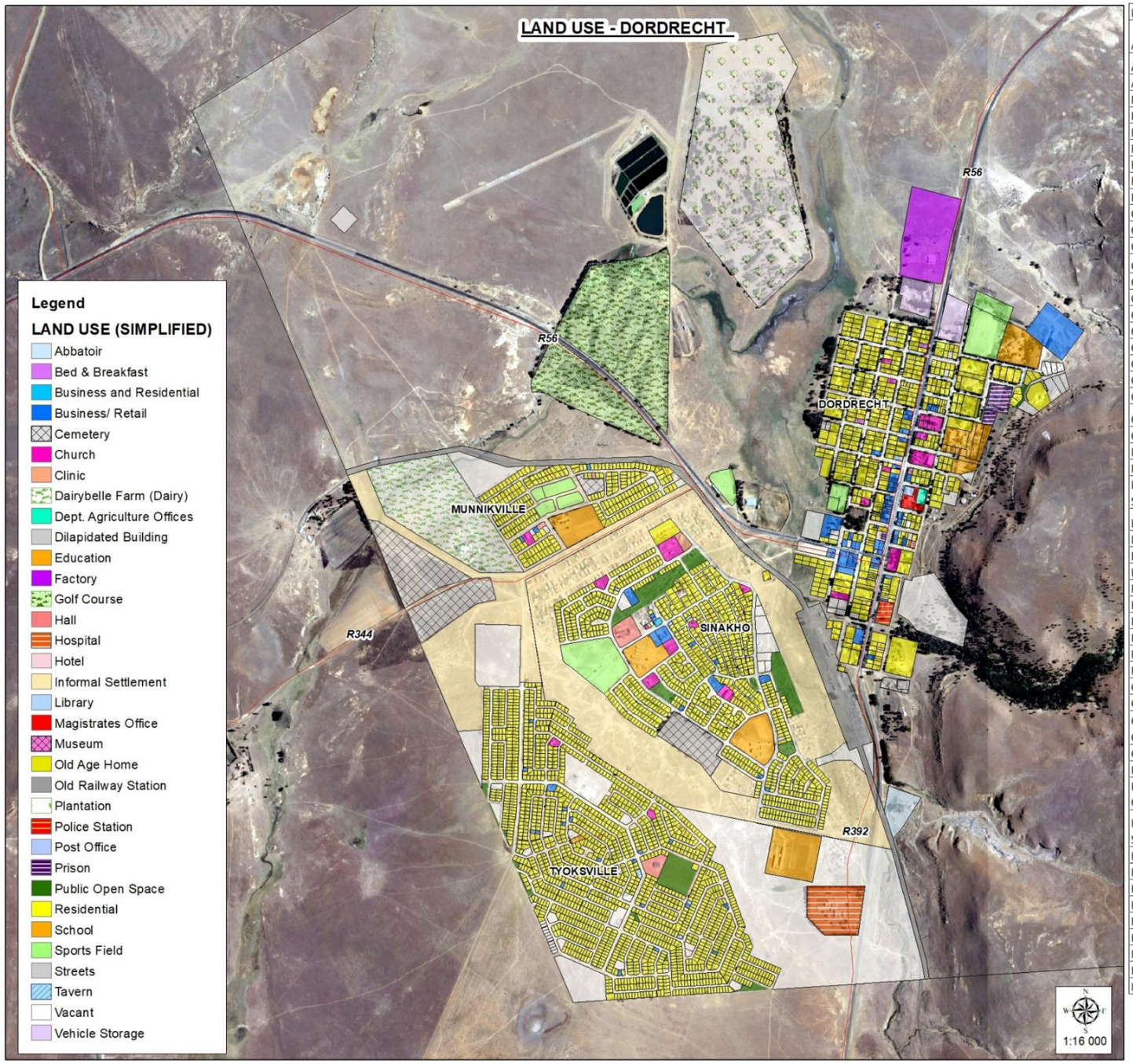
Implications

- *The area is under-developed*
- *Fragmented settlement pattern*
- *Low density rural settlement environment*
- *Resource base under pressure in rural settlement areas:*
- *Competition for rural resources (land) between prospective uses*
  - *Residential*
  - *Free-range grazing*
  - *Cultivation*

Plan 11.1: Land Use



Plan 11.2: Land Use: Dordrecht



LAND USE	Count	LAND USE	Count
Abbatoir	1	Internet Cafe, Cosmetic Shop, Funeral Services	1
Agricultural Spares Shop	1	Kiosk	1
Appliance Shop	1	Lewis	1
Bed & Breakfast	2	Library	1
Boarding House	2	Liquor Shop	1
Bottle Store	1	Magistrates Office	1
Bottle Store & Supermarket	1	Mechanic Workshop	5
Business	1	Motor Painting	1
Business Roadway	6	Museum	1
Butchery	2	Offices	1
Cafe	1	Offices (Attorney)	1
Cafe, Clothing Shop	1	Offices (Emalahleni Dev. Centre)	1
Carpentry Business	1	Offices (Samila Womens Co-op)	1
Carpentry Business; House	1	Offices and Warehouse	2
Cash Loan	1	Old Age Home	2
Cathedral Church	6	Old Railway Station	2
Cemetery	2	Pep	1
Church	18	Plantation	1
Church & Mission	1	Police Station	1
Clinic	3	Post Office	1
Clothing Shop	4	Pre-School	1
Community Hall	2	Prison	3
Community Hall & Church	1	Pub & Grill	1
Creche	1	Public Open Space	17
Dairybelle Farm (Dairy)	1	Remainder Allotment	1
Dept. Agriculture Offices	1	Res House	3421
Dilapidated Police Station/Building	1	Row of Rooms	2
Dordrecht Cheese Factory	1	School	14
Dordrecht Hospital	1	School Hostel	1
Electrical Ware	1	Shop	21
Electronics Shop	1	Shop & House	1
FNB	1	Shop; Tavern	2
Flats	1	Shops	1
Fruit & Veg shop	1	Soccer Field	5
Funeral Services	2	Soccer Field & Bus Depot	1
Furniture Shop	5	Spaza Shop	3
Furniture Shop & Hardware	1	Sportsfield	4
Garage (Caltex)	2	Standard Bank	1
General Dealer	1	Streets	1
Golf Course - Dordrecht Country Club	2	Supermarket	1
Graveyard	1	Supermarket, Clothing Shop	1
Hair Salon & House	1	TV Repairs	2
Hair Salon, Clothing Shop, Cash Loan	1	Tavern	8
Hair Salon, Funeral Services, Supermarket	1	Tavern & House	1
Hall	1	Tombstone Sales	1
Hardware	1	Upholstery Business	1
Heavy Vehicle Storage	1	Vacant	84
High School	1	Vacant (Camp)	1
Hotel	1	Vandalised shops	1
House	5	Vehicle Storage	1
Informal	2	Wholesale	1
Informal Settlement	1	Wool Buyers / Shoe	1
Informal Shelter	1		

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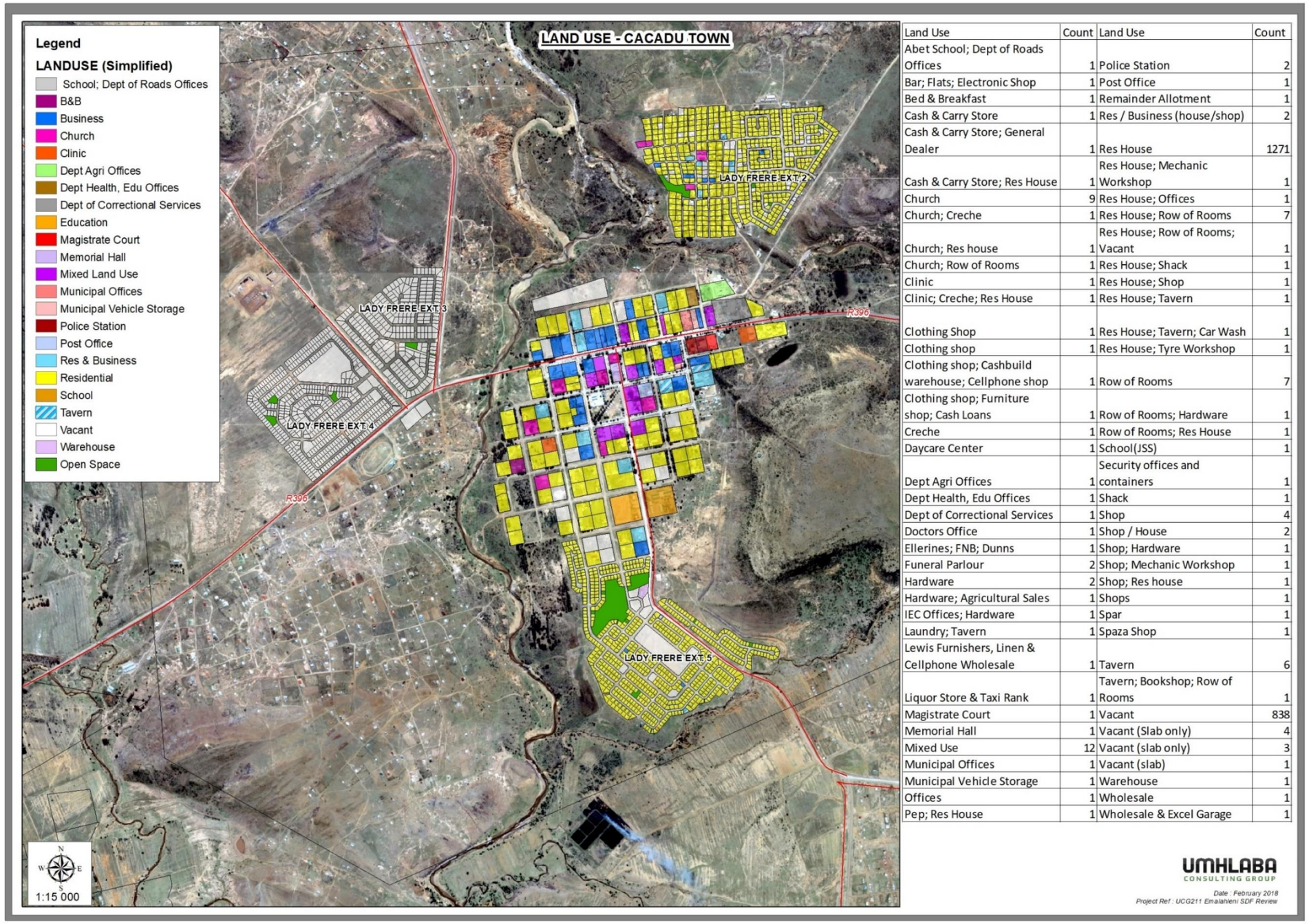
Plan 11.3: Dordrecht: Draft Land Use Plan

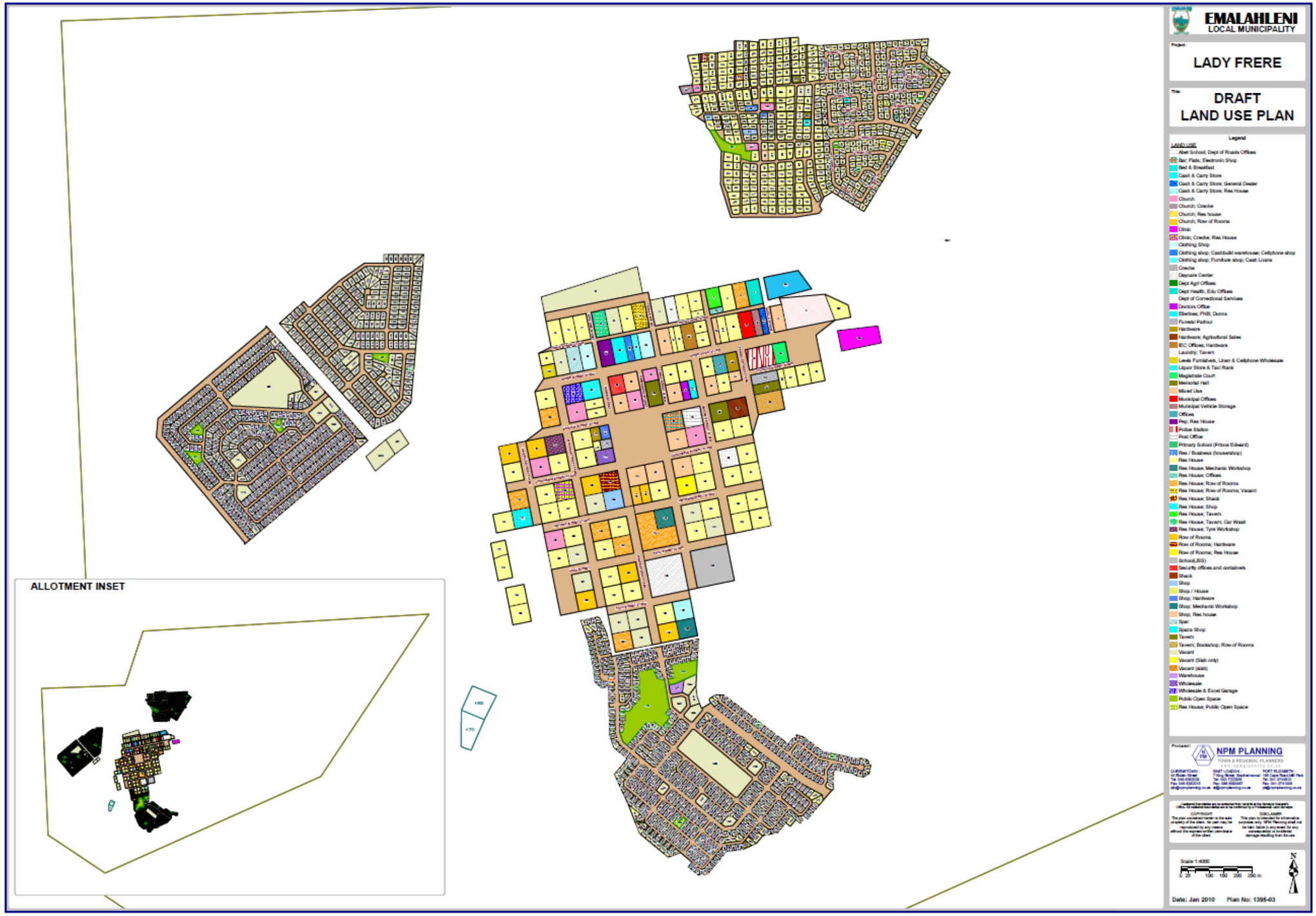
Plan 11.4: Land Use: Cacadu Town



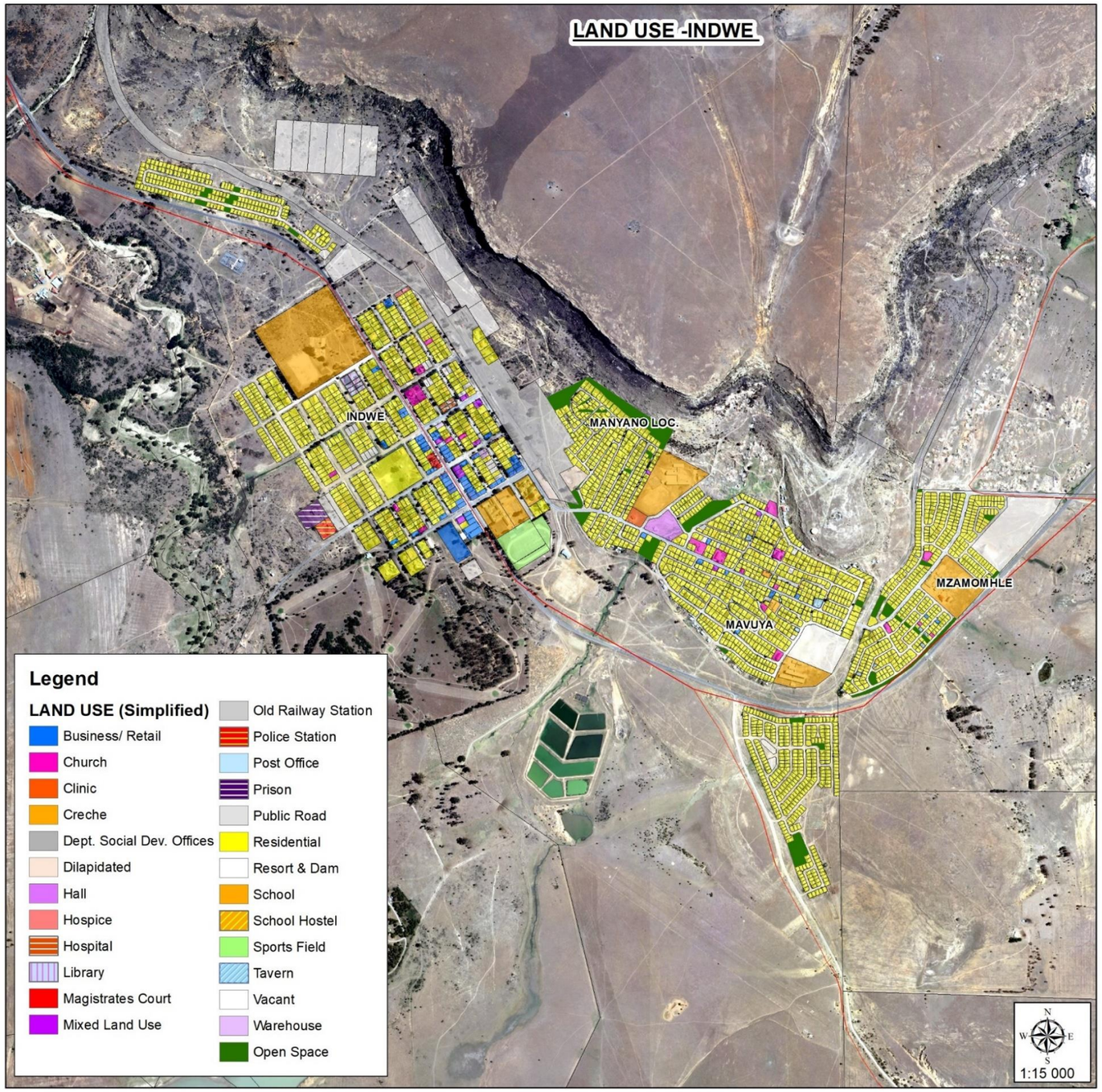
Land Use	Count	Land Use	Count
Abet School; Dept of Roads Offices	1	Police Station	2
Bar; Flats; Electronic Shop	1	Post Office	1
Bed & Breakfast	1	Remainder Allotment	1
Cash & Carry Store	1	Res / Business (house/shop)	2
Cash & Carry Store; General Dealer	1	Res House	1271
Cash & Carry Store; Res House	1	Res House; Mechanic Workshop	1
Church	9	Res House; Offices	1
Church; Creche	1	Res House; Row of Rooms	7
Church; Res house	1	Res House; Row of Rooms; Vacant	1
Church; Row of Rooms	1	Res House; Shack	1
Clinic	1	Res House; Shop	1
Clinic; Creche; Res House	1	Res House; Tavern	1
Clothing Shop	1	Res House; Tavern; Car Wash	1
Clothing shop	1	Res House; Tyre Workshop	1
Clothing shop; Cashbuild warehouse; Cellphone shop	1	Row of Rooms	7
Clothing shop; Furniture shop; Cash Loans	1	Row of Rooms; Hardware	1
Creche	1	Row of Rooms; Res House	1
Daycare Center	1	School(JSS)	1
Dept Agri Offices	1	Security offices and containers	1
Dept Health, Edu Offices	1	Shack	1
Dept of Correctional Services	1	Shop	4
Doctors Office	1	Shop / House	2
Ellerines; FNB; Dunns	1	Shop; Hardware	1
Funeral Parlour	2	Shop; Mechanic Workshop	1
Hardware	2	Shop; Res house	1
Hardware; Agricultural Sales	1	Shops	1
IEC Offices; Hardware	1	Spar	1
Laundry; Tavern	1	Spaza Shop	1
Lewis Furnishers, Linen & Cellphone Wholesale	1	Tavern	6
Liquor Store & Taxi Rank	1	Tavern; Bookshop; Row of Rooms	1
Magistrate Court	1	Vacant	838
Memorial Hall	1	Vacant (Slab only)	4
Mixed Use	12	Vacant (slab only)	3
Municipal Offices	1	Vacant (slab)	1
Municipal Vehicle Storage	1	Warehouse	1
Offices	1	Wholesale	1
Pep; Res House	1	Wholesale & Excel Garage	1

Plan 11.5: Cacadu Town (Former Lady Frere): Land Use Plan

Note: Reference to Lady Frere should read Cacadu Town



Plan 11.6: Land Use: Indwe



Land Use	Count	Land Use	Count
Bingo Cash loans, Car wash	1	Mechanic workshop	2
Bookshop, Hair Salon, Car wash	1	Mechanic, Scrap yard	1
Bottle store	2	Mini Market	1
Butchery	2	Offices	4
Cafe	2	Old Railway Station	2
Cash and Carry Market	2	Old School	1
Cathedral Church	2	Pep stores	1
Chemist, Tombstone sales	1	Phycologist Rooms	1
Church	20	Police Station	1
Church, Library	8	Post Office	1
Clinic	1	Prison	1
Clothing shop	2	Pub, Flats, Hair Salon	3
Creche	1	Public Road	2
Dept. Social Dev. Offices	1	Res House	2552
Dilapidated / Manufacturing Building	1	Residential	1
Dilapidated water treatment plant	1	Resort & Dam	1
FNB Bank	1	Row of rooms	6
Flats	2	Row of rooms, Sewing business	1
Funeral Parlour/ Services	3	Satelite offices	1
Funeral Parlour/ Services, Flats	1	School	6
Funeral Parlour/ Services, Row of rooms	1	School Hostel	1
Furniture shop	2	School Sportsfields	3
Garage, Butchery, Liquor Store	2	Shop	6
General dealer	2	Shop, Furniture shop	1
Hardware	1	Shop, House	1
Hardware, Clothing shop, Appliance shop	2	Shop, House, Fridge Repairs	1
Hospice	2	Shop, Tavern	1
Hospital	4	Storage warehouse	2
House	1	Supermarket	7
House + Row of rooms	1	Supermarket, Bottle store	1
House, Hair Salon	2	Tavern	4
House, Mechanic	1	Tavern, Bottle store	1
Lewis Furnitures	2	Tavern, House	3
Liquor Store	1	Telkom Offices	1
Lucky 7 Store	1	Township Hall & Creche	1
Magistrates Court	5	Upholstery covering & Couching	1
Vacant	50	Warehouse	1
Welding shop, House	1	Welding shop, Hair Salon, Restuarant	1

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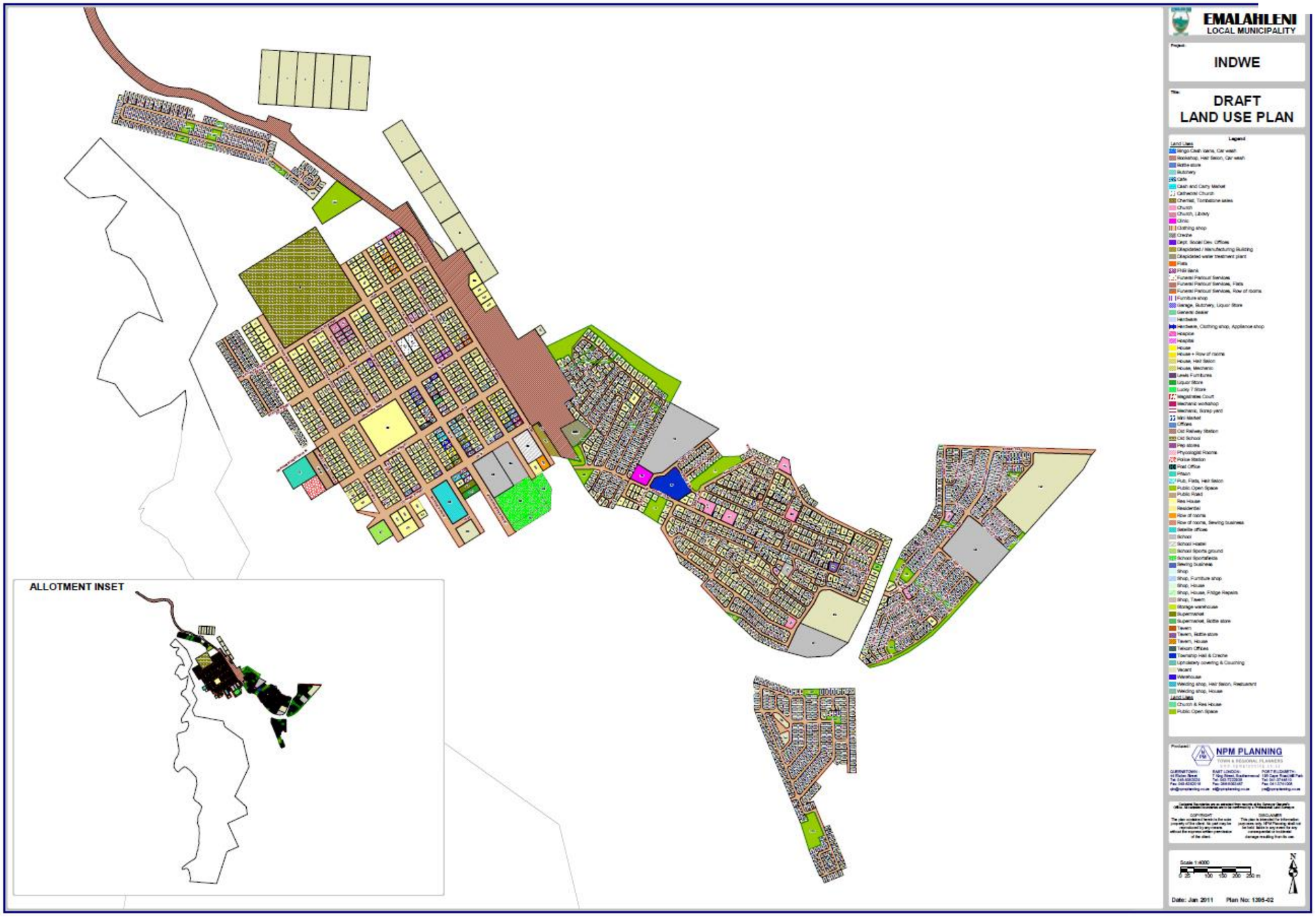
Plan 11.7: Indwe: Draft Land Use Plan



11.2 LAND OWNERSHIP

The majority of the Emalahleni Municipal Area is under Tribal Authority. This is the area that was located in the former Transkei.

There are approximately 668 privately owned farms in the Dordrecht and Indwe Districts, totalling 115,215.60 HA.

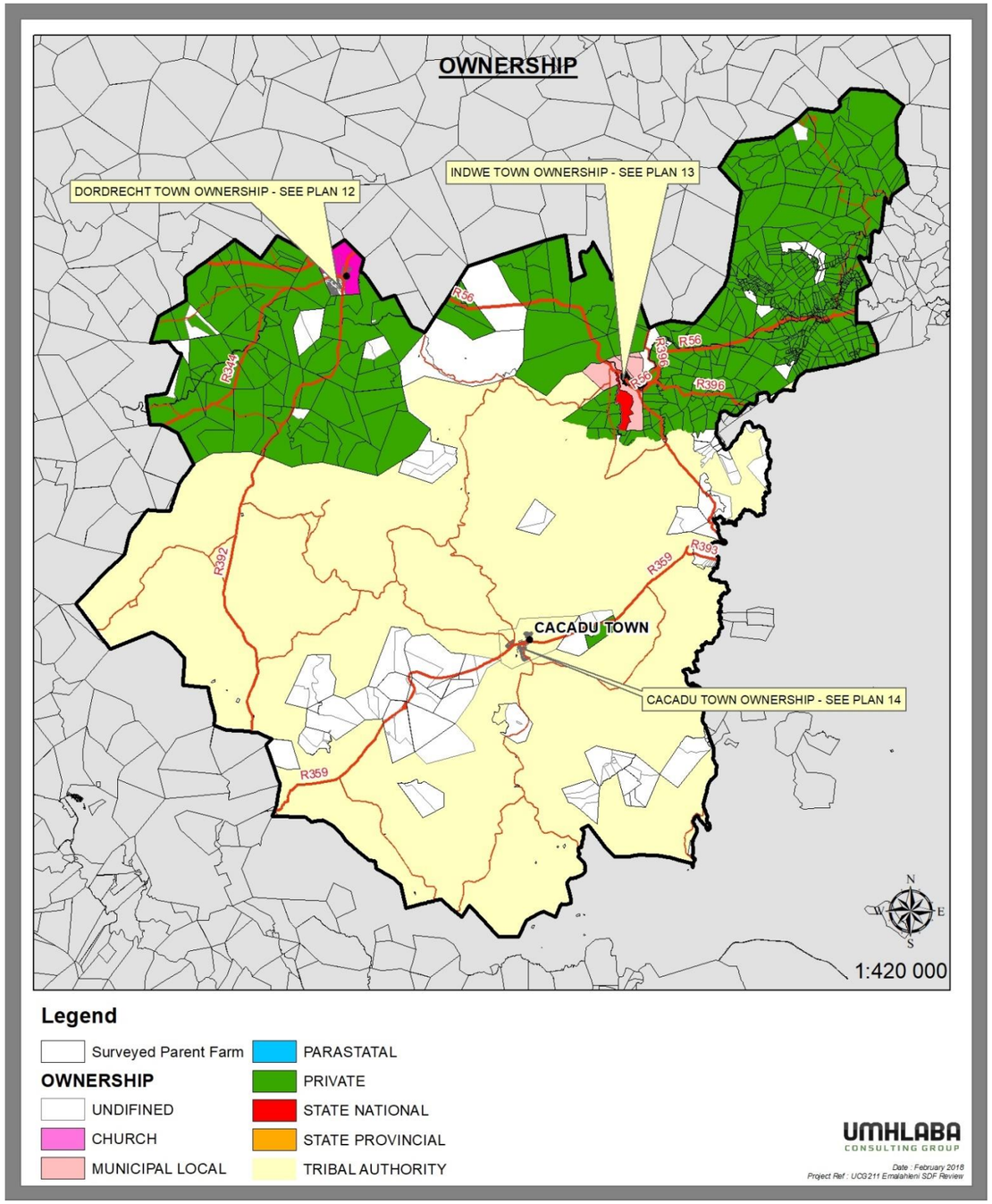
The majority of erven in the three urban areas are privately owned, 65% in Dordrecht, 79% in Indwe and 66% in Cacadu Town

(Data Source: Evaluation Roll 2013)

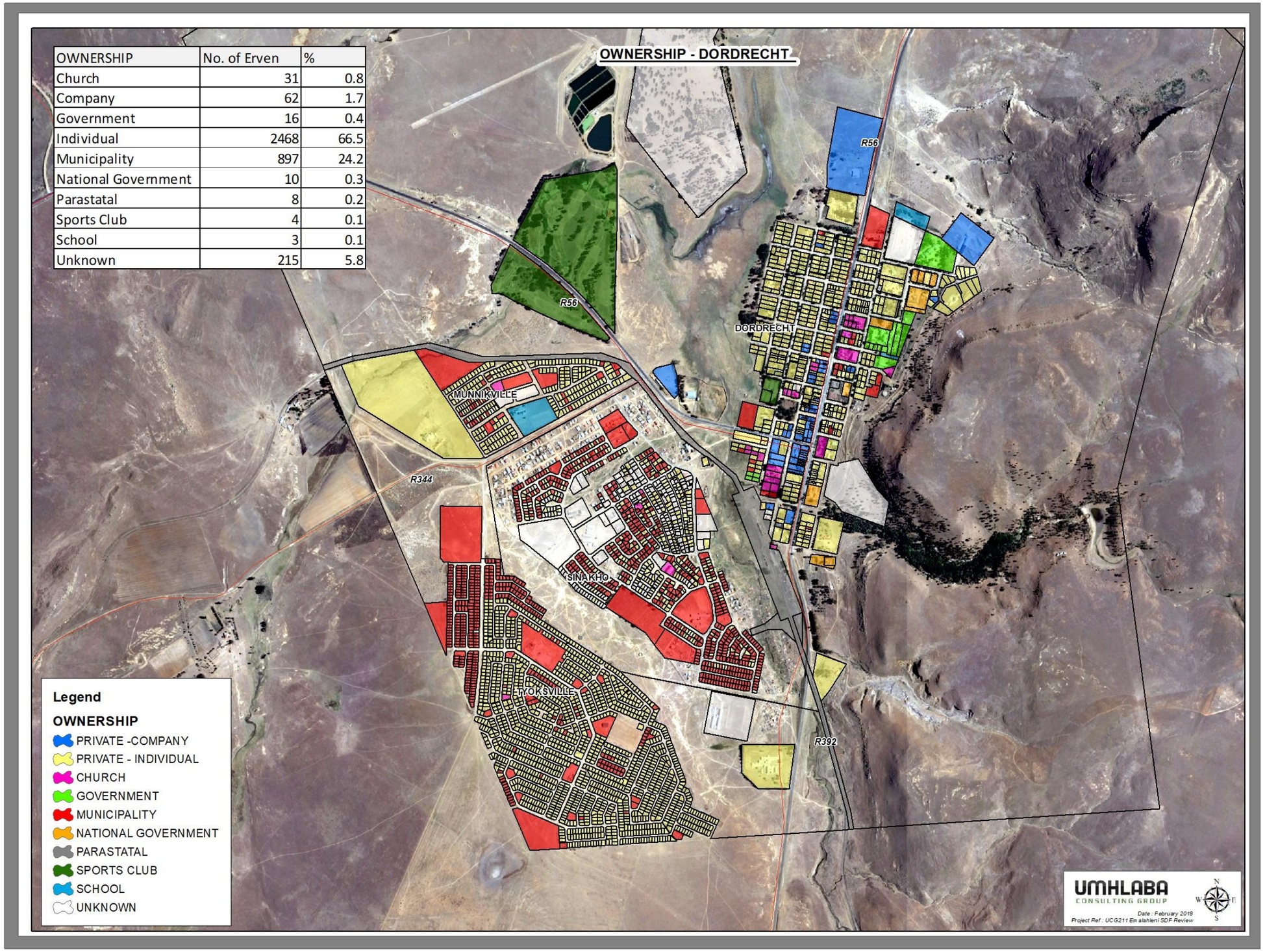
Implications

Land which is held by tribal authorities or is communally owned can only be developed once the relevant processes in terms of various pieces of legislation have been complied with. This can have the effect of hampering or slowing down development.

Plan 11.8: Ownership

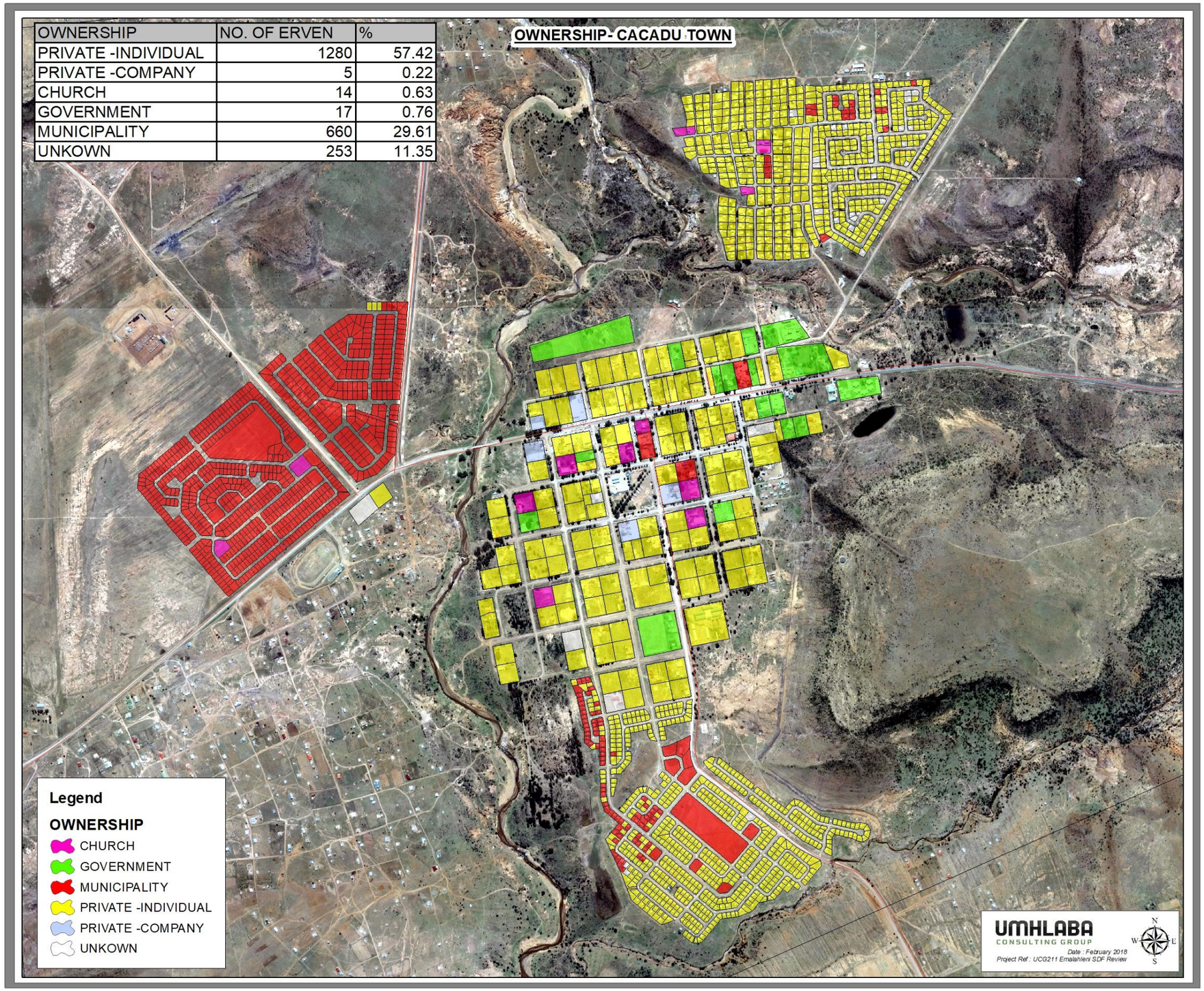


Plan 11.9: Ownership: Dordrecht



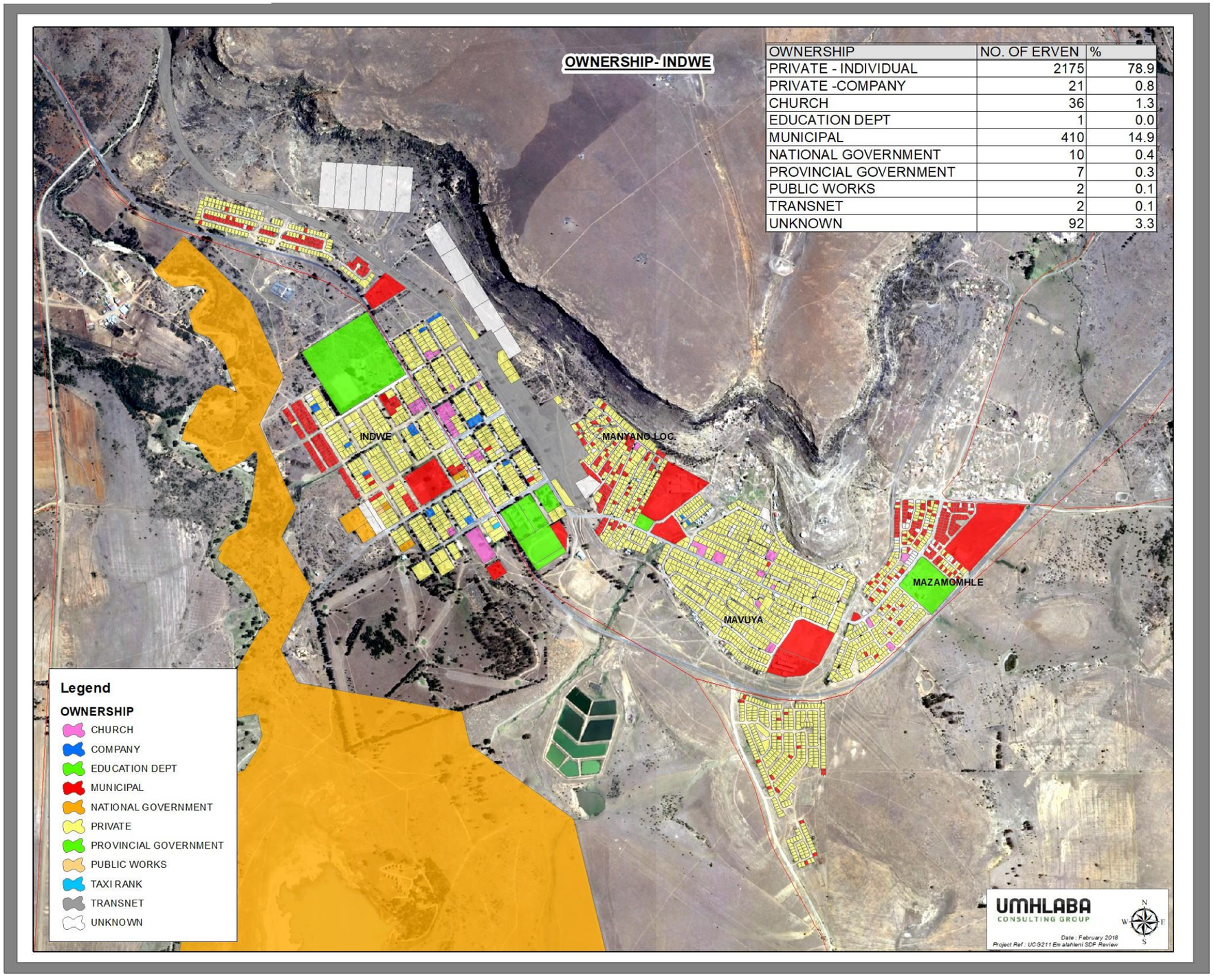
OWNERSHIP	No. of Erven	%
Church	31	0.8
Company	62	1.7
Government	16	0.4
Individual	2468	66.5
Municipality	897	24.2
National Government	10	0.3
Parastatal	8	0.2
Sports Club	4	0.1
School	3	0.1
Unknown	215	5.8

Plan 11.10: Ownership: Cacadu Town



OWNERSHIP	NO. OF ERVEN	%
PRIVATE -INDIVIDUAL	1280	57.42
PRIVATE -COMPANY	5	0.22
CHURCH	14	0.63
GOVERNMENT	17	0.76
MUNICIPALITY	660	29.61
UNKOWN	253	11.35

Plan 11.11: Ownership: Indwe



OWNERSHIP	NO. OF ERVEN	%
PRIVATE - INDIVIDUAL	2175	78.9
PRIVATE -COMPANY	21	0.8
CHURCH	36	1.3
EDUCATION DEPT	1	0.0
MUNICIPAL	410	14.9
NATIONAL GOVERNMENT	10	0.4
PROVINCIAL GOVERNMENT	7	0.3
PUBLIC WORKS	2	0.1
TRANSNET	2	0.1
UNKNOWN	92	3.3

11.3 LAND CLAIMS

The following data was sourced from the Department of Land Affairs and presented in the former Emalahleni Spatial Development Framework Plan 2013-2017.

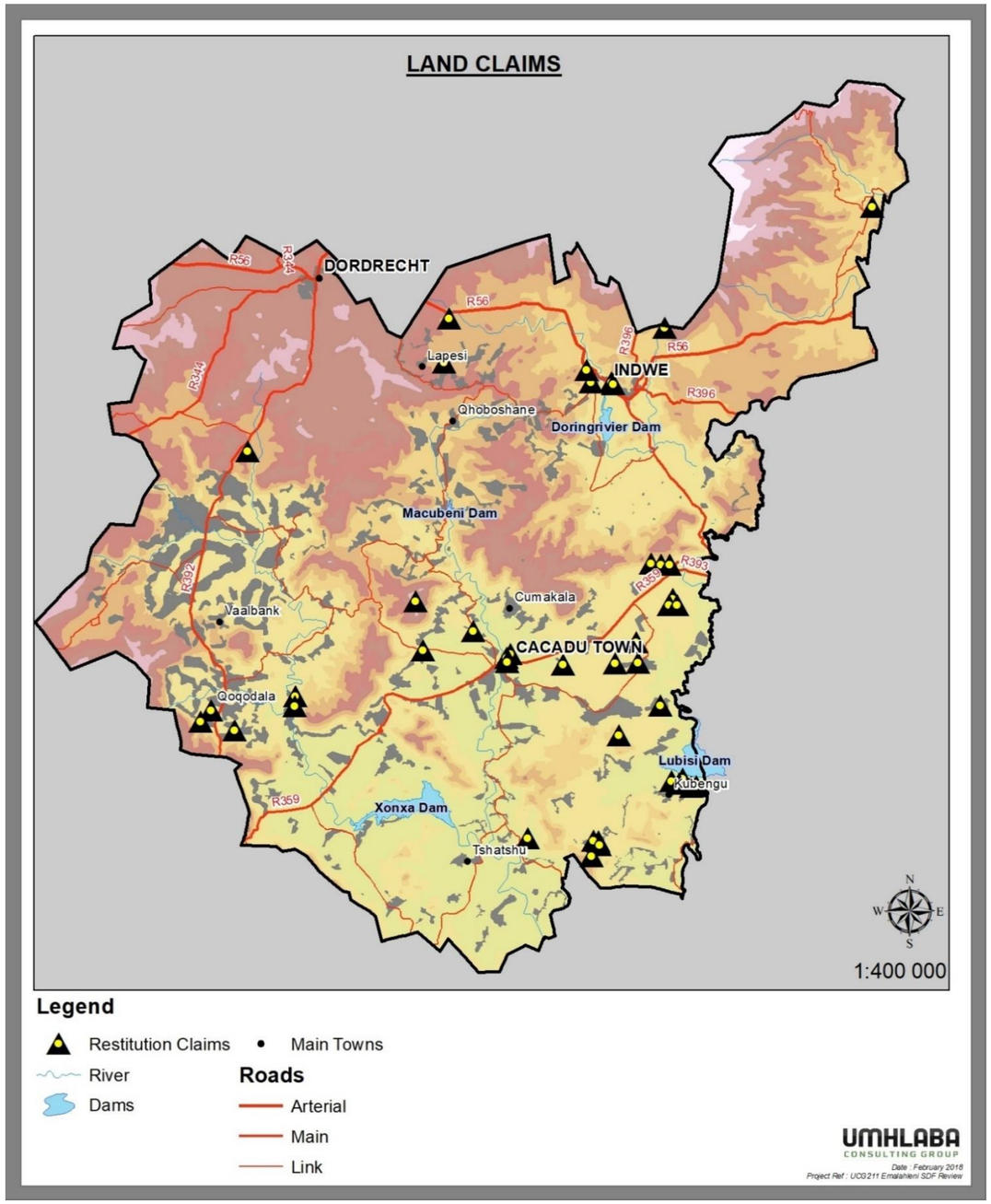
Accordingly, 77 restitution Claims were recorded in the Emalahleni LM. The majority of these claims (94%) are urban claims. The distribution of these restitution claims is illustrated on the Plan 11.12 and given in Table 11.1 below.

Table 11.1: Land Claims in Emalahleni LM

Region	Claim			No. of Beneficiaries
	Urban	Rural	Total	
Lady Frere	47	1	48	827
Indwe	18	3	21	107
Other	8	0	8	37
Emalahleni LM	73	4	77	971

SOURCE: DRDLR

Plan 11.12: Land Claims



11.4 HOUSING

Emalahleni IDP 2017 states that housing within Emalahleni is characterised by more permanent forms of housing, where over 60% of all households reside within formal dwellings and some 35% within traditional structures. About 43% of people in Emalahleni Local Municipality live in a 1 or 2-roomed house. This indicates a mature settlement pattern especially within the areas of Mavuya, Indwe, Manyano, Dordrecht, Bakaneni, Mayalwini, Mphesheya/Gomora, Ngcalasi, Dophu, Mqonci and Platkop, where between 90 - 100% of dwellings are formal structures.

In the remaining settlement areas (including Cacadu Town and Cumakala), increased numbers of traditional dwelling types can be found. Consequently, there are low levels of "homelessness" and informal shack development within the Emalahleni area (i.e. less than 4%).

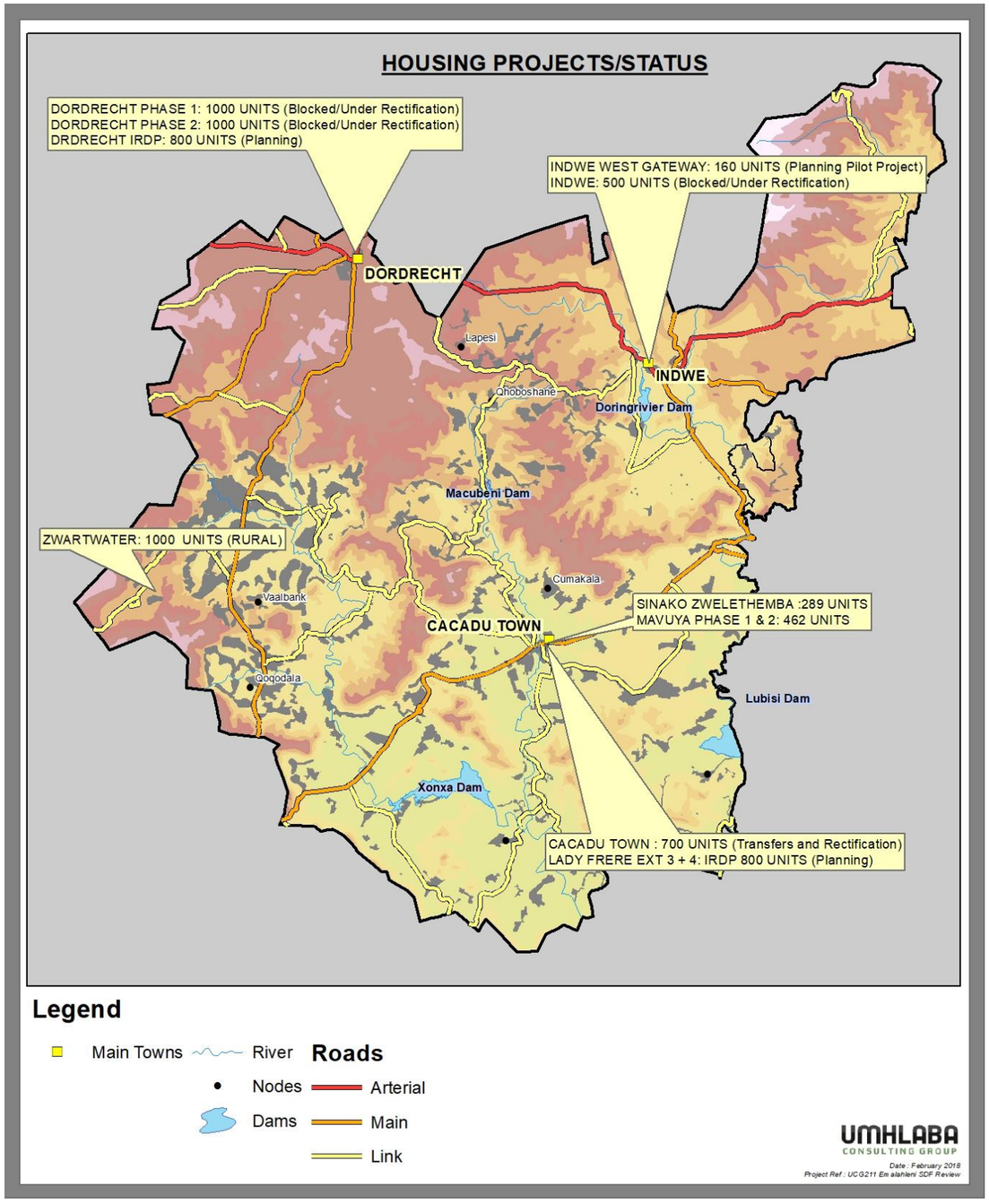
Table 11.2 below, gives details of the current /planned housing projects. Zwartwater (1000 units) is the only rural housing project.

Table 11.2: Current Housing Projects in Emalahleni LM

Project Name	No. of Units	No of Houses complete and transferred	Current Status
Cacadu Town	700		Completing Transfers and rectification underway
Cacadu Town (Ext. 3 and 4: IRDP projects	800		Planning
Dordrecht IRDP project	800		Planning/Pilot Project
Indwe West Gateway	160		Planning / Pilot Project
Sinako Zwlethemba	289		Planning
Mavuya Phase 1 and 2 (new)			Planning
Zwartwater (Rural Project)	1000		Under construction
Dordrecht (Phase 1)	1000	123	Blocked/under rectification
Dordrecht (Phase 2)	1000	400	Blocked/under rectification
Indwe	500		Blocked/under rectification

Source: Emalahleni IDP, 2017 and Mr Landi: Housing Department: Emalahleni LM

Plan 11.13: Housing Projects/Status



11.5 LOCAL SPATIAL DEVELOPMENT PLANNING INITIATIVES

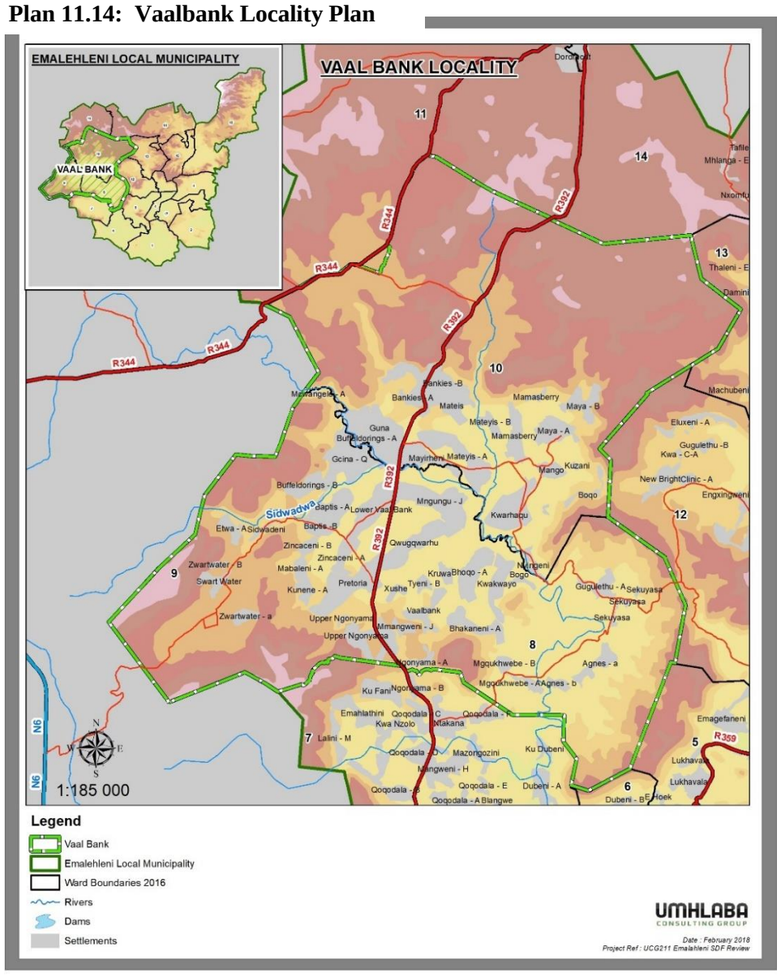
11.5.1 VAALBANK LOCAL SPATIAL DEVELOPMENT FRAMEWORK PLAN

The Vaalbank Local Spatial Development Framework Plan was completed in 2017. A synopsis of the Framework Plan is presented, following:

LOCALITY OF THE STUDY AREA

The study area is covered by Wards 8, 9 and 10, situated in the south western portion of the municipal boundary.

Plan 11.14: Vaalbank Locality Plan



KEY INFORMANTS

Table 11.1: Vaalbank Key Information's

Settlement type	Rural
Demographic Profile: Ward 8:	7902 people (1756 households). Household Density: 4.5
Demographic Profile: Ward 9:	6753 people (1500 households). Household Density: 4.5
Demographic Profile: Ward 10:	5874 people (1518 households). Household Density: 4.5
Subsistence Farming	Small scale livestock farming activity and maize and sorghum crops cultivated for subsistence purposes.
Income	Two thirds of household in the study area earn less than R1600 or no income per month. 36 % of households have no income at all.
Housing	1000 housing units planned in Vaalbank (current project). Most existing houses are brick structures.
Land uses	The existing land uses in this settlement is predominantly: - Residential, existing business structures along the R392, a community hall, existing clinic, 2 Schools, a crèche, agricultural farms and open spaces in between the residential areas.
Main Settlement	Mngungu also known as Vaalbank is the main settlement in the study area, because of the existing business sector in the area. Although this business sector is not fully operational, there is a vision to revive the area.
Road Network	Tarred, district Road, R392 dissects the study area. The rest of the road network is gravel and in a bad state of repair. Roads require upgrade and road infrastructure with storm water drainage.
Access to Water and Sanitation	More than half the population access water from a standpipe, within 200 m walking distance from their home. Less than 20 % access water from a stand pipe more than 200 m from their dwelling and an average of 13 % of households have no access to piped water.

(Source: Vaalbank SDF 2017)

KEY ISSUES / PROPOSALS

The Vaalbank area requires priority basic needs intervention and strategic proposals to improve the level of well-being of communities in these areas. These proposals need to include poverty alleviation programs and basic infrastructure investment.

Table 11.2: Vaalbank SDF Key Issues and Strategic Proposals

Key issue	*Proposals*
Land: Need to resolve land tenure/security	▪ *Important in order to access funds to ensure long-term sustainability of agriculture. Need land release programmes.*
Environment: Land for development is limited due to steep slopes, degradation (soil erosion). Drought spells within the area.	▪ *Initiate erosion preventative methods and rehabilitation of land and riverbanks.*
Infrastructure: Lack of basic infrastructure and services (housing, water, sanitation and electricity). No solid waste management. Backlog in road infrastructure / maintenance.	▪ *Need to provide access to basic infrastructure and services* ▪ *Current housing project: Zwartwater (1000 houses)* ▪ *Proposed middle income housing in business node*
Renewable Energy	▪ *Renewable energy methods (wind solar and biogas) & biofuel production. ELM IDP (2014) aimed to supply renewable energy sources (solar systems) to 3000 households by 2016.*

Agriculture: Need to support agriculture potential in the area. Subsistence farming can potentially be escalated to small-scale commercial level	▪ *Need partnerships /agriculture extension officers to support local community.* ▪ *Training and mentorship: livestock management, sustainable crop production (sheep and maize farming potential)* ▪ *Partnerships to build appropriate agro-processing capacity* ▪ *Irrigation schemes can be augmented / expanded to support agriculture: organic /sustainable enterprises (Vaalbank Water Scheme)* ▪ *Development of an Agricultural Resource centre* ▪ *Fencing of ploughing fields* ▪ *Develop community vegetable gardens*
Retail: The Vaalbank development node is limited in terms of retail outlets. No formal business within the area	▪ *Vaalbank Node proposed on R392, from Dordrecht to Komani, is significant for economic activity in the region.* ▪ *Need to promote local SMMEs, particularly in the retail sector*
Community: Impoverished, low incomes and education levels, High unemployment rate, drug abuse amongst young adults and high crime rate Lack of community facilities (taxi/bus shelters police station, library) and government services.	▪ *Need to provide access to basic infrastructure and social services that directly impact on tourism development, infrastructure, retail development and private investment opportunities within the area.* ▪ *Need police stations, sport facilities, youth development programmes, HIV/Aids and health related programmes.* ▪ *Need a formal Cemetery*

STRATEGIC APPROACH

The strategic development approach is one built on upgrading the Vaalbank Area, catering for the needs of its residents and basic infrastructure to create investor confidence.

Vaalbank Vision*: *Vaalbank is a Business Hub serving the surrounding wards bringing Business, Agriculture and Tourism Opportunities closer to the people"

Spatial Objectives:

- To promote access to land for Development of Sustainable Human Settlement.
- To implement land release programmes.
- To improve the quality of human life through the provision of basic infrastructure services and housing.
- To provide sustainable infrastructure and Integrated Sustainable Human Settlement.
- To provide improved road access and improve the condition of the roads.

Strategies:

- A ward developed to cater for different accommodation needs with associated recreational facilities and investment support to the Agricultural and Tourism Sector. Tourism potential along the mountain range and waterfalls in the area.
- Existing settlement growth is managed by means of a proposed settlement edge, to ensure controlled growth and avoidance of environmentally sensitive/no-go development areas.
- Main intersections are identified as points of potential development nodes.
- Vaalbank Intersection Business Node: Proposed mixed-use development and business expansion at the intersection and along the R392 where the Vaalbank Community Hall is located. Intended to help relieve poverty, attract investment and create employment in the area.

SPATIAL PROPOSALS

The analysis of trends and development opportunities establishes a clear spatial pattern for the Vaalbank study area.

Rural Node: Lower Vaalbank

- A proposed Rural Service Node allowing for a travel distance of 5km/1-hour travel by foot to access its public facilities.
- Areas where medium order community facilities are provided.
- Future rural service centres need to be located in close proximity to public transport routes to ensure maximum accessibility to facilities.
- Local planning is needed to maximize use of resources.
- Local land use schemes to be negotiated.

Business Node: ***Vaalbank Intersection Business Node (on R392)***

- Proposed Business Hub: Existing Business expansion; Proposed Mixed Uses, a Park and Open Space Development, upgrade and provision of internal roads
- Local land use schemes to be negotiated.

Mixed Development Nodes: *Mngungu • Qwugqwarhu • Bhogo-A • Mgqukhwebe-A • Gcina-G • Swartwater • Dum-Dum • Sidwadweni*

- A proposed Mixed Development Node, allowing for a travel distance of 5km/1 hour travel by foot to access its public facilities.

Development Corridors: *The R392 from Queenstown to Dordrecht which is proposed as the main Transport Corridor*

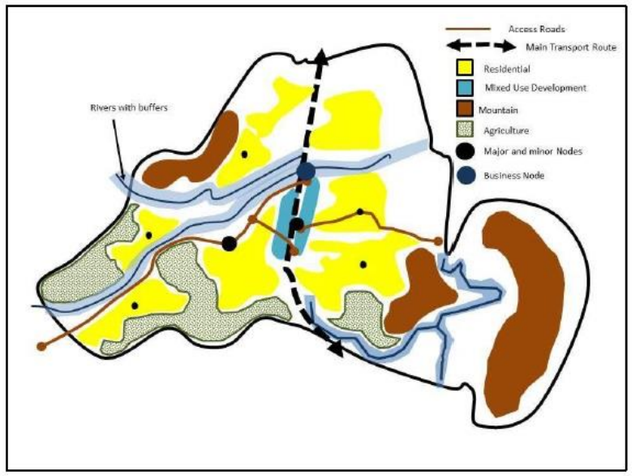


Figure 11.1: Vaalbank Concept Plan

***Vaalbank Typical Land Use*:** Residential, agriculture, woodlots, social facilities, recreational facilities, shops, taverns, small-scale commercial activities, tourism and nature reserves.

Level of infrastructure and services: At least basic level as resources permit

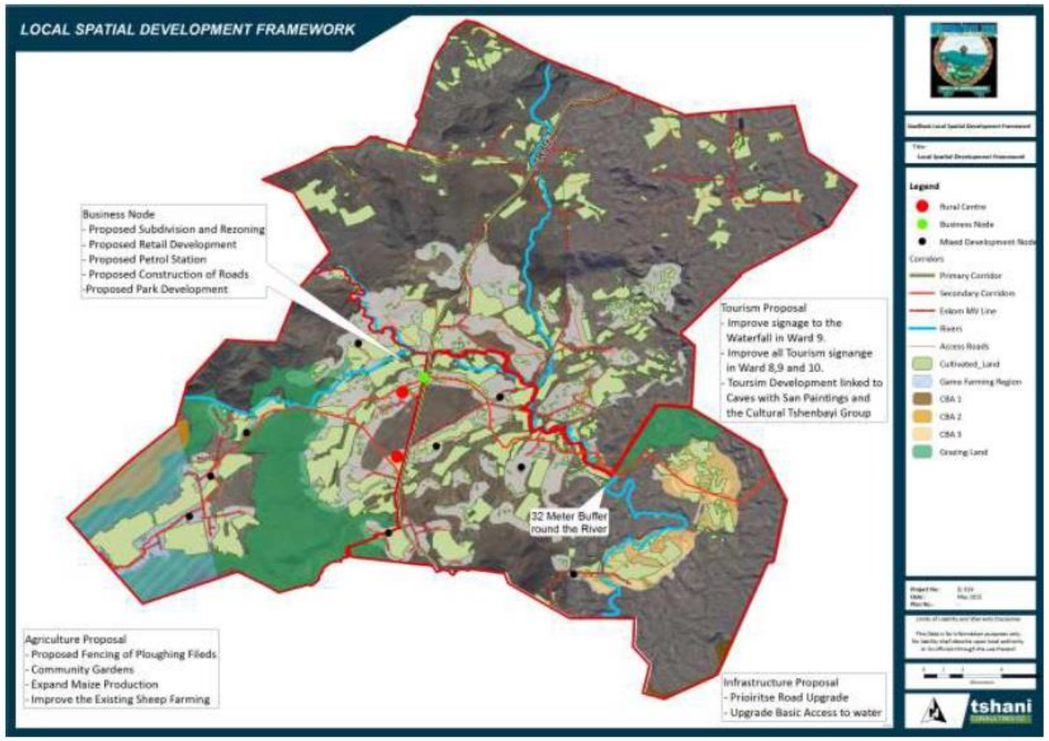
Integrated and broad based agrarian transformation: Agriculture (arable and grazing), subsistence / commercial farming, rural agricultural activities, tourism, resorts, nature reserves (public and private). Leading to sustainable livelihoods, increased rural economic development and improved land reform.

Forestry, tourism, mining and quarrying are renewable energy potential areas, and include: Commercial plantations, indigenous forests, heritage resources and attractions, lodges, holiday resorts/camps, tourist routes, sand and mineral mining, wind farms, bio-gas, hydroelectric, solar energy areas.

***Afforested areas and associated infrastructure*:** Tourism attractions, accommodation and infrastructure.

Infrastructure: Efficient, integrated spatial development of infrastructure and transport systems in shared focus areas: Strategic transport routes, communications, alternative energy, municipal higher order infrastructure (roads, rail, sea and air), water services, cemeteries, etc

Plan 11.15: Vaalbank SDF Spatial Development Proposals



IMPLEMENTATION PLAN

The following projects are proposed in the LSDF Implementation Plan:

Proposed Projects	Implementing Agent
Prepare a Rural Settlement Development Plan for the municipal area.	DLG&TA/ELM/CHDM
Precinct Plan: Vaalbank Intersection Business Nodes	CHDM/ELM
Infrastructure: Road upgrade throughout the entire study area, particularly the main and primary transport routes	DOT/ELM/CHDM
Grading (or tarring) of gravel access roads;	DOT/ELM/CHDM
Provision of piped water to all residential settlements	CHDM/ELM
Better access to sanitation for all households	CHDM/ELM
Electricity supply to all residential settlements	Eskom/CHDM/ELM ESKOM
LED and Agriculture: Proposed fencing of ploughing fields	ELM/DOA
Community vegetable gardens	ELM/CHDM
Feasibility study: Sheep farming and maize production within the area.	ELM/CHDM
Feasibility study: Renewable energy (wind, solar and biogas	ELM/CHDM
Community Services: Construction of a satellite police station or visible police patrolling	SAPS/CHDM/ELM
Renovation and development of sports facilities and playgrounds	ELM/CHDM

11.5.2 XONXA LOCAL SPATIAL DEVELOPMENT FRAMEWORK PLANNING

Chris Hani District Municipality has identified Xonxa Settlement and Xonxa Dam, located in Ward 1 and Ward 6 for local spatial development planning.

The municipal road MR 00661 and the District Road DR08566 traverse the study area.

Limited information was available at the time of preparing this report. However, the following key informants are considered for strategic spatial planning of the Xonxa Area:

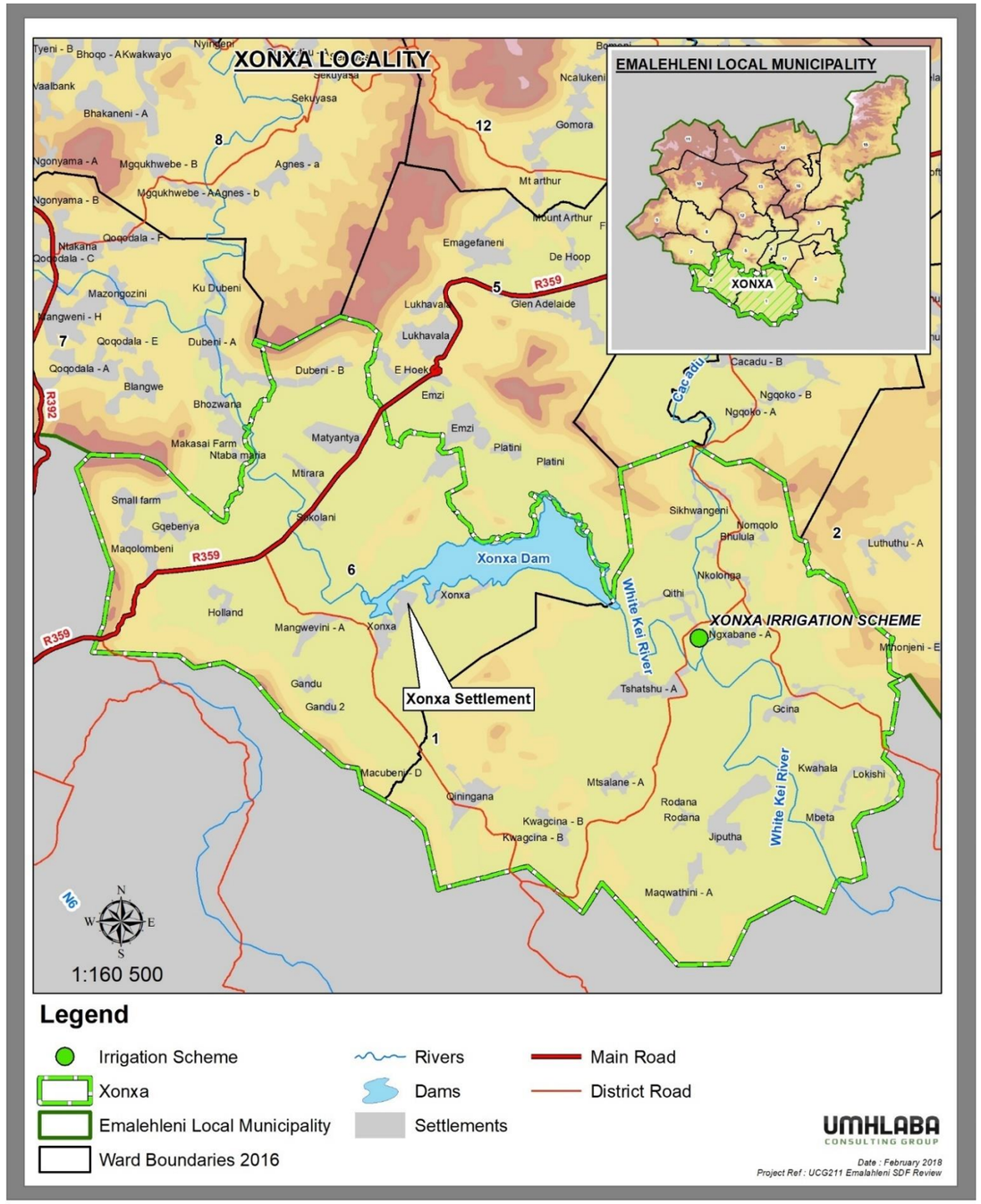
Xonxa LSDF: Key Development Strategies (ELM IDP 2017-2022)

1. Promote Agricultural Development along the dam and within the settlement
2. Promote Tourism development. Lodge development at the dam heritage site development
3. Promote Coal mining for job creation (surrounds of Indwe and Cacadu Town)
4. Introduce public transport routes and corridors.

Strengths of the area:

1. Existing rivers and dams provide water for the irrigation scheme in the area
2. Agriculture potential for maize production and expansion of horticultural activities
3. Irrigation scheme for 5 500 hectares at the Xonxa and Lubisi dams.
4. Potential Eco and Heritage Tourism in the area (Farm-stay tourism accommodation)
5. Coal Mining potential in the area (surrounds of Indwe, Cacadu Town)

Plan 11.16: Xonxa Locality



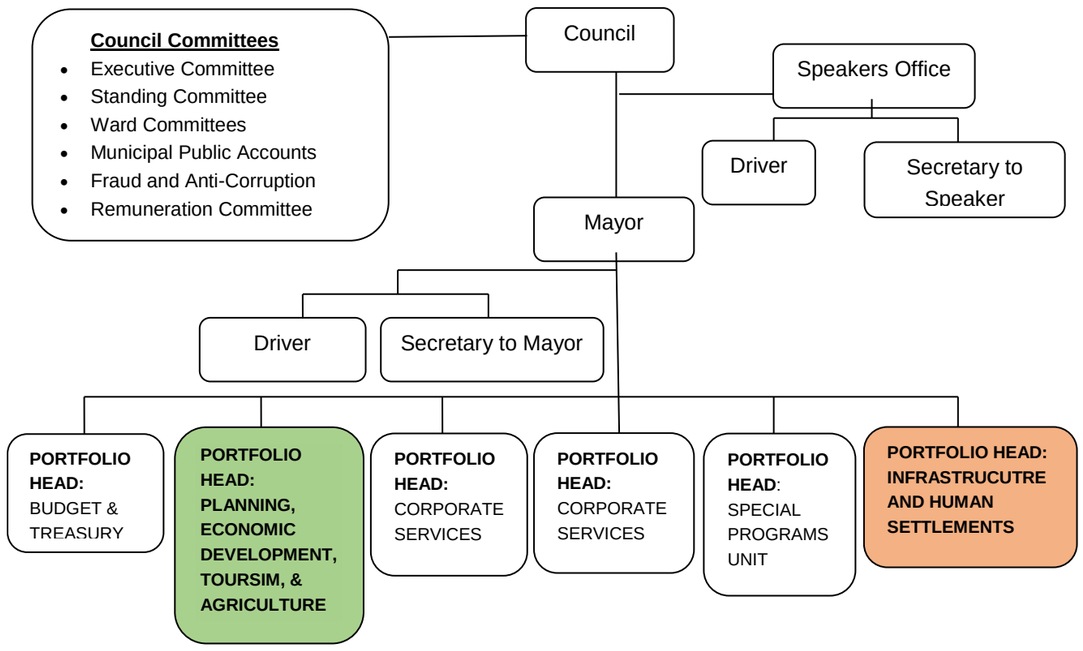
12. INSTITUTIONAL ASPECTS REGARDING SPATIAL PLANNING

12.1 EMALAHLENI LOCAL MUNICIPALITY: HUMAN RESOURCES AND TECHNICAL CAPABILITIES

The IDP 2017-2022, indicates that a Human Resource Development Plan for the Emalahleni LM was being developed with expected completion in March 2017. This plan is intended to ensure that the LM would meet the strategic goals and operations of the Municipality and ensure that the capacity of the municipal staff is sufficient to fulfil these goals and operations. A skills audit of all of the municipal staff was being undertaken.

The IDP 2017-2022 provides the following diagram as the current organizational structure of the Emalahleni LM. The diagram shows dedicated offices / portfolios for both infrastructure development and human settlement planning, which includes a focus on Town and Regional Planning and a portfolio for Planning, Economic Development and Tourism. Focus areas/responsibilities within these portfolios are listed following.

Figure 12.1: Emalahleni Local Municipality Organogram



PORTFOLIO HEAD: INFRASTRUCTURE AND HUMAN SETTLEMENTS

"To render affordable and sustainable basic services to the community and internal departments by enhancing community participation in collaboration with internal departments through partnership and consultation in order to achieve good results and instill ownership."

The Areas of Focus include:

- Facilitation of infrastructure development (where it is not within our power and function);
- To create new infrastructure within our competence; and to maintain existing infrastructure in areas defined below.
- Project management
- Water and Sanitation;
- Electricity and Street lighting (reticulation and distribution);
- Roads and storm water; and
- Processing building plans and quality monitoring.
- Town and Regional Planning

PORTFOLIO HEAD: PLANNING, ECONOMIC DEVELOPMENT, TOURISM & AGRICULTURE

"To ensure that resources (Human, Technical, Environmental and Financial) are organized in such a way as to ensure that jobs are created and poverty is reduced"

Functional Responsibilities:

- Agriculture Development
- Local Economic Development
- SMME Development
- Tourism Development and Promotion

It is important that the capacity within the planning unit be clarified as far as staff, skills and support services are concerned.

13. SUMMARY: KEY SPATIAL DEVELOPMENT PLANNING INFORMANTS

The following conclusions are drawn from the analysis in relation to the assessment of the natural and built environment in the Emalahleni area. This section includes Key Spatial Development Planning Informants cited in the ELM IDP 2017-2022 and the former ELM Spatial Development Framework Plan 2013-2017.

SPATIAL CONSIDERATIONS BIOPHYSICAL ELEMENTS	
CHALLENGES	**RECOMMENDATIONS**
CLIMATE ▪ Unreliable rainfall pattern, with measured increases in global temperatures may cause prolonged droughts and heatwaves ▪ High evaporation levels are more of a constraint to agricultural/crop production than average rainfall patterns ▪ Rainfall patterns favour crop production in the north and north eastern areas, however steep topography and associated susceptibility to erosion renders these areas environmentally sensitive and require careful planning / appropriate preventative measures to be implemented when developed. GEOLOGY ▪ Sandy loam soils favourable for crop production are found in areas south of Indwe, however prevalence of highly erodible claypan /mudstone soils dominate the central and southern parts of the area and therefore necessitates wise land use management and appropriate farming/ grazing practise. BIODIVERSITY – CONSERVATION AREAS ▪ Large portions of land in the northern and north eastern part of the study area and smaller pockets in the central and southern parts are classified BLMC 2 high priority conservation areas. These areas are limited to livestock farming and game farming. ▪ Small pockets of natural / indigenous forests occur south west of Cacadu Town. Wood harvesting is taking place in these areas for domestic use. These are classified as high priority (BLMC 1) conservation areas. LAND COVERAGE ▪ Land coverage indicates that 19 % of land is degraded and 51 % is unimproved grassland. This coverage is evident in and around rural settlement areas throughout the study area. ▪ Degradation of land and loss of potential arable land is of environmental and economic concern. Inappropriate farming practise / overgrazing is a significant contributing factor to widespread land degradation and soil erosion in the study area. ▪ 49 % of land coverage is Vulnerable Tsomo Grassland necessitating careful land-use practise and conservation planning. LAND CAPABILITY ▪ Land capability plan indicates moderate /limited availability of arable land (Class 3). ▪ Land capability plan indicates that the southern and south western part of the study area is not suitable for crop production (Class 5).	➢ *Appropriate farming/grazing practise is required to protect the land from further degradation. This will require farming support programmes and implementation of necessary infrastructure to improve farming practise.* ➢ *Prevalence of Vulnerable Tsomo Grassland in the north and south necessitates careful land use management and conservation practise.* ➢ *Localized spatial planning is necessary to guide strategically targeted areas for specific agricultural initiatives.* ➢ *Management of un-planned and un-managed rural settlement growth is critical to limit further encroachment and degradation of valuable lands for agriculture.* ➢ *Appropriate management overlays are required to ensure that sensitive / priority environmental areas are considered when planning for productive use or processing land development applications*

BIOPHYSICAL ELEMENTS	
OPPORTUNITIES	
IRRIGATION FOR DRY LAND CROP PRODUCTION ❖ Potential for irrigated crop production due to existing irrigation schemes/infrastructure in the vicinity of Xonxa, Macubeni and Lubisi Dams. HIGHER RAINFALL AREAS FAVOUR CROP PRODUCTION ❖ High rainfall in north and north eastern part of the area is favourable for crop production, however careful consideration must be given to steep topography and levels of high erodibility in parts of this area. GEOLOGY ❖ Favourable soils (sandy loams, good water characteristics) are found in areas south and south east of Indwe Town. Favourable for dry land arable agriculture. ❖ Maize production potential is highest in the eastern part of the study area which corresponds with highest rainfall patterns in the area and good sandy loam soils dominant in the central and southern areas (around Cacadu Town). ❖ Sorghum and Maize production potential exists in the south eastern area in the vicinity of the Xonxa Irrigation Scheme LAND COVERAGE AND LAND CAPABILITY ❖ The extent of unimproved grassland is good for potential livestock production (sheep/cattle). Coverage is dominant in the central and northern parts of the study area. In terms of Grazing Capacity (LSU/hectare), beef-cattle farming is favoured in the central and south western parts of the study area. ❖ Land capability plans indicate that south and south western areas are limited to forestry and livestock farming. The Xonxa Dam and irrigation scheme is in this vicinity. ❖ Land capability plans indicate potential for moderate crop farming surrounding Cacadu Town and the northern and central areas. ❖ Land capability plans support limited crop production (Class 4) in the north east. The presence of Tsomo Grassland in this area, necessities wise land use and conservation planning in this area.	➢ *Xonxa Irrigation Scheme in the southern portion of the study area is the subject of a revitalization programme for the Dept of Agriculture. This could increase crop production potential of the area, especially in the south where dry land arable crop production is favourable.* ➢ *Augmentation and management of irrigation schemes (Xonxa, Machubeni, Doring River) to support crop production is required*

SOCIO ECONOMIC ELEMENTS	
CHALLENGES	**RECOMMENDATIONS**
▪ Two thirds of the population earn less than R1600 per month and live in poverty. The economically active youth unemployment rate is 55 %. A quarter of the population have no formal education. 64 % of the population are (< 15 yrs and > 65 yrs old) do not contribute to the economy. ▪ This places a burden on the state to provide social support grants to these areas, with the risk of ongoing dependency on state for support. ▪ Low spending power and skills base is a major constraint to economic and social development in the area	➢ *Access to education programmes, schools and related infrastructure is imperative to increasing literacy levels and competency to meaningfully contribute to the growth of the local economy.* ➢ *Early Childhood and Youth Development Programmes need focussed attention to empower youth to improve their living standards and not remain trapped in a cycle of poverty and state dependency.* ➢ *Numerous ECD centres are located in the 3 towns. Priority should be given to upgrading and facilitating ECD centres to support Early Childhood Development Programmes.* ➢ *Consideration and possible prioritization of upgrading and resourcing the Agricultural Schools in the area and other education institutions.* ➢ *Poverty in Emalahleni needs to be understood at the community level to ensure appropriate development and prioritisation of funding with focussed attention to rural areas. The expressed need and local knowledge can guide development investment decisions best suited to the area.*
OPPORTUNITIES	
❖ There are numerous Early Childhood Development Centres in the 3 Towns of Emalahleni that provide place and opportunity for implementation of youth and early childhood development programmes. ❖ The two Agricultural Schools offer education opportunities to empower youth to meaningfully contribute to the economic potential that the agricultural sector offers Emalahleni. Resourcing and upgrading these schools was an expressed need of the communities	

RURAL DEVELOPMENT AND LAND TENURE	
CHALLENGES	**RECOMMENDATIONS**
❖ Rural areas are under-developed and characterised by a fragmented settlement pattern. ❖ Communally owned land or land held by Tribal Authority can hamper development as it discourages investment potential on land where formal title is absent.	➢ *Issues related to land tenure need to be addressed so that identified priority projects are not hampered. A Local Planning process is required to clarify land use rights and to formalise the layout of the relevant area*
OPPORTUNITIES	
❖ Local Spatial Development Planning Initiatives at Vaalbank and Xonxa provide opportunity for social and infrastructure investment into the surrounding rural areas. Local Spatial Development Planning is proposed for the Machubeni area.	

ECONOMIC SECTORS	RECOMMENDATIONS
CHALLENGES	
COMMUNITY SECTOR: ▫ The community sector, which includes the government services, contributes 50 % to Emalahleni's GVA, highlighting the lack of diversity in the economy. **AGRICULTURE:** ▫ The Agricultural Sector is prone to very high volatility as a result of uncertain weather conditions, pests and other natural causes which are not considered in forecasts. ▫ Most farming is practised on a subsistence basis and not for the formal market economy ▫ Low literacy levels and capacity to grow the agricultural based market economy. ▫ Lack of infrastructure to support local farming enterprise. Widespread need expressed for dipping tanks, shearing sheds, farmer support programmes, tractors, etc. **TOURISM** ▫ Un-managed and un-planned land use and settlement development in rural areas outside of the town jurisdictions is a threat to the sustainable use of resources that are key to the economic development of Emalahleni, specifically in the agricultural and tourism sectors.	➢ *Critical attention needs to be given to the conservation of historical sites and the natural environment.* ➢ *Access and upgrading of roads and supply of both basic and higher order infrastructure and service provision to support the potential growth of the tourism sector is critical (e.g. health and safety facilities at tourism nodes.)* ➢ *Development initiatives in the area must focus on the people and their skills and abilities to learn. Projects must be identified that make use of local knowledge and related skills inputs must be provided. This may require interventions from outside agencies / departments to provide the appropriate support.*
OPPORTUNITIES	
MINING ❖ Clay deposits in the north eastern part of the study area offer mining potential and for development of clay brick making industry in Dordrecht and Indwe ❖ Coal deposits in the central and north eastern area of Emalahleni around Indwe, offer potential for mining extraction. ❖ Proposed re-opening of the railway line from Dordrecht to Indwe / Sterkstroom will be an advantage to access markets and processing plants of mining and other potential export products. **AGRICULTURE** ❖ Agriculture is recognised as a sector of economic potential and growth in the future. ❖ A sorghum production programme has been developed to provided adequate raw materials to the milling plant ❖ The proximity of Komani (former Queenstown), the main administrative and economic centre in the District, provides opportunity as a market for the export of local agricultural product for sale and processing there. **TRADE AND RETAIL** ❖ Secondary Sector: Trade and retail is the second largest contributor to Emalahleni's GVA, focussed in the towns of Indwe, Dordrecht and highest in Cacadu Town **TOURISM** ❖ The scenic natural landscape, mountain passes, dams and rivers, San rock paintings, offer potential for heritage, eco-tourism and farm-stays in the area. ❖ The Ndondo Liberation Route follows the R356 through Cacadu Town along which significant historical sites are ❖ located. Historical buildings of interest are located in the three towns (Indwe, Dordrecht, Cacadu Town	

BUILT ENVIRONMENT	
LAND AND SETTLEMENT	
CHALLENGES	**RECOMMENDATIONS**
❑ 3 % of the land is urban built up land and accommodates 18 % of the population in the towns of Indwe, Dordrecht and Cacadu (Formerly Lady Frere). ❑ In-migration is occurring in the towns and little or no in-migration is taking place in the rural settlements. This places pressure on demand for goods and services and infrastructure provision in urban centres. ❑ 82 % of the population reside in approximately 235 rural settlements. Most of the rural settlements are concentrated in the central, southern and south western portion of the study area. More than half of these settlements have less than 500 inhabitants. Dispersed low density settlements are costly to service and provide infrastructure. ❑ Jurisdictional uncertainty over land use management authority in areas outside of Cacadu Town town commonage appears to be resulting in unmanaged / unplanned settlement development, especially in areas along transport routes due to ease of access to other areas/services centres. ❑ This trend of un-managed settlement development occurring along main transport routes threatens the use of the major routes for effective transportation of goods and people. ❑ Un-managed and un-planned settlement is a threat to the sustainable use of natural resources in rural areas outside of the towns. Competition for resources in rural settlement areas (residential, cultivation and free-range grazing) places pressure on land and existing resources.	➢ *With the majority of inhabitants residing in rural areas it is imperative for the Municipality to adopt rural development strategies as a matter of priority.* ➢ *The trend of settlement patterns occurring along main transportation routes, around the towns and along main river courses, indicates the community's priority for accessibility/ease of movement and also access to water to support their subsistence base farming lifestyle.* ➢ *This supports the densification and planning of settlements along major transport routes and towns and is cost-saving for concentrated service and infrastructure delivery.*

INFRASTRUCTURE AND HOUSING	
CHALLENGES	**RECOMMENDATIONS**
❑ Water and sanitation backlogs remain critical, especially in the south and western rural settlement areas. ❑ Un-planned and un-managed settlement growth in rural areas renders service and infrastructure delivery costly and unsustainable. ❑ Suspended housing and rectification projects are evident in the towns of Emalahleni hampering housing delivery.	➢ *The eradication of backlogs in the provision of basic services in the worst-off rural settlement areas remains an ongoing objective.* ➢ *In both rural and urban areas, a sound planning framework and a clear system of land use management is essential to improve the sustainable provision of infrastructure.*
OPPORTUNITIES	
❖ The Chris Hani Cluster Eradication Programme is addressing water and sanitation backlogs throughout the study area. The Water Eradication programme is focussed in the rural settlements of Wards 1,2,4,6,7,8,10,13,14. ❖ The majority of the population are housed in formal or traditional structures with low levels of "homelessness" /shack development (4 % of households). Zwartwater Rural Housing Project (1000 units) is under construction in the Vaalbank area.	

SETTLEMENT HIERARCHY AND FUNCTION	
CHALLENGES	**RECOMMENDATIONS**
❑ As indicated in the former ELM SDF, Emalahleni may be considered of marginal significance to the national space economy (where the dominant regions include Gauteng/Tshwane, the Western Cape and the eThekwini Metropolitan area) as well as the Eastern Cape economy whereby the space economy is dominated by the Nelson Mandela and Buffalo City Metro's. ❑ Given Emalahleni's relative position to major economic centres and the key transportation routes of the country, it appears likely that Emalahleni will remain relatively marginalised ❖ Emalahleni is characterised by dispersed rural settlements with densification of settlement occurring in an un-planned and un-managed way along major transport routes serving the area.	➢ *It is key that major routes (proposed development corridors) are upgraded and maintained to facilitate access between key economic towns (development nodes). Linkages to higher order nodes must be prioritised* ➢ *Urban management and upgrades in the towns of Cacadu Town, Indwe and Dordrecht must be carried out to improve the quality of these urban areas and increase their competitive edge in the regional economy,* ➢ *A hierarchy of urban and rural service centres needs to be created where higher order goods and services may be accessed and where social and economic facilities could be clustered.* ➢ *Urban management in all three towns is important to support future plans for growth.* ➢ *Infrastructure in the town for both basic and higher order services needs to be managed and extended to support residents and businesses operating there* ➢ *Need focussed attention to wise land use and management thereof, specifically along main transport routes in the context of the regional and national space economy. National and regional routes need to be better protected from un-managed settlement development encroachments.*
❖ **OPPORTUNITIES**	
❖ Cacadu Town is the main economic hub in Emalahleni with strong wholesale and retail trade functions to the surrounding rural areas. Its direct access to Komani (the main economic and administrative centre in the District) via the R359, provides opportunity for trade and industry and access to strategic markets in the province. ❖ Indwe town has a rural service centre function. Mining potential in the area provides opportunity for Indwe to be formalised to support this activity. ❖ Dordrecht plays a service centre role to surrounding rural settlements and commercial farms.	

14 CONCLUSIONS: KEY SPATIAL DEVELOPMENT ISSUES

A consideration of the above suggests some specific **Key Spatial Development Issues.** These are highlighted as: -

- Focussed strategic development and planning must not be done in isolation of **local need** and should be **guided by local knowledge and the lifestyle practices** inherent to the communities living there.
- For under-developed rural areas, **the importance of linkages and accessibility** to areas of service / support and opportunity is fundamental.
- **Fragmentation of jurisdiction over land management functions in urban and rural areas**, which relates to the challenges and threats emanating from a *de facto* lack of formal control over the majority of the land area making up the Emalahleni Municipality, outside of the proclaimed town areas.
- **Inefficient and "uneconomical" Urban and Rural Settlement Patterns vs the need for Providing Services to Meet Basic Needs**, which refers to the tension between the reality of the inefficient settlement pattern prevailing in the urban and rural areas of Emalahleni versus the stated need to provide a basic level of infrastructure and social services to all residents of the Emalahleni area.
- The challenge, in the **long term,** is to provide infrastructure and quality social services to all settlements in Emalahleni in a sustainable manner. This requires strategic approaches to dealing with the difficulties posed by the sprawling, low density settlement patterns found in the area as well as the lack of local productive economies to provide residents with the means to contribute toward the cost of provision.
- Given the importance of the natural environment in the development of the Emalahleni space economy, **implementing environmental management (wise land use)** becomes critical to ensuring the sustainable use of the available resources and natural endowments (i.e. the natural environment, agricultural lands etc.).

15 SPATIAL PROPOSALS

15.1 INTRODUCTION: A STRATEGIC FRAMEWORK FOR THE SDF

The Vision and Mission statement serves as the strategic guideline within which the municipality must respond to the key spatial development issues evident in their arear of jurisdiction.

15.2 EMALAHLENI MUNICIPALITY'S VISION, MISSION AND VALUES

In Emalahleni, the long-term **VISION** in the IDP is set out as: -

> *"A municipality that delivers appropriate, sustainable and affordable services towards socio-economic growth for the development of its community."*

The Municipality's **Mission Statement** is given as: -

> *"Emalahleni Municipality promotes quality and excellent services that are valued by its customers through effective partnerships and active community participation as it plans for the future"*

15.3 OBJECTIVES AND STRATEGIES IN RELATION TO THE KEY ISSUES

Considering the strategic intent of the Municipal Vision and Mission, the following sets out the combined key development issues identified in the IDP period 2017- 2022 and those identified in the analysis phase of this Spatial Development Plan and how they relate to the strategic objectives of the Municipality.

Key Spatial Development Issues	Relationship to the Strategic Framework of the IDP
Focussed strategic development and planning must not be done in isolation of local need and should be guided by local knowledge and the lifestyle practices inherent to the communities living there.	Whilst this has non-spatial implications it is imperative to understand local need and elicit local knowledge and resources so that appropriate and sustainable development occurs and is valued by the communities. This is in line with the strategic objective of the Municipality *to ensure development and implementation of improved systems of communication, public participation and good governance.*
The importance of linkages and accessibility to areas of opportunity	Safe and well-maintained road network is key to the sustainable social and economic development of any area. The municipality's strategic objective *to ensure the provision of a comprehensive roads infrastructure network* is key to supporting the strategic departmental objectives: To facilitate and urge for the establishment of necessary LED infrastructure, that will in turn support the Municipalities intent to implement Local Economic Development Plans focused on key tourism development areas and the promotion of agriculture and mining activity in the area. Good access to health, education facilities, areas of economic opportunity are vital to the wellbeing of communities and the extent to which they are able *to participate in improving their own lives and plans for the future.*
Fragmentation of jurisdiction over land management functions in urban and rural areas.	Lack of formal land tenure outside of the urban centres, limits the extent to which the Municipality can fulfil its roles and functions outside of the urban areas. This relates directly to the strategic imperative of the *municipality to engage in effective partnership approaches* in dealing with its core functions and responsibilities so that it has key input into settlement development and land use throughout the municipal area. Cooperative governance in communal land areas is important.
Long term provision of infrastructure and quality social services to all settlements in Emalahleni in a sustainable manner.	*To provide, improve and maintain infrastructure and basic services to local communities and or households by June 2022.* The fragmented nature of rural settlements of varying densities throughout the study area and increasing population and densities in the urban areas poses an enormous challenge to the municipality in this regard. It becomes important to consider areas of greatest need and areas that offer potential for social and economic benefit to the area as a whole to guide where basic infrastructure investment and investment for special development programmes is prioritised.
Implementing environmental management (wise land use) to ensure sustainable use of resources.	Being a largely rural area with numerous activities competing for use of the regions natural resources makes this objective critical to the sustainable development of the area. Wise and strategic land use management is imperative to the municipality achieving its *visions to deliver sustainable and affordable services towards economic growth and development.*

15.4 Proposed Spatial Development Objectives and Strategies.

The following spatial development objective and strategies are proposed to correspond with the spatial development issues outlined above:

Key Issue	Objectives	SDF Strategies
The importance of linkages and accessibility to areas of opportunity	◻ To provide a well-structured and well-maintained road network throughout the study area, in partnership with relevant transport authorities, with consideration to the road hierarchy. ◻ To ensure the safety of people settled alongside major transport routes and the safety of commuters	➢ *To partner with the Department of Roads and Transportation and prioritise the upgrade and maintenance of the road network in the study area.* ➢ *To set in place measures to ensure the integrity of the major mobility routes (the R56, R392 and R393) which need to be managed in certain places to mitigate the impacts from encroachment of settlements and ensure the safety of commuters and local inhabitants.* ➢ *Plan for the upgrade and maintenance of rural roads to and from areas of strategic importance on a prioritised basis and priorities roads that are key linkages between identified development nodes, corridors and /or special development areas.* ➢ *Plan for the refurbishment of public transport facilities (Taxi Ranks and Bus Termini) in the towns of Cacadu Town, Indwe and Dordrecht as well as in identified rural development nodes of Vaalbanks, Machubeni, Xonxa, Ndonga and Cumakala.* ➢ *Where applicable within major settlements, plan, develop and maintain appropriate pedestrian routes to safeguard pedestrians and prevent intrusion into unsafe and/or conservation-worthy terrain.*
Fragmentation of jurisdiction over land management functions in urban and rural areas.	◻ To address land tenure issues through strategic partnerships and cooperative governance in rural areas ◻ To develop an efficient and integrated settlement pattern in urban centres and their rural surrounds ◻ To develop an agreed upon and accepted land use management system that ensures appropriate spatial management in urban and rural environments.	➢ *To initiate local planning processes to clarify land use rights and to formalise the layout in relevant local areas, especially of strategic social and economic importance, such as the Xonxa Irrigation Programme and LSDF, Vaalbank LSDF and other strategically identified development nodes, corridors and special development areas. The Machubeni LSDF.* ➢ *To set up meetings/ establish a forum for cooperative land management and land use decision making in Emalahleni between the Local Municipality, Local Traditional Authorities and relevant District Departments.*
Long term provision of infrastructure and quality social services to all settlements in Emalahleni in a sustainable manner.	◻ To eradicate backlogs in the provision of basic services in worst-off rural areas ◻ To provide/maintain basic infrastructure / services to settlements of greatest need ◻ To provide/ augment services and infrastructure to strategic areas of potential economic and social benefit to the municipal area and region.	➢ *Prioritise areas of greatest need to eradicate the backlog of basic infrastructure and services* ➢ *Prioritise areas of greatest need for the provision of basic infrastructure and services to alleviate poverty and develop a priority-based implementation programme in partnership with relevant implementation agents.* ➢ *Prioritise areas with strategic social and economic benefit, as defined by strategically identified hierarchy of nodes, corridors and special development areas and implement a priority phased approach to infrastructure investment into these areas, in partnership with relevant stakeholders (Government, Development Agencies, Private Sector, Traditional Authorities, Local Community).*
Implementing environmental management (wise land use) to ensure sustainable use of resources.	◻ To ensure land management and wise land use practise is implemented throughout the study area ◻ To implement an effective land use management system that responds to the development needs and potentials of the area and mitigates against unplanned and un-managed settlement growth ◻ Land development is managed in line with a structured approach to settlement design and land development processes so as to ensure sustainability as a critical outcome.	➢ *Manage land development in line with applicable legislation and/or land use management guidelines related to the identified spatial structuring elements (Nodes, Corridors and Special Development Areas) within the Emalahleni area.* ➢ *Ensure compliance with the relevant procedures for environmental management in terms of NEMA.*

15.5 SPATIAL STRATEGIES AND RELATED STRUCTURING ELEMENTS

This section focuses on the identification of Spatial Structuring Elements within the spatial area of Emalahleni Municipality. Spatial structuring elements are used to identify areas where different types of land uses should be permitted and/or discouraged and thus form the building blocks that guide future spatial planning in the Emalahleni area. These are presented described below and presented in Figure15.1: Spatial Development Concept Plan: -

1. **The Concept of Development Nodes**

Development nodes are categorised as those towns or places where a significant number of functions commonly deemed to be urban are found. These functions would include public administration facilities/institutions, business activities, social and recreational facilities and other existing or potential economic enterprises (including tourism-related enterprises). Such nodes are often located on main transport routes to provide maximum access and act as catalysts for new growth and development. As such, they are areas where the following should be prioritised: -

- *Appropriate levels of development investment in infrastructure.*
- *Appropriate land use management to promote preferred development outcomes.*

2. **The Concept of An Urban Edge**

An Urban Edge is proposed for the three towns, in an effort to consolidate the urban areas and achieve more compact settlement patterns. The areas beyond the urban edge are defined as rural, which implies a lower density settlement pattern with basic infrastructure and social facilities.

3. **The Concept of Development Corridors**

An efficient and accessible transportation network is vital for successful spatial development, especially in a rural municipality such as Emalahleni, where access to higher level goods and services in the rural settlements is limited. The need for residents to have ease of access to goods and services.is of socio-economic benefit to them and vital for the broader developmental of the area.

- *Development corridors are those routes that have particular importance at a Municipal level.*

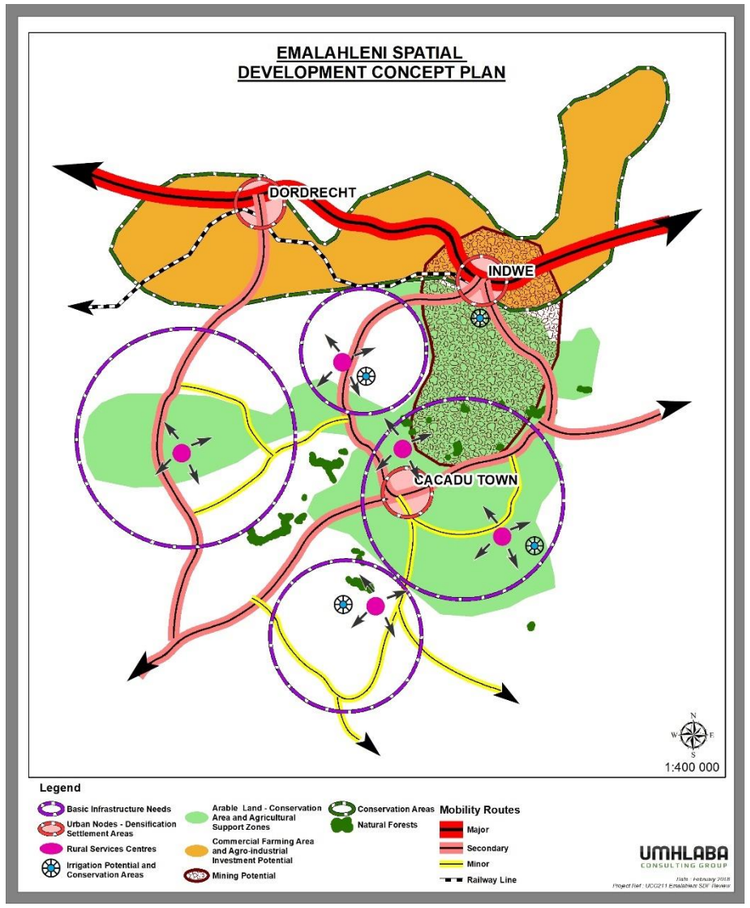
4. **Areas Where Environmental Constraints Apply**

The environmental conservation and management areas in Emalahleni comprise all afforested areas, nature reserves, river flood plains, wetlands, steep slopes in excess of 1 in 5 gradient and fragile ecosystems. It is vital to conserve these areas where there are numerous and diverse activities competing for use of the natural resources throughout the ELM area.

5. **The Concept of Strategic Development Areas**

The Municipality needs to identify areas of key development need (i.e. worst-off areas where infrastructure backlogs persist) or areas of development potential, where the allocation of resources and spending will be prioritised. This supports the phased approach to development, targeting areas of greatest potential first as promoted in the National Spatial Development Perspective and the Eastern Cape Provincial Spatial Development Plan.

Figure 15.1: Spatial Development Concept Plan

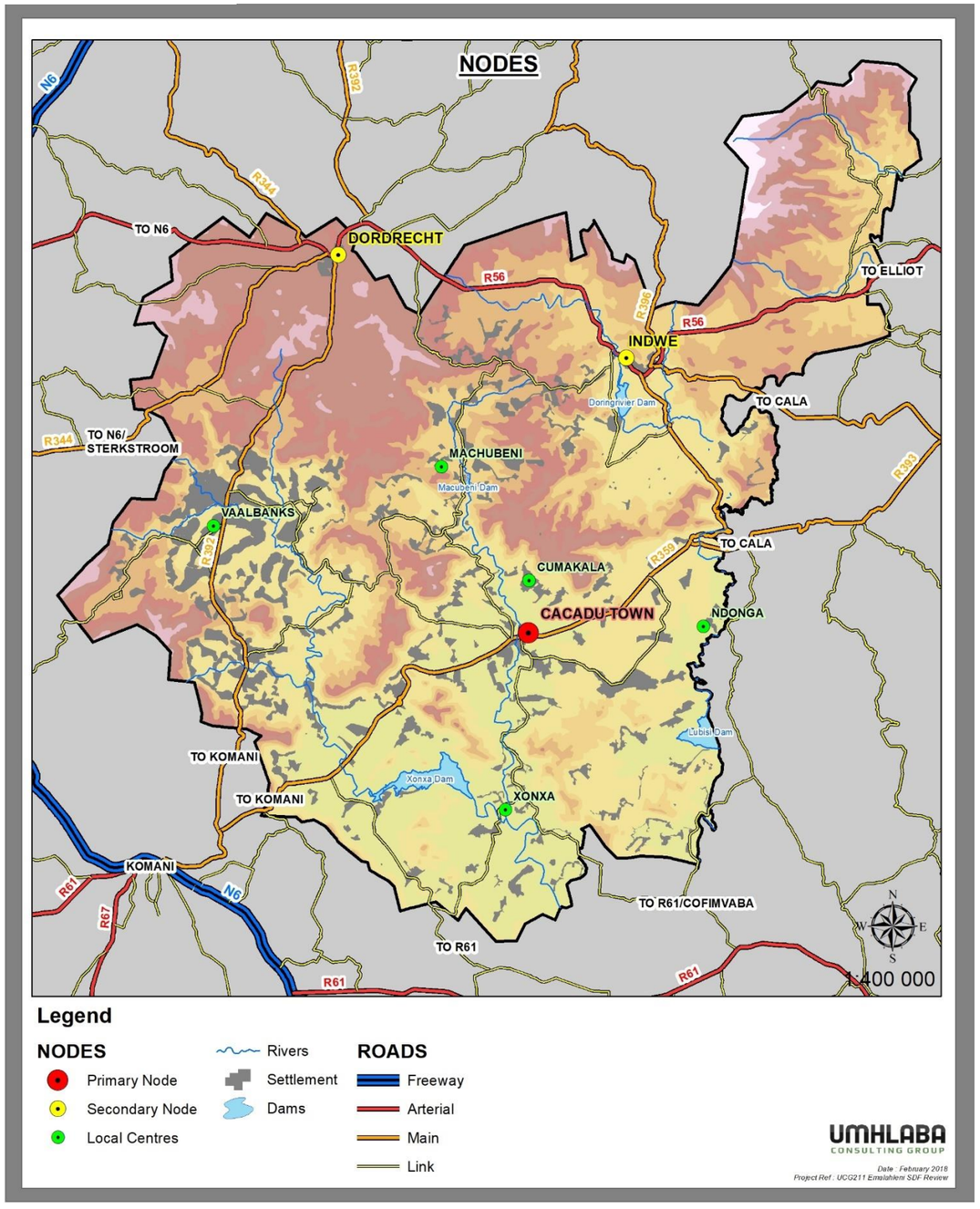


15.6 DEVELOPMENT NODES OF IMPORTANCE

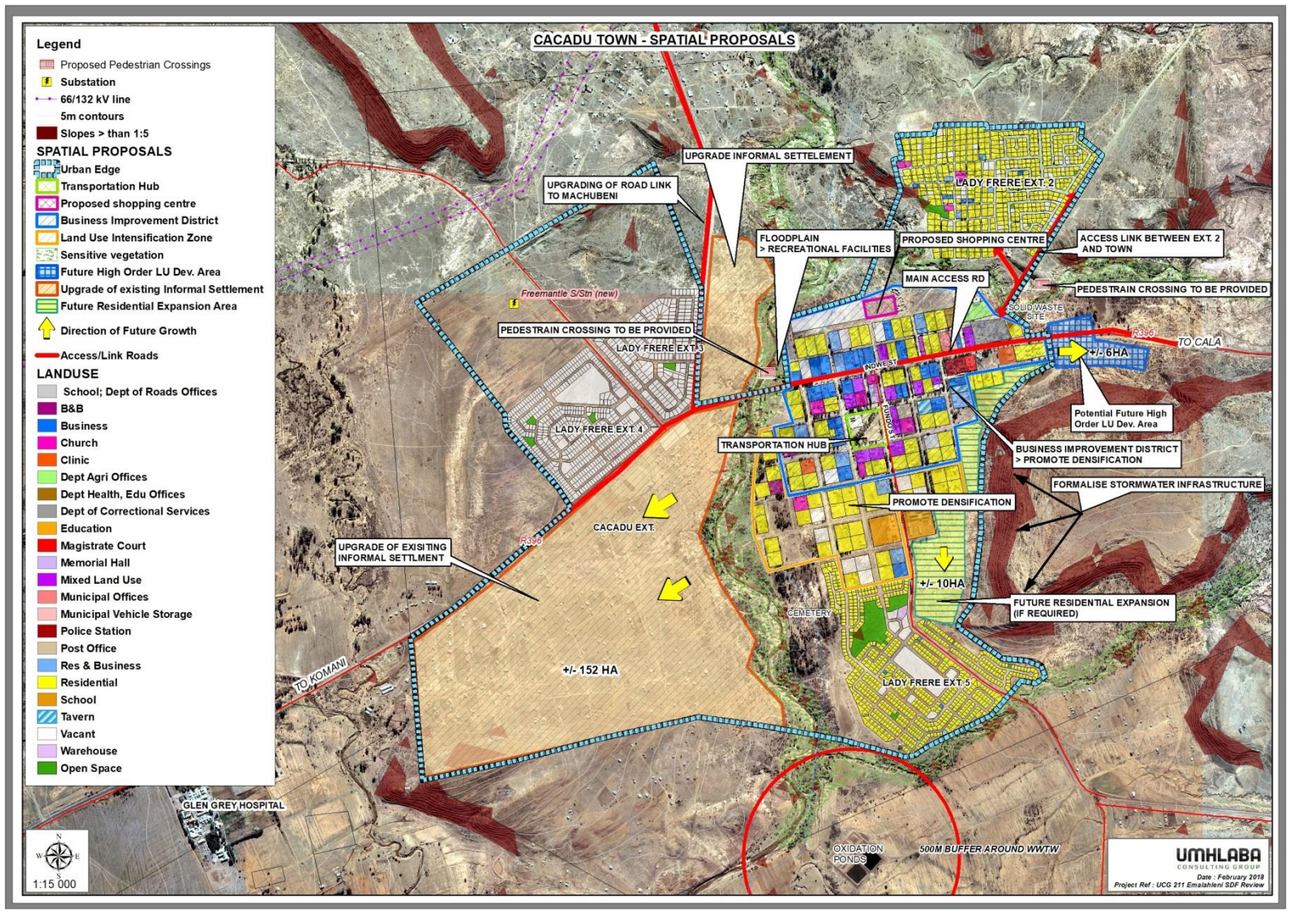
The Municipality needs to identify nodes in order to allocate appropriate levels of investment in infrastructure and services and to be able to implement appropriate land use management strategies. **The following classes of nodes have been identified and / or are proposed for Emalahleni LM:**

NODE	NAME	ROLE	SPATIAL DEVELOPMENT PRIORITIES
PRIMARY URBAN DEVELOPMENT NODE (Sub-District Service Centre)	CACADU TOWN	❑ Main Retail, Commercial, Industrial & Administration (Govern. Services) Node ❑ Main Centre for Social Services ❑ Residential Function for permanent and temporary residents ❑ Potential for agro-industrial processes ❑ Promote diversity of tourism: leisure, heritage ❑ Key linkage to Komani (Queenstown) – Main regional centre in the District.	▪ Managed urban expansion and Public Funded Housing Expansion ▪ Urban – Rural interface design and management ▪ Infrastructure development and maintenance to support businesses and residential property ▪ Business Centre Management and focus on Urban Aesthetics ▪ Improved pedestrian and vehicular linkages between suburbs in town and between towns (key economic towns/nodes). Prioritise linkage to higher order nodes. ▪ Social facilities: Focus on Education/Health and ECDC's, cemeteries. ▪ Environmental management and conservation
SECONDARY URBAN DEVELOPMENT NODES (Local Service Centres)	DORDRECHT & INDWE	❑ Local-scale retail, industrial and administration nodes ❑ Service centres to rural areas ❑ Cater for permanent and temporary residents ❑ Potential for value- ❑ adding agro-industrial mining processes ❑ Potential for tourism services and facilities	▪ Managed urban expansion and Public Funded Housing Expansion ▪ Infrastructure development to support business, tourism and residential expansion potential ▪ Business Centre Management and focus on Urban Aesthetics ▪ Improved pedestrian and vehicular linkages between suburbs in town ▪ Social facilities: Focus on Education/Health and ECDC's, cemeteries/agricultural schools. ▪ Environmental management and conservation
RURAL NODES (Sub-Local Service Centres)	VAALBANKS, XONXA, NDONGA, MACHUBENI, CUMAKALA	❑ Commercial and Social Facilities serving surrounding rural areas	▪ Basic level of service provision and extension ▪ Augmentation and upgrade of existing commercial / agricultural infrastructure ▪ Local planning to maximise use of resources ▪ Appropriate land use management and Administration: Local land use schemes to be negotiated. ▪ Environmental Management is critical ▪ Community engagement: participatory planning and project programmes
Rural Settlements	ALL OTHER RURAL SETTLEMENT	❑ Providing residents with necessary infrastructure and services	▪ Ensure proper access to higher order nodes to access higher order services and facilities ▪ Ensure necessary basic services, infrastructure and social facilities. ▪ Planned settlement edges for expansion ▪ Environmental Management is critical

Plan 15.1: Nodes



15.6.1 Primary Urban Development Nodes

Structuring Element: Urban Areas	**Structuring Informants: Hierarchy of Nodes** **Urban (formal & informal) and Densifying Rural (Reception / Influx Areas) - part of the functional urban environment**
<u>Cacadu Town (former Lady Frere) - (District Level Sub-District Node)</u> Cacadu Town is deemed to be just below Queenstown in terms of strategic developmental importance. Investment in Cacadu Town should be prioritised as this town has the potential to play a more effective role in providing not only goods and services to its rural hinterland but also to play a developmental (stimulus) role in the broader area. ❑ Need to engage with key role-players in Business Community to address the improvement of the Business Centre ❑ Need to ensure appropriate Zoning Scheme Regulations (By-Laws) ❑ Provision of suitable forms of housing to attract residents ❑ Rates Policy to address "land bankers" – to free up vacant land ❑ Land Use Intensification Cacadu Town upgrade: ❑ Business Area regeneration ❑ Prioritise infrastructure upgrades (water services) ❑ Improved access/road upgrading between key urban service centres and surrounding rural settlements Ensure that Environmental Management of Town is adhered to, this includes: ❑ No development within the 100-year flood line ❑ No development on slopes greater than 1:5 ❑ Effective solid waste management	
Land Use Guidelines for urban areas ❑ Ensure that urban spaces are managed to protect the health, amenity and general well-being of residents. ❑ Promote densification of urban areas, within existing urban development fabric, demarcated by way of an *urban edge* that guides future settlement expansion. ❑ Small erf sizes (300 m2 or less), depending on nature of development and setting ❑ Formal township layout ❑ Freehold title, rent-to-buy or leasehold on individual household basis ❑ Location of urban settlement to integrate with existing water and sanitation networks and infrastructure of appropriate levels. ❑ Level of Service (LOS) linked to levels of affordability and sustainability. RDP LOS should be minimum standard of appropriate levels. ❑ Protect adjacent areas of biodiversity and other sensitive areas ❑ Land use categories should be structured along a range of levels of intensity and mix (as opposed to strictly use-category based) to encourage mixed use development, with good access to higher order goods and services. ❑ Urban settlement to integrate with main commuter routes and tar road access. ❑ May have access to municipal commonage (if available)	
Roles and Responsibilities Responsibility primarily rests with the local municipality and the district municipality. Resident associations, ratepayers, ward committees, community forums, and council structures are important support structures and playing an important community representative role that guides and informs land use/development in the area. Poverty needs to be understood at the community level to ensure appropriate development and prioritization of funding.	

Structuring Element: Urban Areas

Structuring Informants: Hierarchy of Nodes

Urban (formal and informal)

Dordrecht (District Level-Local Centres)

Serves as a Secondary Municipal Administrative Service Centre and Sub Regional Centre for Provincial and National Government Departments & SAPS

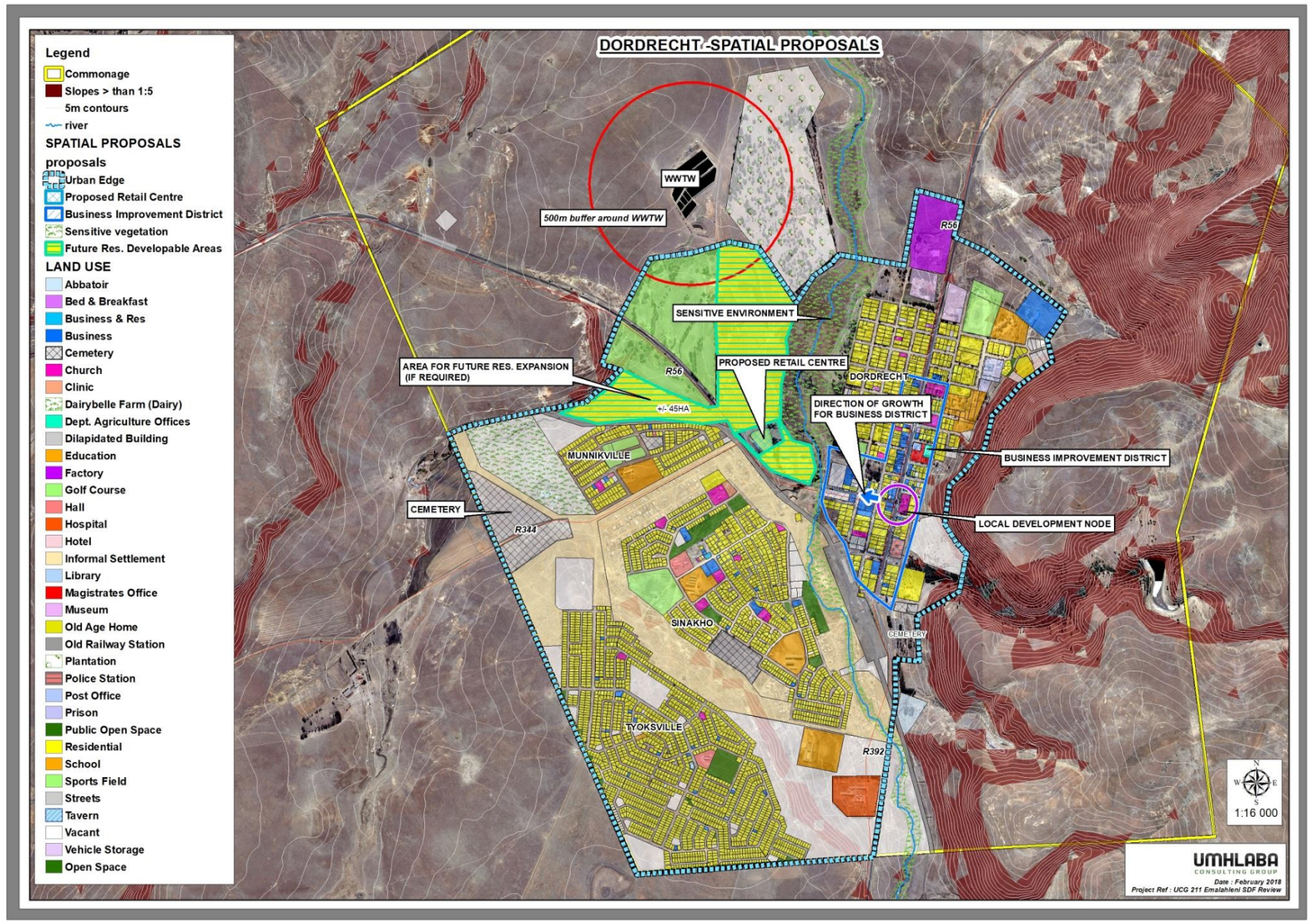
- Need to engage with key role-players in Business Community to address the improvement of the Business Centre
- Need to ensure appropriate Zoning Scheme Regulations (By-Laws)
- Infill and densification
- Dordrecht upgrade: Prioritise infrastructure upgrades that are key to both poverty alleviation (basic needs) and that facilitate strategic economic investment (mining, agro-industry, tourism, service/retail sector)
- Improved access/road upgrading between key urban service centres and surrounding rural settlements
- Protection of sensitive, vulnerable, highly dynamic or stressed ecosystems

Land Use Guidelines

- Ensure that urban spaces are managed to protect the health, amenity and general well-being of residents.
- Promote densification of urban areas, within existing urban development fabric, demarcated by way of an *urban edge* that guides future settlement expansion.
- Small erf sizes (300 m2 or less), depending on nature of development and setting
- Formal township layout
- Freehold title, rent-to-buy or leasehold on individual household basis
- Location of urban settlement to integrate with existing water and sanitation networks and infrastructure of appropriate levels.
- Level of Service (LOS) linked to levels of affordability and sustainability. RDP LOS should be minimum standard
- of appropriate levels.
- Land use categories should be structured along a range of levels of intensity and mix (as opposed to strictly use-category based) to encourage mixed use development, with good access to higher order goods and services.
- Urban settlement to integrate with main commuter routes and tar road access
- A linked open space system should be embedded in future revisions of the applicable Municipal SDF in order to ensure the operation of ecological corridors as development in the area intensifies.
- May have access to municipal commonage (if available)

Roles and Responsibilities

Responsibility primarily rests with the local municipality and the district municipality. Resident associations, ratepayers, ward committees, community forums, and council structures are important support structures and playing an important community representative role that guides and informs land use/development in the area. Poverty needs to be understood at the community level to ensure appropriate development and prioritization of funding.



Structuring Element: Urban Areas

Structuring Informants: Hierarchy of Nodes

Urban (formal and informal)

Indwe

Need to engage with key role-players in Business Community to:

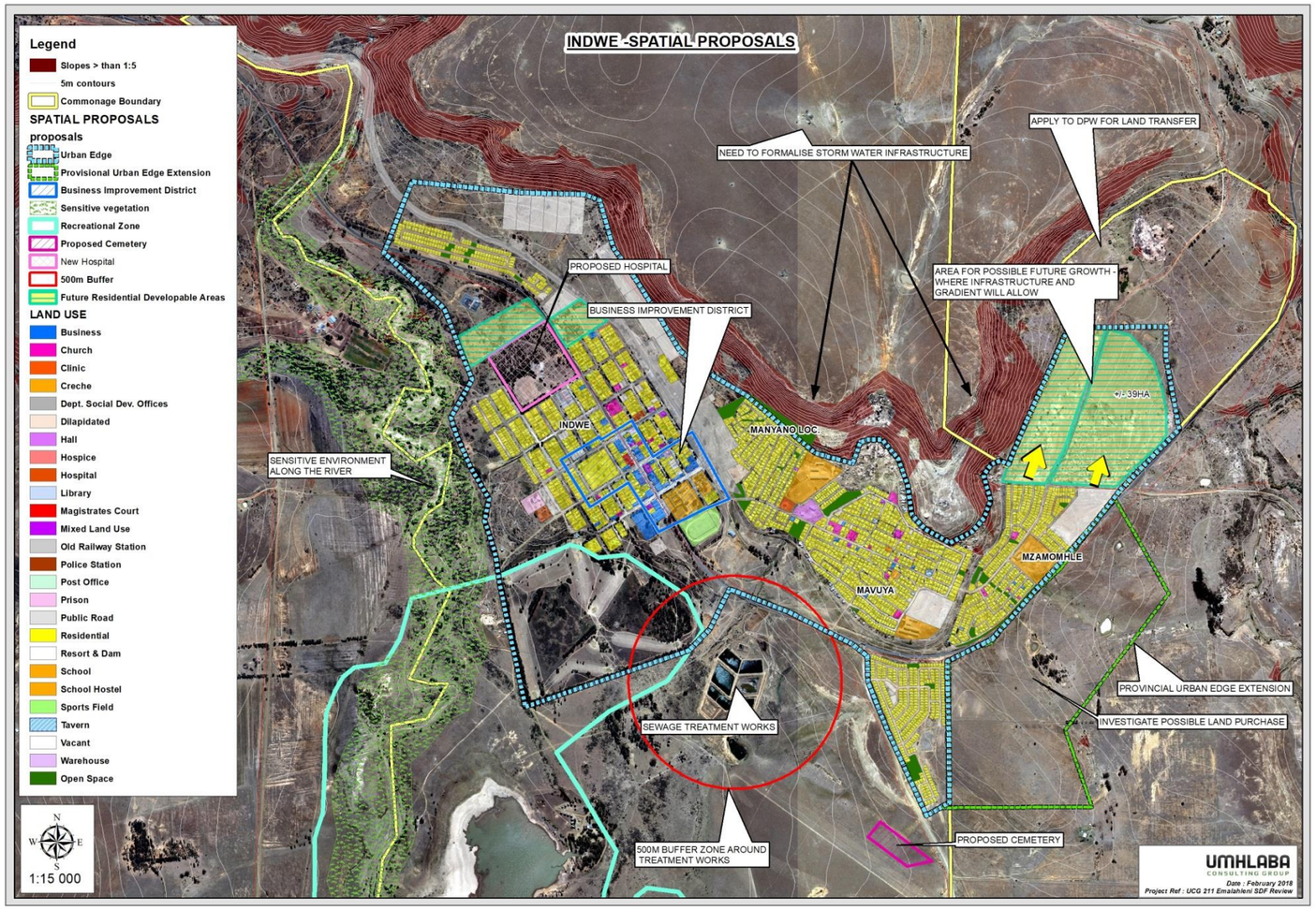
- Address the improvement of the Business Centre
- Need to ensure appropriate Zoning Scheme Regulations (By-Laws)
- Infill and densification
- Indwe upgrade: Prioritise infrastructure upgrades that are key to both poverty alleviation (basic needs) and that facilitate strategic economic investment (mining industry, service/retail sector)
- Improved access/road upgrading between key urban service centres and surrounding rural settlements

Land Use Guidelines

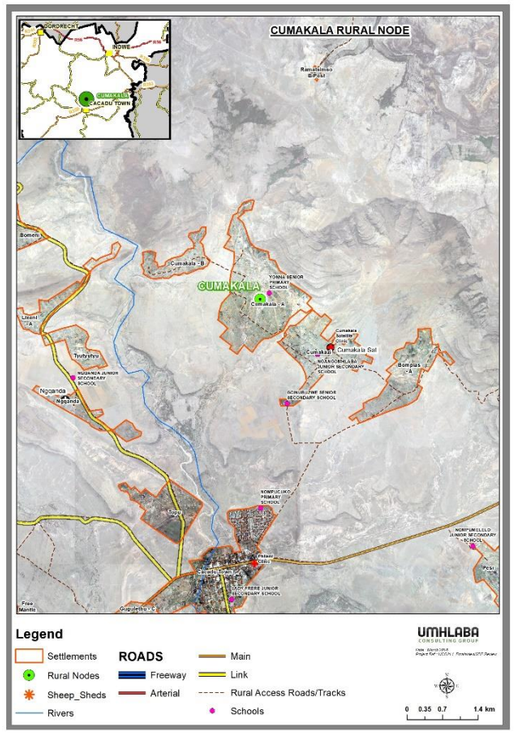
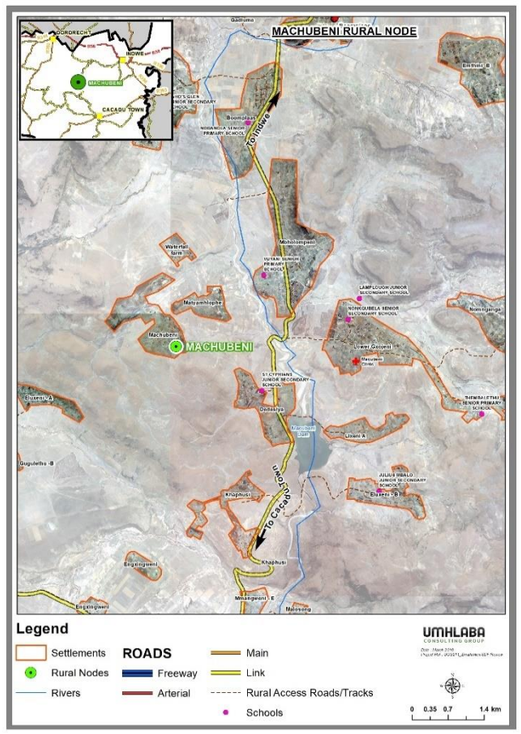
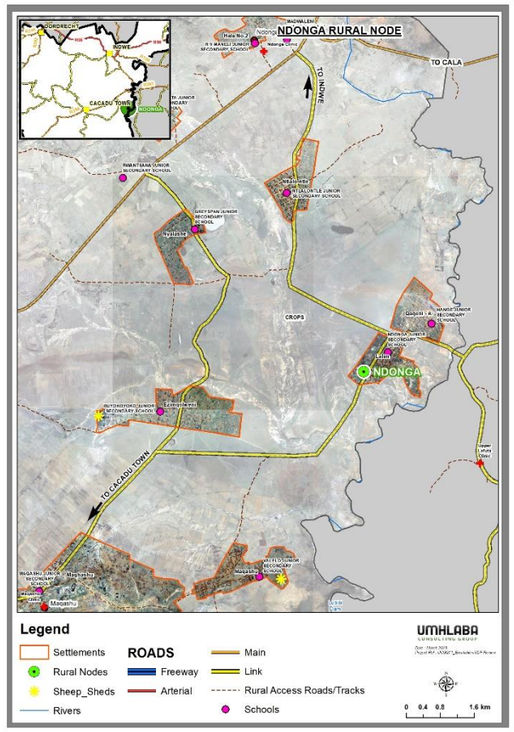
- Ensure that urban spaces are managed to protect the health, amenity and general well-being of residents.
- Promote densification of urban areas, within existing urban development fabric, demarcated by way of an *urban edge* that guides future settlement expansion.
- Small erf sizes (300 m2 or less), depending on nature of development and setting
- Formal township layout
- Freehold title, rent-to-buy or leasehold on individual household basis
- Location of urban settlement to integrate with existing water and sanitation networks and infrastructure of appropriate levels.
- Level of Service (LOS) linked to levels of affordability and sustainability. RDP LOS should be minimum standard
- Land use categories should be structured along a range of levels of intensity and mix (as opposed to strictly use-category based) to encourage mixed use development, with good access to higher order goods and services.
- Urban settlement to integrate with main commuter routes and tar road access
- May have access to municipal commonage (if available)

Roles and Responsibilities

Responsibility primarily rests with the local municipality and the district municipality. Resident associations, ratepayers, ward committees, community forums, and council structures are important support structures and playing an important community representative role that guides and informs land use/development in the area. Poverty needs to be understood at the community level to ensure appropriate development and prioritization of funding.



15.6.2 Rural Development Nodes

Structuring Element: Rural Service Nodes	**Structuring Informants:** **Rural Settlements that fulfil a service centre role to surrounding villages, due to:** ❑ **Location of services and commercial outlets/local industry: Health services, schools** ❑ **Agricultural infrastructure (shearing sheds, irrigation schemes) supporting local economic activity** ❑ **Availability of Infrastructure and housing provision** ❑ **Location at intersection of main routes that provide ease of access and enhances spatial integration between nodes of varying levels of hierarchy.**
Vaalbanks, Xonxa, Ndonga, Machubeni, Cumakala ❑ Identify rural service centres that are strategically located to be extended and planned to accommodate higher levels of social facilities and infrastructure (including commercial enterprises) ❑ Priorities infrastructure investment for basic need provision and to enable investment and growth of potential economic activity in areas (agro-industry, mining, irrigation). ❑ Integration and improved accessibility to higher order service centres and improved access between clustered rural settlements around rural service nodes. ❑ Manage settlement expansion in order to: → Prevent unmanaged settlement encroachment along regional transport routes (national /district roads) → Promote densification and integrated settlement development without limiting rural livelihoods practice (subsistence/small scale agriculture) → Prioritise infrastructure delivery to support settlement growth in an integrated manner. ❑ Priority to be given to environmental protection and good land use practise ❑ Appropriate land administration arrangements and tenure form for nodal areas ❑ Focus on Local Planning Processes to clarify land use rights and to formalise layout of relevant nodal areas.	  

Land Use Guidelines for rural areas

❑ Need a clear land use management system to improve the sustainable provision of infrastructure and services to nodal areas that protects the environment, ensures managed settlement growth so as to enhance the quality of life of inhabitants.
❑ Low-density rural settlement, vegetable gardens, grazing, crops, woodlots, medicinal plants, thatching grass, sand winning, stone quarrying, natural areas, various social and recreational facilities, private burial areas, community cemeteries, spaza shops, taverns and other small-scale commercial activities.
❑ These areas have to be included and managed as part of the Municipal Zoning Scheme.
❑ Where there is cadastral certainty, zones should be applied to each parcel of land. Where there is a level of cadastral uncertainty the use of guidelines or policy plans should be used to guide development.
❑ Land allocation undertaken by Traditional leaders needs to be considered in preparing land management guidelines.
❑ Service nodal areas to be demarcated by way of a Nodal Edge with appropriate levels of infrastructure and in consultation with inhabitants/traditional leadership
❑ Land use categories should be informed by an appropriate mix of existing and anticipated land uses

Roles and Responsibilities

Due to demand for infrastructure and services responsibility primarily rests with the local municipality, the district municipality and relevant sector departments.
Poverty needs to be understood at the community level to ensure appropriate development and prioritization of funding.
Priorities for these nodes should be to engage in Local Planning processes to work together with the communities and their representatives (including Traditional Authorities) to develop agreed upon spatial plans that set out the spatial arrangement of land rights and land uses in the nodal areas.
A co-operative governance agreement (Protocol) on the ongoing management of land use must be negotiated between the Traditional Leaders and the Local Municipalities.
Relevant local community forums and ward committees should play an integral role to guide and inform land use/development in the area.

Rural Nodes: Vaalbank and Xonxa

Structuring Elements:

- **Rural Service Nodes**
- **Sub Local Business Node**
- **Sub Local Mixed development node**
- **Development Corridor**

Structuring Informants:

Rural Settlements that fulfil a service centre role to surrounding villages, due to:

- **Location of services and commercial outlets/local industry: Health services, schools**
- **Agricultural infrastructure (shearing sheds, irrigation schemes) supporting local economic activity**
- **Availability of Infrastructure and housing provision**
- **Location at intersection of main routes that provide ease of access and enhances spatial integration between nodes of varying levels of hierarchy.**

Vaalbank Local Spatial Development Framework Proposals (ELM IDP 2017 – 2022)

Rural Node: Lower Vaalbank

- A proposed Rural Service Node allowing for a travel distance of 5km/1-hour travel by foot to access its public facilities.
- Areas where medium order community facilities are provided
- Future rural service centres need to be located in close proximity to public transport routes to ensure maximum accessibility to facilities
- Local planning is needed to maximize use of resources
- Local land use schemes to be negotiated

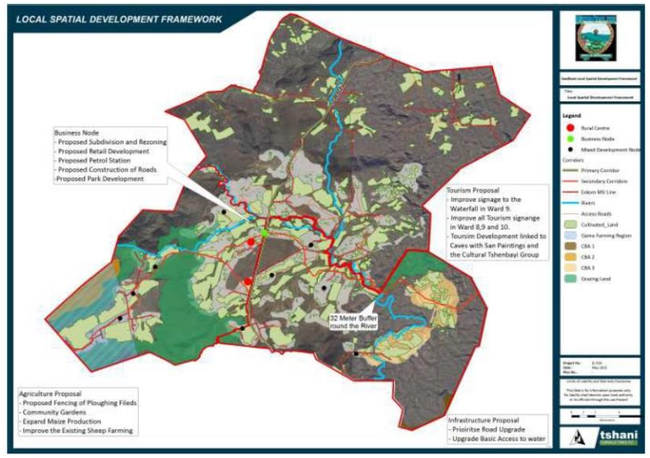
Business Node: ***Vaalbank Intersection Business Node (on R392)***

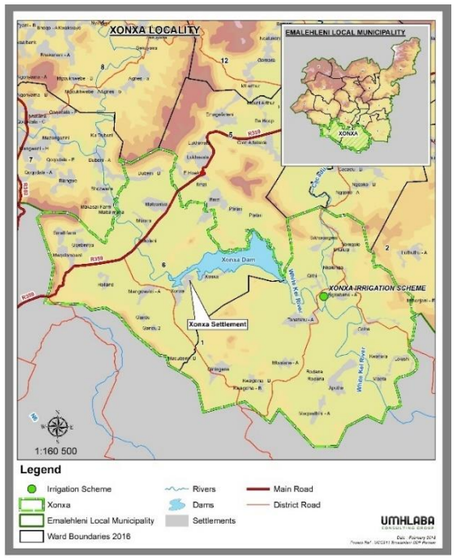
- Proposed Business Hub: Existing Business expansion; Proposed Mixed Uses, a Park and Open Space Development, upgrade and provision of internal roads
- Local land use Schemes to be negotiated.

Mixed Development Nodes: *Mngungu • Qwugqwarhu • Bhogo-A • Mgqukhwebe-A • Gcina-G • Swartwater • Dum-Dum • Sidwadweni*

- A proposed Mixed Development Node, allowing for a travel distance of 5km/1-hour travel by foot to access its public facilities.

Development Corridor: *The R392 from Queenstown to Dordrecht -proposed as the main Transport Corridor*





Xonxa Local Spatial Development Framework Plan (ELM IDP 2017-2022)

Chris Hani District Municipality has identified Xonxa Settlement and Xonxa Dam, located in Ward 1 and Ward 6 for local spatial development planning.

Xonxa LSDF: Key Development Strategies

- Promote Agricultural Development along the dam and within the settlement
- Promote Tourism development. Lodge development at the dam heritage site development
- Promote Coal mining for job creation
- Introduce public transport routes and corridors.

Strengths of the area:

- Existing rivers and dams provide water for the irrigation scheme in the area
- Agriculture potential for maize production and expansion of horticultural activities
- Irrigation scheme for 5 500 hectares at the Xonxa and Lubisi dams.
- Potential Eco and Heritage Tourism in the area (Farm-stay tourism accommodation)
- Coal Mining potential in the area

Key Access Routes:

The Municipal Road MR 00661 and the District Road DR08566 traverse the study area.

Roles and Responsibilities: Due to demand for infrastructure and services responsibility primarily rests with the local municipality, the district municipality and relevant sector departments.

Poverty needs to be understood at the community level to ensure appropriate development and prioritization of funding. Priorities for these nodes should be to engage in Local Planning processes to work together with the communities and their representatives (including Traditional Authorities) to develop agreed upon spatial plans that set out the spatial arrangement of land rights and land uses in the nodal areas. A co-operative governance agreement (Protocol) on the ongoing management of land use must be negotiated between the Traditional Leaders and the Local Municipalities. Relevant local community forums and ward committees should play an integral role to guide and inform land use/development in the area.

15.7 DEVELOPMENT ROUTES AND CORRIDOR

Structuring Element: Development corridors: Roads of significance at Municipal and Local Level, that:

- Facilitate movement of people and goods to and from an area
- Link places in the Municipal area to other places of significance (i.e. markets, places of work or social /economic opportunity)
- Create a focus for activity (e.g. tourism, commercial farming, agro-industry)

Structuring Informants

- National and Provincial Roads or Routes (Primary and Secondary)
- District Roads
- Local Roads
- Internal Access Roads

Statement of Intent

Clear categorisation in line with the primary function of each road category. The function of each category needs to be optimised / supported / secured by appropriate spatial design and management criteria, including:

- Access control (spacing and configuration of intersections, direct access restrictions)
- Set-back and building lines along routes
- Clear provision for pedestrian / non-motorised control
- Critical for a functional road transport system or network - higher order networks to be supported by lower order secondary networks and access roads – to avoid conflict in functions and resulting safety implications, currently often the cause of serious accidents.
- To afford good levels of access to all residents and visitors in the district

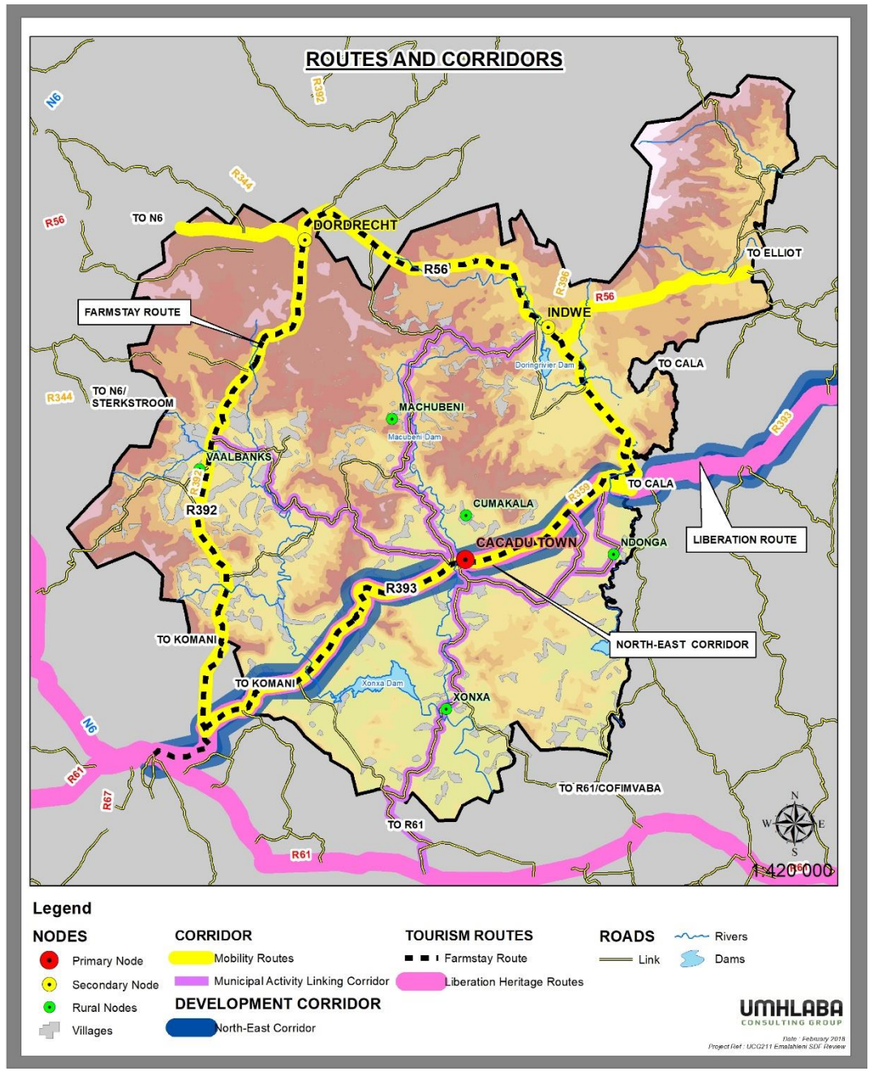
Spatial Structuring and Outcome Management

- Appropriate alignment and design criteria are informed by the road status.
- Topography and existing built environment will largely determine optimal routing of road.

Management of space around higher order roads and mobility routes need to focus on the following:

- Restricting direct access
- Introduction of setback lines
- Restricting pedestrian activity
- Appropriate public transport collection and transfer points
- Safe intersections
  - Sight distances
  - Limiting number of intersections/spacing
  - Intersection alignments
- Adequate hierarchy of roads to ensure functioning road network / avoid undesirable or conflicting use.
- Protect sensitive, vulnerable and highly dynamic eco-systems.
- Discourage the use of informal tracks, promote desirable routes
- Full EIA required for all new roads and upgrading of roads.

Mobility Routes	R393 (Queenstown – Cacadu Town – Cala) R392 (Dordrecht – Queenstown) R56 (N6 – Dordrecht – Indwe –Elliot)	*These routes carry passing traffic and provide access between local areas in Emalahleni and centres further a field.* ***Spatial Planning Priority is to manage settlement development along the Primary and Secondary Movement corridors to mitigate impacts of settlement on the road***
Municipal Activity / Link Corridor	Vaal Banks –Cacadu Town Cacadu Town –Xonxa – R61 Cacadu Town – Machubeni –Indwe Cacadu Town - Zingqolweni – Ndonga-R393	*Linking areas of development potential to Movement Corridors and Urban centres*
Development Corridor	North -East Corridor	*Corridor of district and municipal-level economic importance*
Special Routes (Tourism)	Farm-stay Route (Queenstown – Dordrecht- Indwe – Cacadu Town – Queenstown) Liberation Route (R393)	*Routes of District and Regional Economic Importance.* *Upgrade and Improve accessibility to promote tourism potential / initiatives in the area*



ROAD RESERVES AND BUILDING LINES			
		Recommended	
Road Level	**Road Type**	**Road Reserve**	**Building Line**
National	SANRAL roads**	50 m	10 m – residential 20 m – business, industrial
Provincial	Trunk road	30 m*	5 m***
	Main road	25 m*	5 m***
	District road	20 m*	5 m***
Municipal	Bus routes – arterial (four lanes with median island)	32 m	5 m
	Bus route – collector (two lanes)	20 m	5 m
	Taxi routes	16 m	5 m

Land Use Management Guidelines

Notes
** As per clause 6(2) of the E.C. Road Act of 2003.*
***In terms of Act 7 of 1998 of the National Roads Act, the building restriction area is generally defined in rural areas as 60 m from the reserve on each side of the road as well as within 500 m radius of an intersection outside an approved or recognised township or urban area.*
****Act 21 of 1940 and Section 17 of the Roads Ordinance No. 19 of 1976 has a distance of 95 m of the centre line as a building restriction in rural areas. (Source: BCMM Traffic Design Guidelines)*

Roles and Responsibilities: Responsibility for management and maintenance of movement routes are determined by the road status, in line with the following:

- National Roads (including bypass alignments, upgrades and proposed new N2 alignment) – SANRAL and District Roads– DOT– Eastern Cape
- Local Access roads and internal urban roads – Municipalities

Management of land use and development along registered roads remain the responsibility of Municipalities, in consultation with the relevant roads authority in terms of relevant road legislation. It is however critical for Roads Authorities and municipalities to engage with Traditional Councils (and relevant local community structures under traditional councils) to create awareness of the spatial structuring elements and reach agreement on management arrangements for areas along transport routes.

15.8 SETTLEMENT HIERARCHY: PERI-URBAN/RURAL SETTLEMENT TYPOLOGY

STRUCTURING ELEMENT
Settlements:
- **Structured low-density peri-urban/rural settlements**
- **Rural Settlement: Structured low density**
- **Small Scale agricultural settlement/ emerging farming area.**

STRUCTURING INFORMANTS - HIERARCHY AND FUNCTION OF PERI URBAN/RURAL SETTLEMENTS
- Low Density Peri- urban Settlement
- Rural settlement
  - Structured
  - Low density
- Small scale agricultural settlement/ emerging farming areas

Statement of intent

- Defining settlement edges is a fundamental step in distinguishing between agricultural and natural rural landscapes from settlement landscapes.
- The management emphases inside and outside the settlement edges differ.
- The intention would be to support multiple livelihood options as they relate to food security, sustainable livelihoods, income generation and access to goods and services and includes families potentially having employment in nearby enterprises or in close by urban employment, by participating in LED projects/enterprises on the commonage, and through access to land for small scale gardening, and or commonage land for grazing.
- Multiple land uses include low-density residential settlement, vegetable gardens, grazing, crops, woodlots, medicinal plants, thatching grass, sand mining, stone quarrying, natural areas, various social and recreational facilities, private burial areas, community cemeteries, spaza shops, taverns and other small-scale commercial activities.

Structured low-density peri-urban/rural settlement
- In recognition of cultural tradition and socio-economic circumstances such settlements should allow for traditional practices and incremental settlement development.
- This settlement type may allow space for on-site gardens and access to grazing & arable lands (where possible) on commonage.
- Commonage planning needs to take account of LED development opportunity. Commonage ideally to be managed by a commonage management committee under formal guidance (e.g. Dept of Agriculture or Municipality)
- Level of Service (LOS) to be lower than full urban LOS, depending on proximity to existing networks and is subject to how the community prioritises subsidy expenditure.
- In new settlements top structure support to be provided but can be provided in follow-up phase of development.
- Provision of neighbourhood level services and facilities within the community.
- This model is seen to offer the potential to densify and develop into the urban model over time, should communities so desire.
- If densification occurs it must be done within parameters of improvements in LOS and access, as well as a sustainable livelihoods base and impact on erf size
- In existing settlements top structure support is optional, depending on financial availability and development priorities
- Settlement design options should be available for selection by community. In appropriate circumstances, can combine household/residential sites with arable allotments (i.e. larger site sizes). Township layout is one alternative.

Land Use Management Guidelines
- These areas have to be included and managed as part of the Municipal Land Use Scheme.
- New residential sites to have site sizes in the range of 500-1,000m², depending on local conditions and provisions of local planning processes (e.g. SDFs).
- Where there is cadastral certainty, zones should be applied to each parcel of land.
- Level of cadastral uncertainty necessitates guidelines or policy plans to guide development and must take into account existing land allocation procedures by Traditional Leaders and community members must have a say in the settlement layout planning.
- Access to commonage must be capped according to defined parameters. (i.e. the objective of minimum household subsistence levels taking account the community's economic position – this practically means that communities with better alternative economic opportunities may have less commonage while more destitute communities may have more commonage)
- A co-operative governance agreement (Protocol) on the ongoing management of land use must be negotiated between the Traditional Leaders and the Local Municipalities and the communities.

15.8.2. Structured low density rural settlement and Small Scale Agricultural Settlement (Small Holder)

STRUCTURING ELEMENT

Settlements:

- **Structured low-density peri-urban/rural settlements**
- **Rural Settlement: Structured low density**
- **Small Scale agricultural settlement/ emerging farming area.**

STRUCTURING INFORMANTS - HIERARCHY AND FUNCTION OF PERI URBAN/RURAL SETTLEMENTS

- Low Density Peri- urban Settlement
- Rural settlement
  - Structured
  - Low density
- Small scale agricultural settlement/ emerging farming areas

Statement of intent

- Defining settlement edges is a fundamental step in distinguishing between agricultural and natural rural landscapes from settlement landscapes.
- The management emphases inside and outside the settlement edges differ.
- Key issues relate to food security, sustainable livelihoods and income generation and access to goods and services.
- Multiple land uses include low-density rural settlement, vegetable gardens, grazing, crops, woodlots, medicinal plants, thatching grass, sand mining, stone quarrying, natural areas, various social and recreational facilities, private burial areas, community cemeteries, spaza shops, taverns and other small-scale commercial activities.

Rural Settlement (Structured/Clustered and Low-density sprawling)

- This has to provide for the use of land or buildings for low density residential and ancillary use development with a rural character, under the management of a Traditional Authority.
- Development will generally be, but not be limited to being outside the Urban Edge.
- In recognition of cultural tradition and socio-economic circumstances such settlements should allow for traditional practices and incremental settlement development.

Small Scale Agricultural Settlement / Emerging farming areas (small-holder)

- This aims to secure agricultural land and sustain a valuable economic resource that is being managed by small-holder farmers.
- Protect the agricultural potential from residential settlement densification and other developments that will impact on the productive capacity and livelihood of occupants.
- Implement appropriate agricultural land use management and support
- These areas can make a positive contribution to the economy of the region and economic prospects of residents.
- Compatible uses should be encouraged, provided these do not detract from agriculture as the main productive activity.

Land Use Management Guidelines

- These areas have to be included and managed as part of the Municipal Land Use Scheme.
- Where there is cadastral certainty, zones should be applied to each parcel of land.
- Where there is a level of cadastral uncertainty the use of guidelines or policy plans should be used to guide development.
- Land allocation procedures managed by the Traditional Leaders must be taken into account in preparing the guidelines and policies and community members must have a say in the settlement layout planning.
- A co-operative governance agreement (Protocol) on the ongoing management of land use must be negotiated between the Traditional Leaders and the Local Municipalities and the communities.

STRUCTURED RURAL SETTLEMENT: Zingqolweni

SMALL SCALE AGRICULTURAL SETTLEMENT (SMALL HOLDER): Guba Hoek Area

15.8.3 Structured/ Clustered Rural Settlement

RURAL SETTLEMENTS (Structured/Clustered and Low density):-

Spatial Structuring and Outcome Management

Management of space will focus on:

- Contain and Improve
- Limit Sprawl
- Improving settlement functioning (infrastructure, access to social services)
- Improving settlement structure and space (infill/densification and or controlled expansion)
- Improve Connectivity (Roads, Telecoms/ Internet)
- Protect and integrate internal natural resource elements (Water, Wetlands, Biodiversity, Steep Areas)
- Invest in Resource Development around settlements
- Land Administration systems to be put in place

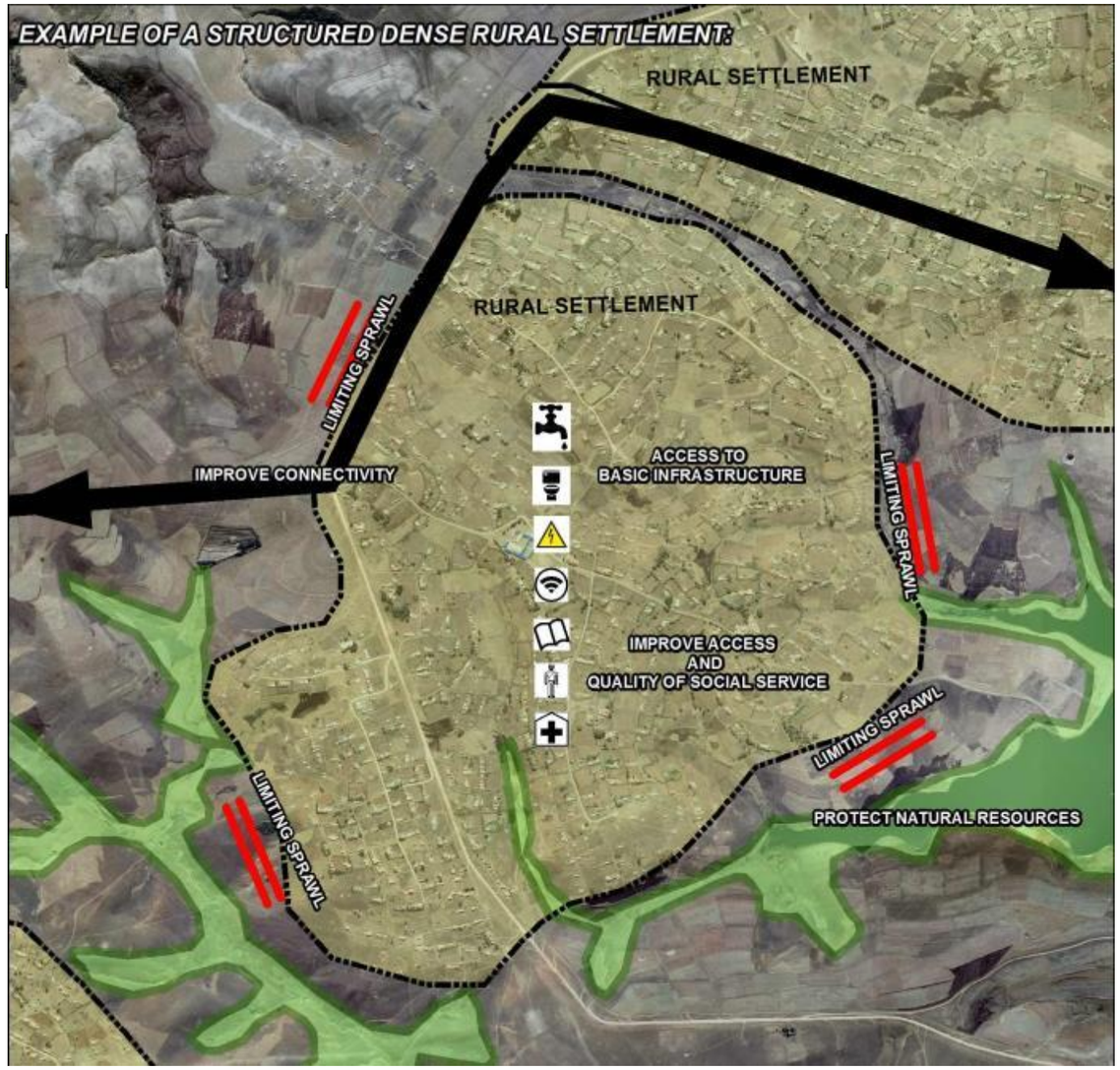
Land Use Guidelines:

Gradual introduction of land use management mechanisms to integrate with prevailing customary practices.

Recognition of land use practices and spaces based on cultural, traditional and socio-economic circumstances:

- Traditional dwelling structures (grouping of structures as opposed to "inter-leading")
- Integration and linkages to subsistence agricultural practices (cultivated spaces and livestock handling)
- Communal / open spaces linked to cultural practices (burial areas, social and gathering space)
- Create clear parameters where critical aspects need to be adhered to.
- Avoid unnecessary bureaucratic interference and restrictions and target management where required only. Instead, focus on influencing practices in a positive manner to ensure benefit of sustainability and wise land use practices.
- Introduce appropriate demarcation methods to align with land rights and land use differentiation.
- Inclusion of elements and appropriate definitions to enable future upgrade of tenure rights to take place (only when required), such as:
  - "land unit" / "erf",
  - "right holder" / "owner"
  - "use right" / "zoning"

Zonation and associated land use categories should be broad and provide for a wide range of activities associated with rural settlements, whilst only excluding uses that may negatively impact on the health and amenity of the local community.



Roles and Responsibilities:

It is envisaged that the measure of control by local community and Traditional Authority structures over land use management decisions should increase as we move from urban, to structured rural, to lower density rural to agricultural settlement. Here the role and responsibility of Traditional councils are critical for determining and achieving desired outcomes and could greatly assist municipalities if structured in terms of a suitable service level agreement.

15.8.4 Agricultural small-holder / subsistence farming area

AGRICULTURAL SMALL-HOLDER SUBSISTENCE

Spatial Structuring and Outcome Management

Management of space will focus on:

PRODUCTION FOCUSED SUPPORT PRIORITY

- Primarily on promoting productive capacity of such settlements as smallholder agricultural areas.
- To secure the high potential and productive agricultural land components.
- Agricultural infrastructure, technical support and extension services – consider locating resource hub (distribution of production input goods and collection points for produce) at an existing social infrastructure facility such as a school
- Access to markets (collection points, storage facilities) e.g. identify and invest in centralised resource hubs, logistics and transport
- Improved access to resource hubs
- Basic needs public investment
- Focus on restoring and maintaining integrity of agricultural areas.

Land Use Guidelines:

Focus on:

- Limiting residential settlement densification and other developments that will impact on the productive capacity and livelihood of its occupants.
- Settlement is recorded as existing uses in rural zones: e.g. POINTS in agricultural zones
- Natural boundaries are appropriate basis for zonation e.g. landscape character areas
- Appropriate agricultural land use and resource management principles to be integrated in LUMS
- Environmental Resource protection – forests, drainage features, wetlands, protected species
- Introduce compatible uses that do not detract from agriculture as the main productive activity.

Roles and Responsibilities:

It is envisaged that the measure of control by local community and Traditional Authority structures over land use management decisions should increase as we move from urban, to structured rural, to lower density rural to agricultural settlement. Here the role and responsibility of Traditional Councils are critical for determining and achieving desired outcomes and could greatly assist municipalities if structured in terms of a suitable service level agreement.

15.9 ENVIRONMENTAL CONSERVATION AREAS

STRUCTURING ELEMENT: Areas of environmental sensitivity, conservation priority

Provison is to be made for areas to be set aside as sensitive areas, where developmnet is discouraged due to specific characteristic, as follows:

- Critical Biodiversity Areas (CBAs)
- Topography: Slopes with a gradient greater than 1:5. This is due to the ecological impacts which may result e.g. soil erosion; slope failure etc.
- Vegetation: Afromontane Forest, Specific Grassland areas (e.g. Tsomo Grassland), areas containing Plants and Vegetation of Conservation Importance
- Wetland Areas: Currently there is no accepted priority ranking system for wetlands. Until such a system is developed, it is recommended that a 50 m buffer be set for all wetlands
- Heritage Sites: Rock Art Sites
- Other Areas: The habitat of endangers animals and birds
- Municipal Public Open Space.
- Rivers/ Water Source: Development within the 1:100 year flood line or within 100m of the high flood level. See Table below for recommended buffers for rivers.

Although associated compatible uses and activities may be considered, the primary intent is to maintain land in its natural state with the object of preserving the bio-physical characteristics of the land, including flora and fauna living on the land.

Spatial Structuring and Outcome Management

- Verification and refinement of indicative demarcation coverages of environmental sensitivity categories.
- Clear demarcation of all areas considered as environmentally sensitive (such as steep slopes, drainage features, estuaries or areas containing concentrations of conservation worthy vegetation) or conservation zones such as reserves or heritage sites.
- Identification and demarcation of ecological corridors (linking conservation areas) to be maintained.

Land Use Guidelines:

Critical Biodiversity Areas: the following land use objectives are recommended, as follows:

Terrestrial Biodiversity

CBA 1: Natural Landscapes: Maintain biodiversity in as natural state as possibility to ensure no biodiversity loss

CBA 2: Near Natural landscapes: Maintain biodiversity in near natural state with minimal loss of ecosystem integrity. No transformation of natural habitat should be permitted.

CBA 3: Functional landscapes: Manage for sustainable development, keeping natural habitat intact in wetlands (including wetland buffers) and riparian zones. Environmental authorisations should support ecosystem integrity.

CBA 4: Transformed Landscapes: Manage for sustainable development

Aquatic Biodiversity

CBA 1 and CBA 2: Formally protected water sources include a number of large water catchments (northern part of the study area), including dams, Xonxa, Lubisi, Machubeni and Doringriver Dam

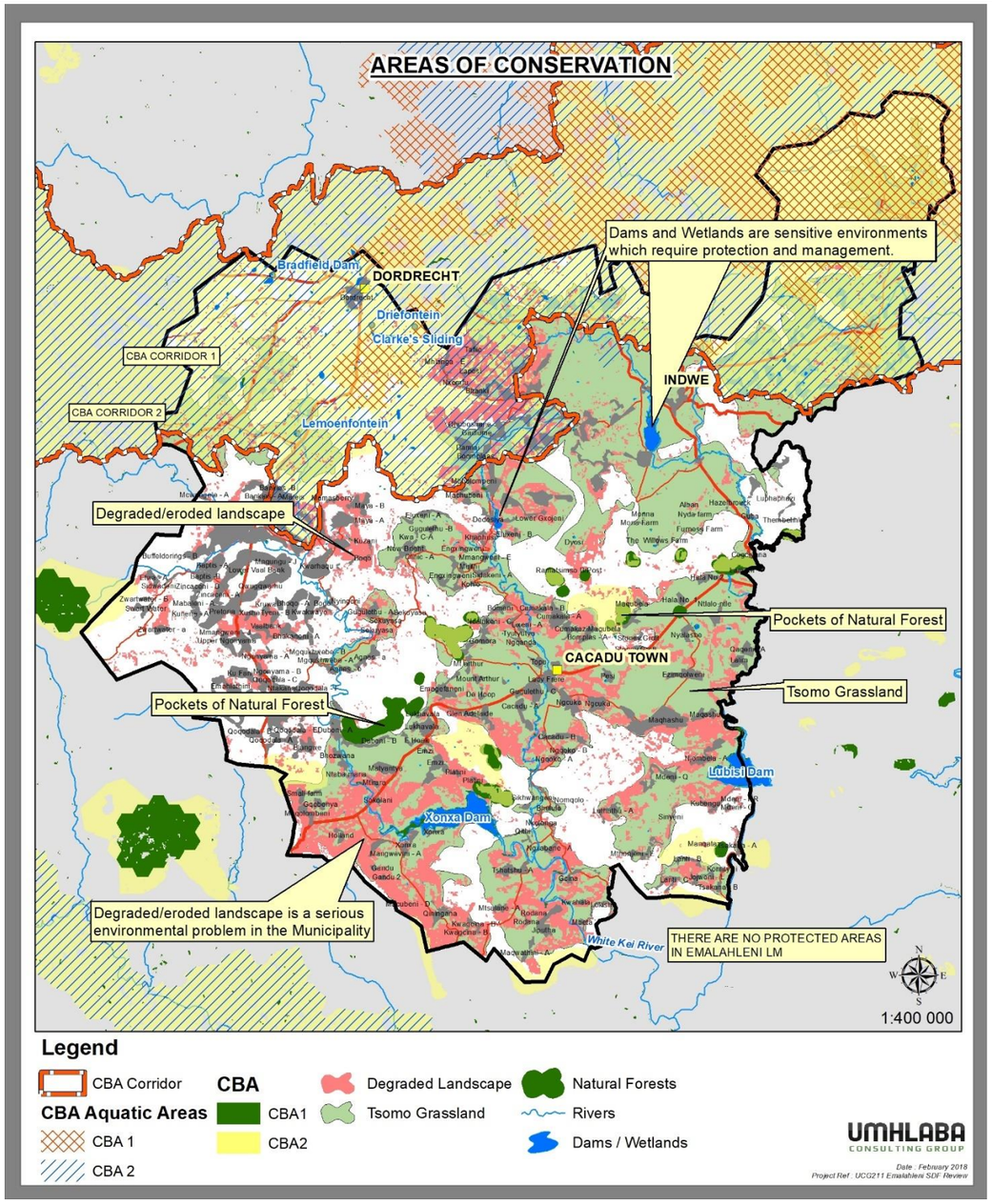
River Corridors: Preserve natural systems for attenuation, sediment and water flows.

- Municipal Schemes must make provision for a buffer area surrounding all rivers to be zoned as open space / environmental management area where no development is permitted. No development is permitted within 15 metres either side of a river (National Water Act No. 36 of 1998).
- Wherever possible, no property alienated either by lease or freehold title should have a river as a boundary. The boundary should be set back from the river by at least 15m and preferably further depending on the specific circumstances.
- Wetlands may not be dammed, drained or altered in any way without the prior permission of the relevant authorities.
- Roads should not be allowed to traverse a wetland. If no viable alternative route exists then it should be ensured that the road has minimal effect on the flow of water through the wetland.
- Permission for land development use should be considered on the basis of compatibility, whilst the primary intent should remain to be the maintenance of land in its natural state and preserving the bio-physical characteristics.

River criterion used	Buffer width (m)	Rationale
Mountain streams and upper foothills of all 1:500 000 rivers	50	These longitudinal zones generally have more confined riparian zones than lower foothills and lowland rivers and are generally less threatened by agricultural practices.
Lower foothills and lowland rivers of all 1:500 000 rivers	100	These longitudinal zones generally have less confined riparian zones than mountain streams and upper foothills and are generally more threatened by agricultural practices. These larger buffers are particularly important to lower the amount of crop-spray reaching the river.
All remaining 1:50 000 streams	32	Generally smaller upland streams corresponding to mountain streams and upper foothills, smaller than those designated in the 1:500 000 rivers layer. They are assigned the riparian buffer required under South African legislation

STRUCTURING INFORMANTS – ENVIRONMENTAL PRIORITY AREAS WHERE DEVELOPMENT IS DISCOURAGED

- Critical Biodiversity Areas (CBA1 & II)
- Wetlands, drainage lines and rivers
- Coastal Conservation priority areas and estuaries
- Steep slopes with a gradient great than 1:5



ENVIRONMENTAL CONSERVATION AREAS (CONTINUED)

Land Use Management Guidelines (Continued.../)

Land Use	Key Issue / Intent	Land Use Mangement Guidelinesl.
Floodlines Applies to all rivers in the study area	Protection of resident communities Protection of riverine eco-systems; Protection of communities from flooding risks.	No development below the level of the 50-year flood line. Any development below the level of the 100-year flood line only with input from qualified engineers. Any existing residents in these areas must be informed by the municipality that they are located in a 100-year flood plain.
Overly Steep Land and Unstable Land	Identification of land unsuitable for development purposes Protect sensitive, vulnerable and highly dynamic eco-systems. Preserve sense of Place	No development on land where the gradient is steeper than 1:5 or where land has been identified as potentially unstable, provided that specific exceptions may be identified by the municipality in the Scheme where development is subject to the positive outcome of a geotechnical investigation and the foundations and structure are designed and certified by a suitably qualified professional engineer.
No Development Zone	Protection and conservation of sensitive, vulnerable and highly dynamic eco-systems; Includes: ❑ Areas of special biological communities; ❑ Areas of great ecological sensitivity; ❑ Special breeding, nursery or migratory stop over areas; ❑ Areas of special paleontological interest; ❑ Areas of special archaeological interest; ❑ Areas of special historical, social or cultural value; ❑ Areas of special or traditional resource use or access; ❑ Areas of outstanding natural scenery. Protect sensitive, vulnerable and highly dynamic eco-systems. Protect sites of archaeological, paleontological, historical, cultural and social significance, special resource areas, and sites that represent the special features and symbols of the district. Boundaries of the No Development Zone as depicted in the SDF are to be used as a guideline and should be refined and verified through field survey.	**Land Use:** - No buildings, tented camps or huts. Only walking and horse-riding trails; - Includes the Natural Landscape as reflected in the EC Bio-Diversity Conservation Plan (BLMC 1); - No agricultural uses. **Level of Infrastructure and Services:** - No infrastructure or services; - ONLY management activities should be maintenance of the trails, collection of litter, control of alien vegetation at disturbed sites and protection/management of sites of cultural and historical significance; - Access along existing paths/trails only. No roads permitted. **Carrying Capacity of trails:** (Levy, 1984) - To be determined on the basis of Limits of Acceptable Change. Impacts must be monitored and visitor numbers limited through access controls where necessary. Consideration must be given to visitor experience as well as environmental impacts. - Subject to the recommendations of any SEA or EIA the following guidelines could be used: o Interpretive, educational nature trails: 2-4 km long, maximum 20 persons per km of trail per day. o Hiking trails: If >12 km long then overnight stops at Nature tourism development sites will be required. Maximum 2 persons per km of trail per day. o Horse riding trails: 3 horses per km of trail per day.
Cellular Network Masts	❑ Improvement in tele-communications network. ❑ Preserve sense of place.	All applications require an EIA and special consent of the Municipality. These must be carefully placed to avoid visual impacts on landscapes of significant symbolic, aesthetic, cultural or historic value and should blend in with the surroundings as far as possible.

Critical Biodiversity Areas (CBAs) are terrestrial and aquatic features in the landscape that are critical for conserving biodiversity and maintaing ecosystems functioning.

In Emalahleni LM the CBA's include the dams, rivers, wetlands and indigenous forests, identified expert areas and corridors. There are no protected areas in Emalahleni LM.

Protected Areas:	Terrestrial Critical Biodiversity Areas: Features used to define categories:	EC Aquatic Conservation: CBA 1 and CBA2
Protected area 1: Statutory protected areas. They include all national parks and provincial nature reserves **Protected area 2**: Non-statutory protected areas: municipal and private conservation areas.	**Terrestrial CBA 1:** ❑ Critically endangered vegetation types (ecosystems) identified though ECBCP the systematic conservation assessment ❑ Critically endangered vegetation types from STEP ❑ Critically endangered forest patches in terms of the National Forest Assessment ❑ Areas essential for meeting biodiversity targets for biodiversity features (SA vegetation types, expert mapped priority areas)	Formally protected water sources include a number of large water catchments, including the dams, Xonxa, Lubisi, Machubeni and Doringriver Dam
	Terrestrial CBA 2: ❑ Endangered vegetation types identified through the ECBCP systematic conservation assessment ❑ Endangered vegetations types from STEP ❑ Endangered forest patches in terms of the National Forest Assessment ❑ All expert-mapped areas less than 25 000ha in size ❑ All other forest clusters (includes 500m buffers) ❑ Ecological corridors identified by the ECBCP using an integrated corridor design for the whole Province ❑ Ecological corridors identified in other studies	

Roles and Responsibilities: **Similar to the management of areas with particular economic potential, areas of environmental sensitivity and biodiversity priority will require integration of multi-sector participation in the management of such areas. The cooperation between Sector Departments, Municipalities and Traditional Council Structures is critical for ensuring integration of spatial criteria and thresholds in prevailing and new land use management guidelines, achieving consensus and support for implementation / adherence towards the realisation of desired environmental management outcomes.**

15.10 STRATEGIC DEVELOPMENT AREAS

15.10.1 Introduction

Strategic Development Areas (SDAs) are geographical areas where, in order to achieve both the objectives of the Emalahleni Integrated Development Plan and the related objectives of the Spatial Development Framework, the Emalahleni Municipality would need to prioritise its development efforts and capital expenditure.

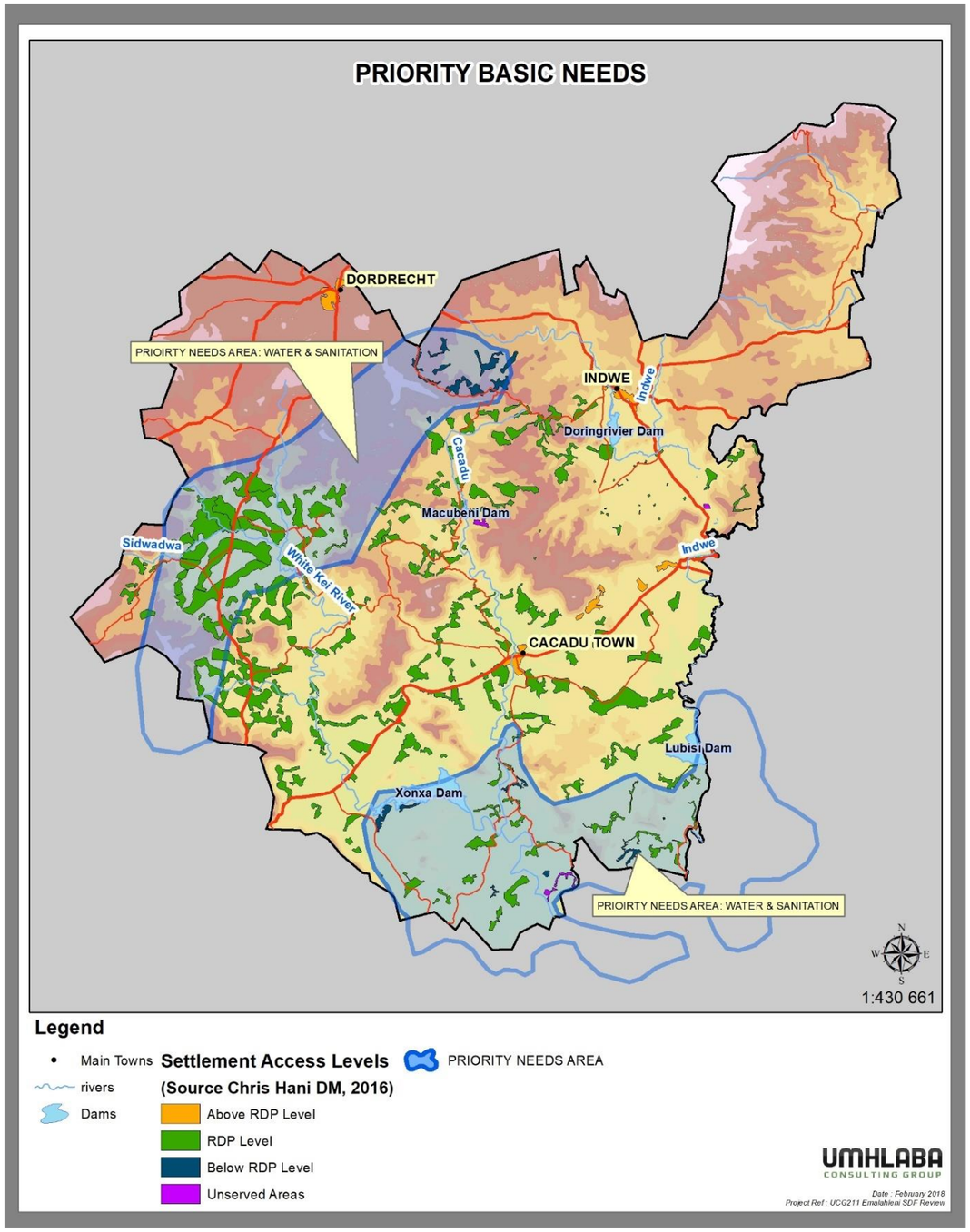
The Special Development Areas identified in Emalahleni Municipality are:

- AREAS OF PRIORITY BASIC NEEDS
- AREAS OF LAND REFORM AND SETTLEMENT
- AREAS OF MINING POTENTIAL
- AREAS OF AGRICULTURAL POTENTIAL

15.10.2 Areas of Prioirty Basic Needs (Water and Sanitation)

Structuring Element: Management for specific socio encomic outcomes	**Structuring Informants – basic access to infrastructure and services** ❑ Level of hardship ❑ Poverty ❑ Lowest Levels of access to basic services (social sercies and infrastructure)
Areas of greatest need are defined as those areas with the lowest per capita income levels and worst-off settlement areas (provision of water and sanitation infrastructure). These areas require priority basic needs intervention and strategic proposals to improve the level of well-being of these communities (poverty alleviation programs and basic infrastructure investment).	
Statement of intent To ensure basic human needs are met in terms of access to minimum levels of infrastructure, shelter, healthcare, education and safety, especially in those areas regarded as worst off. Although clear guidelines exist for urban environments, achieving appropriate levels of access to rural and often inaccessible localities will require innovative solutions. **Spatial Structuring and Outcome Management** Prioritisation of intervention areas to be based on lowest levels of economic wellbeing or access to economic opportunities, infrastructure and social services. This should again be refined and reviewed at each level of spatial planning (Municipal-wide, ward level and Local Precinct level), with particular reference to settlement typology, population density and accessibility. **Land Use Guidelines** Spatial guidelines are contained in government policy (minimum standards for human settlement development and delivery of social services). Spatial guidelines however require review based on the unique characteristics encountered in the study area (low density rural settlement, agricultural settlement and accessibility of areas). It is strongly recommended that consideration be given to new technology that can be applied to overcome physical and spatial challenges to service delivery. **Roles and Responsibilities:** Although the particular roles and responsibilities will depend on the identified need in each locality, the principle of formulating an integrated approach to addressing socio economic challenges, social service limitations or infrastructure backlogs is accepted as a key element of the SDF. It remains important for Sector Departments and the Municipality to engage with Traditional Councils (and relevant local community structures under traditional councils) to consider ways of improving the status quo in identified worst-off areas.	

Plan 15.2: Priority Basic Needs

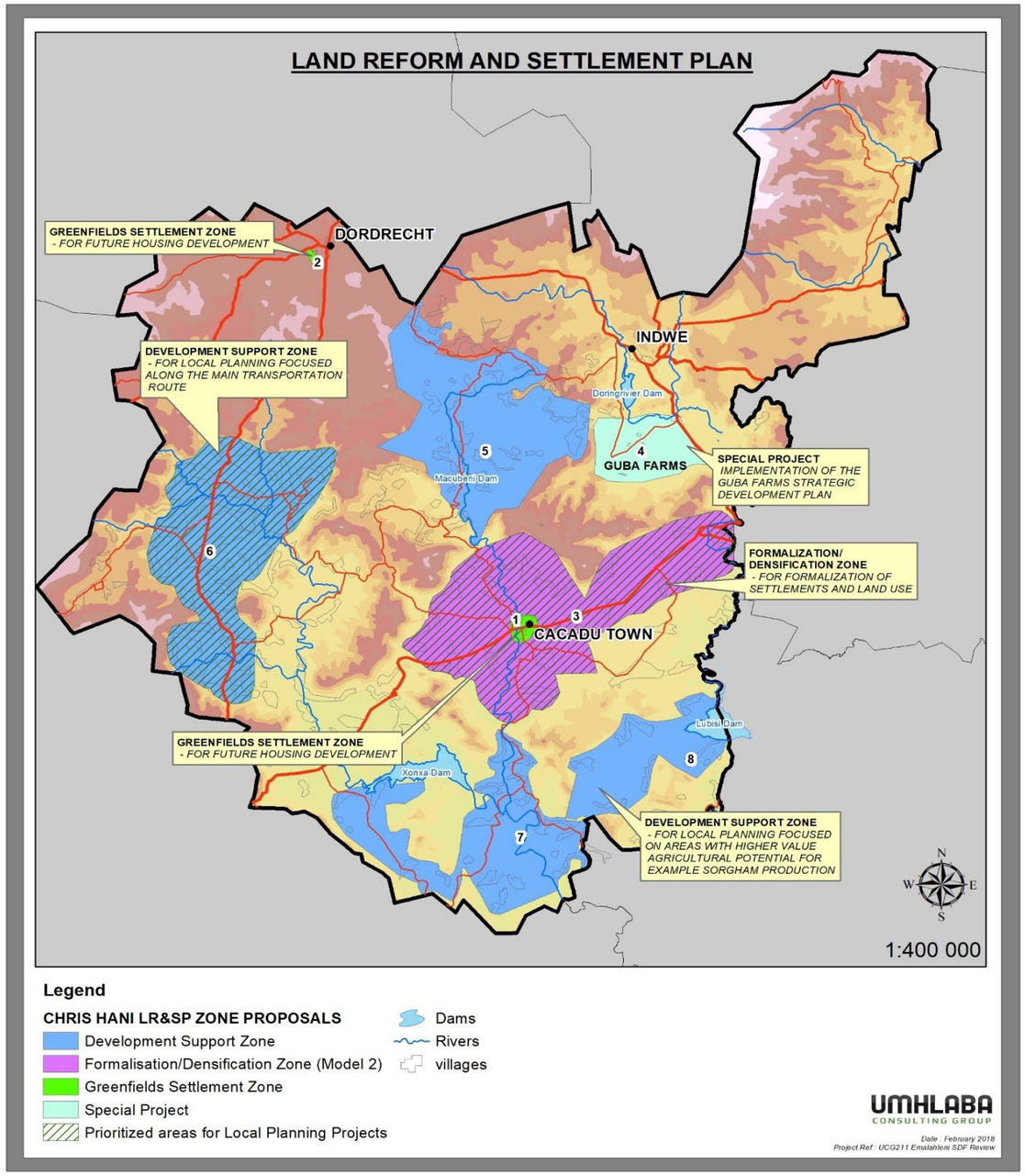


15.10.3 Land Reform And Settlement Proposals

Based on the LR and SP for Chris Hani, 2005, the CH SDF 2015, identifies eight (8) zones in Emalahleni which require certain specific land reform or settlement planning or both, as follows:

Zone 1. Cacadu Town Town: Formalisation Densification Zone (Model 2) and Greenfields Settlement Zone *Model 1 - Type of settlement has been proposed for the zone.*
The zone is located at Cacadu Town (administartive centre) and its immediate surrounds. It is central to the highest populations residing in surrounding rural settlements. The tarred road and increasing ease of mobility between Cacadu Town, Eliot and Queenstown shows potential for growth in level of importance as a business and residential centre. *Prioritize urban growth in Cacadu Town before other towns in Emalahleni LM* *Any future planning will require a Feasibility Study to establish water provisioning arrangments.*
Zone 2: Dordrecht and Immidiate surrounds: Greenfields Settlement Zone *It is envisaged that the zone would accommodate the anticipated expansion of the town.* ***A Model 1-type settlement is proposed.***
Due to ongoing housing development processes together with proposals to extend the Dordrecht commondage. This zone is identified to accommodated development pressures. *Concerns regarding sustainablity issues and experienced water shortages* *Commonage management plan is required and serves as a prerequisite for funding to purchase additional commonage land.*
Zone 3. Portions of Wards 3, 4, 5 and 12: Formalization/Densification Zone *The zone comprises of portions of Wards 3, 4, 5 and 12 in areas surrounding Cacadu Town town and extending along the Cacadu Town – Cala road.* ***A Model 2-type settlement is proposed for the zone.***
The zone has been identified because the settlements surrounding Cacadu Town town and which extend along the road to Cala are expanding. It encompasses some 25 rural settlements (approx. 61 000 inhabitants) which are coming under settlement pressure. *This area requires extended local planning processes* *Prioritise Pilot Land Management Systems in settlements closest to Cacadu Town Town.* *Need co-operative approach to land allocation, land use management and the recording of land rights issued in the subject area.* *Requires sound planning and negotiation skills and clear policy directions regading rates and taxes as they apply to formalised settlements*
Zone 4: Guba Farms: Development Support Zone *The zone is made up of the area around Guba State Farms and requires the implementation of the Guba Farms strategic Development Plan.*
Guba State Farms are presently being transferred to identified beneficiaries. This area has been subject to land reform processes and the transfer of state land to qualifying beneficiaries is the envisaged outcome. However, land transfer is impeded due to the reluctance of some beneficiaries to arrange payment of their contributions to enable transfers to take effect in terms of the LRAD programme. Consequently, the area is proposed for inclusion into a Development Support Zone to encourage the resolution of these issues . Following land transfer, it is suggested that a Consolidation Plan be developed with beneficiaries to develop successful agricultural enterprises in the area.
Zone 5: Development Support Zone: Macubeni Area *The zone is located around Macubeni area. and encompassing some 17 rural settlements, housing approximately 19,000 people .*
Since the area has been subject to a RULIV-funded Land Use planning process, it is considered appropriate for the area to receive RULIV support. Incorporating it into a Development Support Zone will achieve the objective. It is proposed that support be provided to the ongoing planning and development processes in the area, with particular attention being paid to: - *• Land rights clarification; • Titles adjustment processes to resolve overlapping land rights issues in the area.*
Zone 6: Development Support Zone: Portions of Wards 7, 8, 9 and 10. *The zone is located along the main road linking Queenstown to Dordrecht. It encompasses some 22 settlements, housing some 50 000 people. Due to its favourable location and easy accessiblity to Queenstown and Dordrecht, certain places within the zone are experiencing further demands for housing /settlement expansion. The area is also the locality of a sheep-farming project (ISRDP). Competition for land resources (land for settlement purposes versus land for farming) is evident in certain areas.* ***The identification of a Zone around this area is intended to advance processes to resolve this situation.***
Local planning processes need to be undertaken to formalise and stabilise settlements coming under settlement pressure. *Additional settlement development in this area should be limited. If this is not done, the area will de facto become an extended suburban area, with major challenges to the sustainable provision of services (CH SDF 2015).* *Facilitation and resolution of issues regarding competition for land resources is necessary in support of the ISRDP sheep farming initiative.*
Zone 7: Development Support Zone: Portions of Wards 1 and Ward 6, encompassing 14 settlements, housing some 38,000 people. *The zone requires support due to the current LED initiative in the area: The irrigation from the Xonxa River has provided the area with a greater potential for agriculture-related enterprises. Settlement extension is to be controlled or limited where possible.*
Targeted planning support is required to ensure appropriate land use arrangements (i.e. a clearassignment of land uses and differentiation between land suitable for settlement purposes and land to be reserved for economic uses). *The focus is on programming a local planning processes in selected settlement areas to formalise, plan and direct settlement and land usage. The aim is to unlock the development potential of the area and facilitate sustainable productive outcome.*
Zone 8: Development Support Zone: Lubisi Cluster - Ward 2, encompassing some 7 settlements, housing some 17,000 people. *The area requires support which will ensure appropriate land use arrangement that differentiates land suitable for settlement purposes from land that should be allocated to economic uses. The focus here is on programming a series of local planning processes in selected settlement areas to formalise, plan and direct settlement and land use intiaitives.*
The aim is to unlock the development potential of the area and to facilitate sustainmable productive outcomes. Among the key proposals for this area is the encouragement of agriculture-related activities including possible fish farming in the Lubisi Dam. Settlement extension should be discouraged. An in-situ densification approach should be adopted.

Plan 15.3: Land Reform and Settlement Plan



15.10.4 Mining and Renewable Energy Generation Potential

STRUCTURING ELEMENT

Areas of particular economic potential – Coal Mining, Sand Mining, Clay Mining, Wind Energy Farming

STRUCTURING INFORMANTS

High potential mining: coal, sand, clay brick making

Renewable Energy Projects: Indwe

Transport / Rail Routes

Statement of intent

- To secure and protect areas considered as valuable and high potential economic resource areas (with particular characteristics, natural potential or infrastructure capacity) from developments that will render the land less suitable for its optimal development. Through appropriate resource and land use management and investment, such areas need to be enabled to reach optimal potential.
- Complementary activities can assist in ensuring the viability of enterprises, and to this end, value addition and compatible uses should be encouraged, provided these do not detract from the core productive / development potential or function of such area.
- Spatial Structuring and Outcome Management
- Recognition, clear demarcation and protection of areas with high potential for economic development (in line with main economic sectors of opportunity).
- Focus on linkages with, or where appropriate, integration of associated or complementary activities to support enterprises linked to development of resource.
- Critical to all the above, is the need for the following:
- Infrastructure development required to achieve primary resource development and associated value-add industries.
- Integrated sector (investment) plans, structuring interventions along spatial priorities.
- Land-legal processes to clear the way for enabling appropriate secure tenure / use-right alternatives that will accommodate the requirements of investors
- Roles and Responsibilities: Management guidelines
- Sand Mining: All sand mining activities must be considered as a special consent application by the municipality.
- Building materials sourced from appropriate locations in an environmentally sustainable manner
- A positive RoD for an EIA and a permit from DME are a pre-requisite for such an application.
- Any operation without an approved EIA or DME permit should be considered illegal.
- Managed construction of legal roads to legal sand mining sites will significantly reduce the incidence of illegal activities and the environmental degradation
- Minerals mining: Coal: Extraction of natural resources for commercial gain at appropriate locations and in an environmentally sustainable manner.
- Applications require full EIA (approved) and permit from DME and special consent of Municipality, including a cost benefit analysis of proposed development.

Coal Mining

For the past decade the municipality has been struggling to extract value out of the coal deposits discovered in its jurisdictional area. Coal mining remains an untapped potential in the area and can contribute immensely to employment creation if it can be properly mined and beneficiated. These coal deposits are located in the Cacadu Town and Indwe area. The mining company Elitheni has over 1800 km2 of mining and prospecting rights in the eastern cape, with approximately 650 km2 of this area in Emalahleni (illustrated on the plan). The company estimates that there is over 1 billion tonnes of coal available for mining. Current mining operations have ceased in the area. The proposed market for this coal was for both local use (e.g. for the hospitals) and for export to Coega and East London.

The benefits of the coal mining in Emalahleni include:

- Job creation
- Improvement in the rail and road linkages
- Spin off in related and subsidiary industries/ businesses e.g. accommodation for workers, mechanics (servicing), transport, security etc
- Cheaper coal available for the local market e.g. the boiler market
- Stimulate the local economy of in the town of Indwe/ Cacadu Town and Dordrecht.
- Improved opportunities in other industries e.g. construction, transport, agriculture, timber and forestry, tourism, hospitality and services.

Sand Mining

Small scale excavation mining occurs near local rivers whereby people or operators adhocly mine sand without permits for purposes of building and brick-making. Sand mining activity is largely unregulated and poses an environmental threat. Intervention from DEDEAT and DME is required to manage and regulate this activity.

Quarrying

Indwe Quarries (IQ) known as Blue Grain Quarries aims to be a leading commercial supplier of building and construction aggregates in the region. Quarrying operations are en-route the R63 between Indwe and Dordrecht. Anticipated indirect benefits from this operation would be the increasing demand for Bed and Breakfast accommodation facilities in the area, as mining activity increases. (IDP 2017-22).

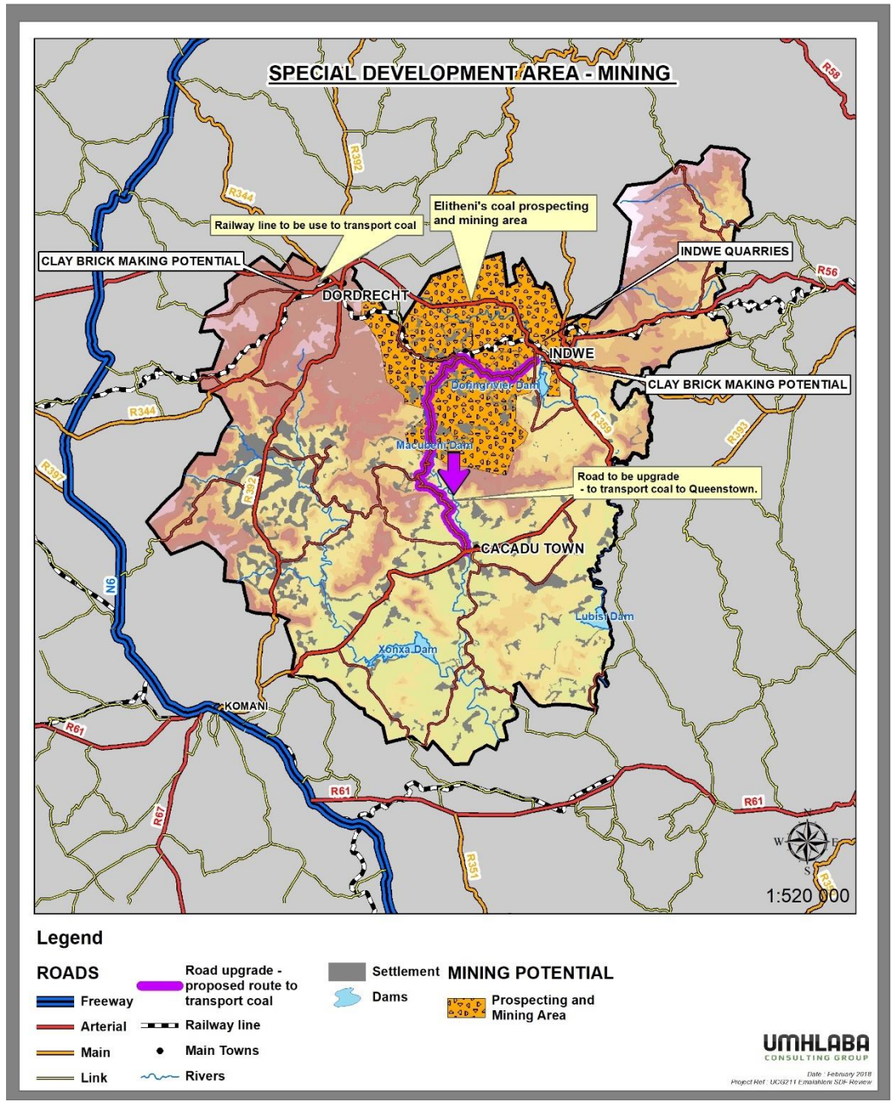
Clay Brick Making

The Municipality is in the process of exploring the potential for small scale clay brick making in Indwe and Dordrecht to supply material for housing projects, intentioned to support the growth of sand mining initiatives. The local municipality is in the process of getting accreditation for clay brick mining and also provides business support in the form of production inputs and infrastructure to clay brick producers. (IDP 2017-22).

Wind Energy Farm: Indwe Wind Farm.

The site of the wind farm consists of over 1,000 hectares of land. It has a wind profile that shows extremely high yields over winter, which is favourable to South African energy needs, as well as high annual yields.

The Project activity will generate up to 148,088 MWh/yr and reducing greenhouse gas emissions by 154,833 tCO2e/yr. The electricity from the wind farm will be fed into the South Africa national grid.



15.10.5 Agricultural Potential

STRUCTURING ELEMENT
Areas of particular economic potential – Agriculture

STRUCTURING INFORMANTS
High potential Agriculture, Potential Irrigation and Potential Forestry

Statement of intent

To secure and protect areas considered as valuable and high potential economic resource areas (with particular characteristics, natural potential or infrastructure capacity) from developments that will render the land less suitable for its optimal development. Through appropriate resource and land use management and investment, such areas need to be enabled to reach optimal potential.

Complementary activities can assist in ensuring the viability of enterprises, and to this end, value addition and compatible uses should be encouraged, provided these do not detract from the core productive / development potential or function of such areas.

Spatial Structuring and Outcome Management

Recognition, clear demarcation and protection of areas with high potential for economic development (in line with main economic sectors of opportunity).

Focus on linkages with, or where appropriate, integration of associated or complementary activities to support enterprises linked to development of a resource.

Critical to all the above, is the need for the following:

- Infrastructure development required to achieve primary resource development and associated value-added industries.
- Civil infrastructure development is a critical element for development of coastal tourism nodes.
- Identification of a clear spatial focus for smallholder agricultural support and identification of central collection/distribution points and priority routes linking collection/distribution points.
- Integrated sector (investment) plans, structuring interventions along spatial priorities.
- Land-legal processes to clear the way for enabling appropriate secure tenure / use-right alternatives that will accommodate the requirements of investors:
- Commercial farming areas within the municipality must be identified and zoned in the Scheme for either intensive or extensive agricultural use or forestry plantations.
- Extensive agriculture includes extensive grazing of livestock, crop production, etc, where there is less impact on the environment, e.g. traffic, noise, dust, odour, run-off, and underground water.
- Intensive agriculture includes land and buildings used for the intensive production of poultry, eggs, livestock, crops, nursery, etc and there is likely to be an impact on the environment in terms of traffic, noise, dust, odour, run-off, and underground water.

Livestock Potential

Beef cattle in the central and south western areas
Sheep in most areas
Currently most of the ELM livestock is farmed on communally owned land under tribal authority on a subsistence rather than commercial basis. Commercial privately-owned farming takes place in the northern areas around Indwe and Dordrecht.

Wool Production

Because of the already existing volume of sheep holding in the rural villages of Cumakala, Ntsinga and Izingqolweni, sheep shearing sheds were built in these areas as part of a wool production, processing and marketing initiative in ELM.

Feedlots

The district currently has only one cattle feedlot (in Elliot). CHDM could potentially increase its animal production from the current 768 000 cattle and 2.7 million sheep per annum. Therefore, the need for the establishment of seven additional feedlots was identified. These feedlots will service strategic geographical clusters of farmers in each LM. A feedlot service and related infrastructure is proposed for Emalahleni. (High Level Agri Park MB CHDM, 2016)

Irrigation Potential

Irrigation potential of a further 5500 hectares at the Xonxa and Lubisi Dams as well as irrigation at the Guba Farms.
Existing irrigation schemes provide potential for the expansion of horticultural activities in the region. However, poor management of the irrigation projects limits their potential to succeed.
The Xonxa Irrigation Scheme like most other irrigation schemes in the District is underutilized but is the subject of a revitalisation programme of the Department of Agriculture.

Crop Production

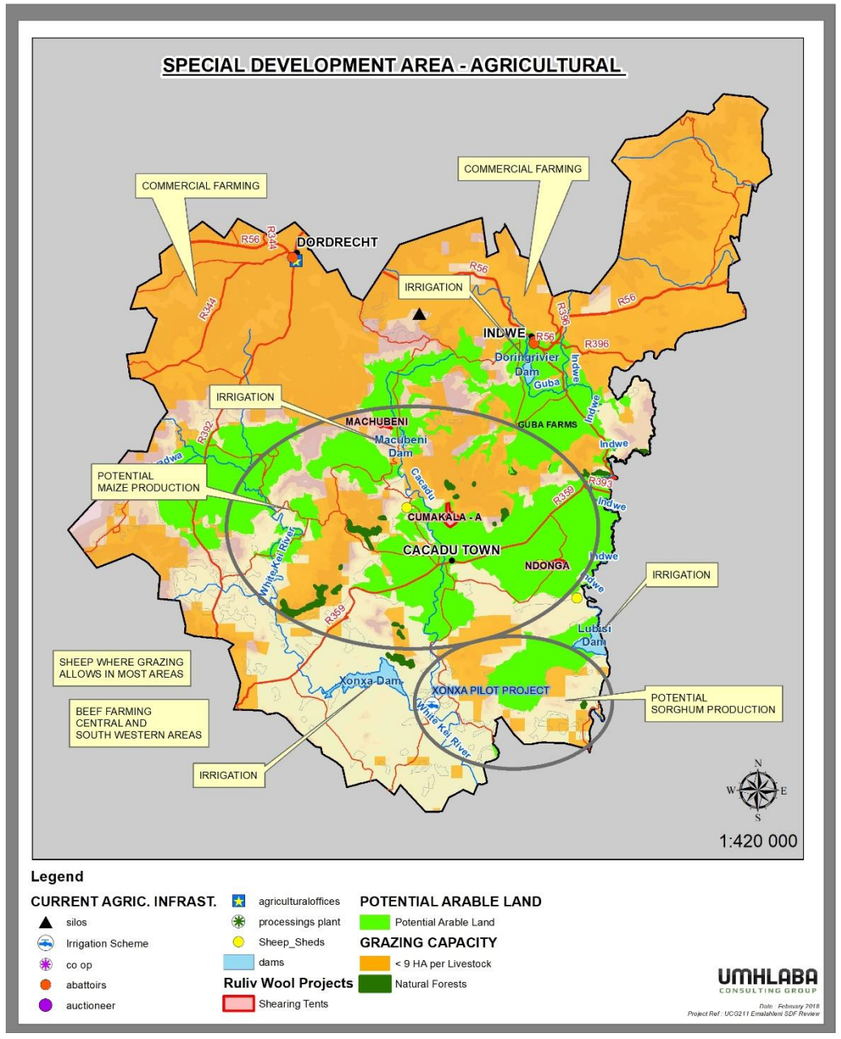
Maize production north of the Xonxa Dam: Maize Yield potential is highest in the eastern part of the Emalahleni Municipality
Sorghum production in the south east: the Nondo corridor (linking Emalahleni and Sakhisizwe) is earmarked for sorghum production
The opportunity for sweet sorghum lies with the capacitation of the Ibuyambo grain milling plant in Emalahleni which is already dedicated for animal feed milling.

Agro Processing: Ibuyambo Milling Plant

The Municipality has facilitated the establishment of a milling plant owned by Lbuyambo Secondary Cooperative which is made up of six primary cooperatives. Development of a Sorghum production programme to provide adequate raw materials for the Lbuyambo Mill. Its objective is to add value to grain produce for markets. There is considerable milling capacity in CHDM. When fully operational, the Ibuyambo Mill in Emalahleni, can process three tons of maize per hour, and has a carrying capacity of 200 000 tons of grain (Agri Parks Initiative in the Chris Hani District, 2016). The current challenge is operationalising the milling plants in the CHDM.

Forestry

Communal plantations occur in the area of Maqhashu, Hala No 1, Mount Arthur and Machubeni. Natural forests are situated in Hala No 1 Long Forest and Cumakala Village Khope Forest. Presently trees are harvested by locals for fire wood.



15.10.6 Tourism

STRUCTURING ELEMENT
Areas of particular economic potential – Tourism

TOURISM AND HERITAGE ROUTES

Potential farm-stay tourism circular route: (linking Dordrecht, Indwe, Cacadu Town and Queenstown

The Ndondo Liberation Heritage Route follows the R356 through Cacadu Town and has the following sites of historical significance to the liberation movement, namely: The Graves of Qondo Hoho and Luvuyo Lerumo, the Maqhashu Village, Queen Nonesi and the Wycliffe Tsotsi Law Offices.

Land Use Guidelines:

- Restricting developments that will render the resource less suitable for its optimal development potential.
- Critical to ensure integration of appropriate resource management criteria in land use guidelines, to capture all relevant criteria (spatial and thresholds-based).
- Likewise, land use criteria for associated or support activities should be tailored with the primary objective of limiting impact on the resource's potential and maximisation of use of existing resource infrastructure.
- Protection of the environment and natural heritage sites is critical.
- Promotion of important historical and cultural sites and events which satisfy the cultural needs of resident communities and enhance tourism development potential.
- Provision/ augmentation of infrastructure to support tourism potentials that exist.

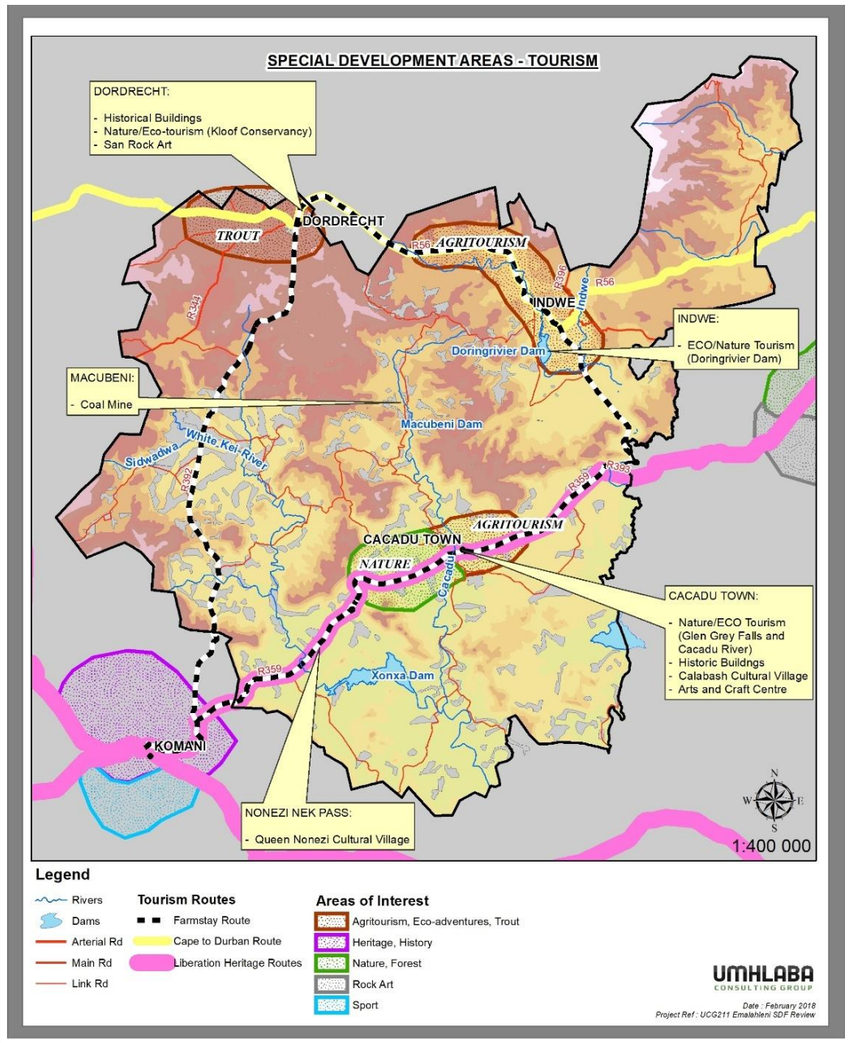
Roles and Responsibilities

It is critical for the integration of multi-sector participation in the management of resources within the region, to ensure that the spatial criteria and thresholds can be incorporated in land use management guidelines. The cooperation between Sector Departments, Municipalities and Traditional Council Structures is critical for firstly achieving consensus and secondly, for realisation of desired management outcomes.

Source: Chris Hani DM Tourism Plan, 2009 and IDP 2017-22.

Nature- Based Tourism Products	
Glen Grey Fall near Cacadu Town	Doornriver Dam at Indwe
The Kloof Conservancy (Hossap dam) near Dordrecht	Fly-fishing resources around Dordrecht
Cacadu River at Cacadu Town	Xonxa Dam
Heritage Tourism	
Macubeni Coal Mine	Andreson Museum at Dordrecht
Churches in Cacadu Town	Victoria Buildings at Dordrecht
Methodist Church at Dordrecht	Burgher Statue at Dordrecht
San Rock Art (Dordrecht)	Abathembu Calabash Cultural Village (Cacadu Town area)
Queen Nonezi Cultural Village at Nonezi Neck (under construction) (R396)	Arts and Craft Centre – traditional beadwork and attire (Cacadu Town)

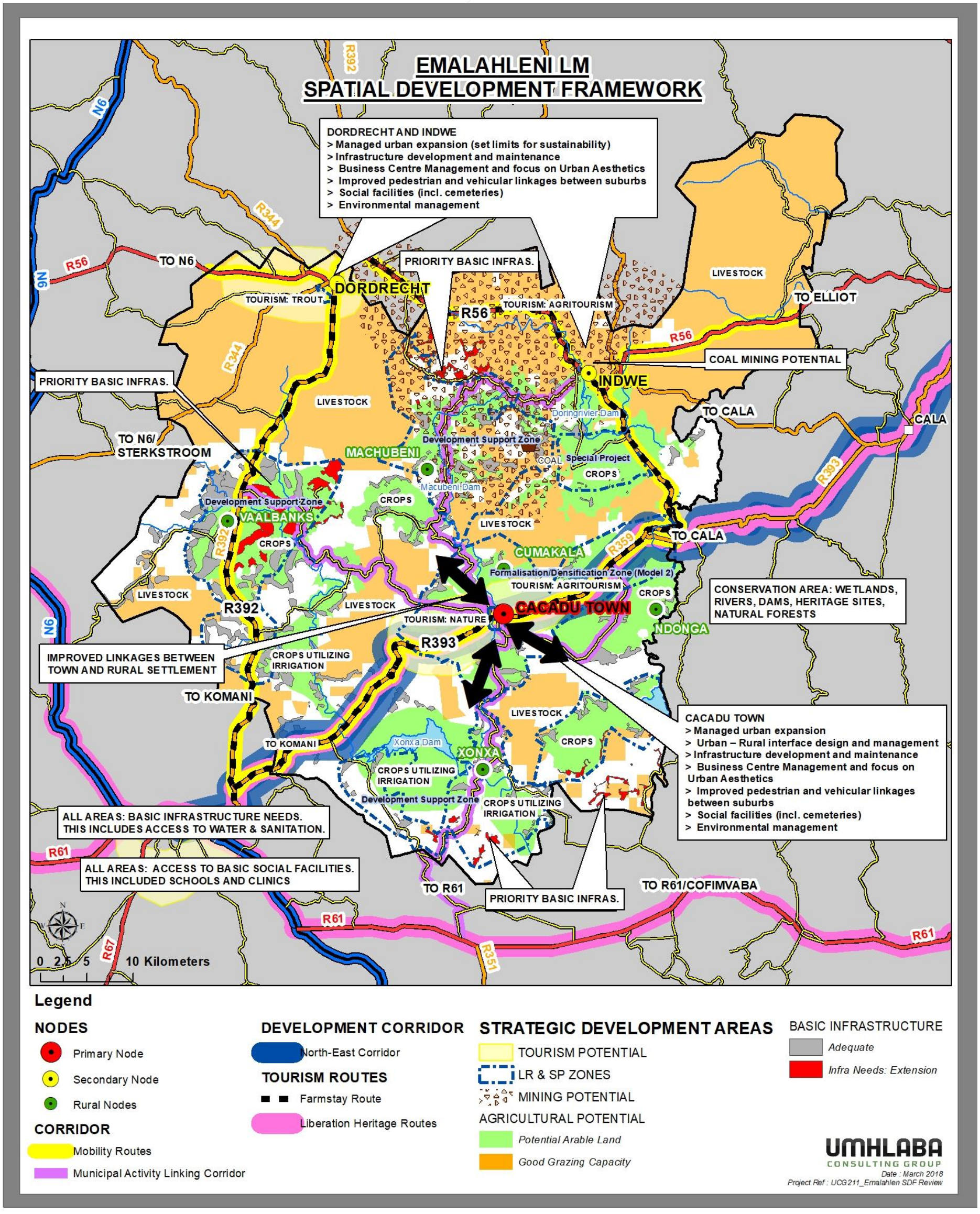
STRUCTURING INFORMANTS
Tourism Routes and Nodes



15.11 OVERALL SPATIAL DEVELOPMENT FRAMEWORK

The Plan below illustrates a composite view of the above structuring elements in an overall SDF Plan for Emalahleni.

Plan 15.4: Emalahleni Spatial Development Framework Plan



15.12 ENVIRONMENTAL ELEMENTS

15.12.1 Introduction

The Environment is a dynamic system and therefore cannot be approached in a prescriptive manner. Environmental Guidelines and Principles must be outlined in order to facilitate responsible and environmentally sustainable development and highlight potential high-risk areas where further investigation (in the form of an EIA or Scoping report) is required. The merit and desirability of each development needs to be individually assessed.

15.12.2 Legislation

The importance of the natural environment has been realized by the present government and over the past 10 years many new legislations, policies and laws have been adopted in order to better manage and conserve our environment. The following governmental legislation and policies are the key informants in the management and protection of the Environment.

- The Constitution Act 108 of 1996
- National Forest Act 84 of 1998 (NFA)
- Air Quality Act
- Biodiversity Act
- National Environmental Management Act, 1998, as amended (NEMA)
- Environment Conservation Act No. 73 of 1989 (ECA)
- Conservation of Agricultural Resources Act (CARA)
- National Water Act 36 of 1998 (NWA)
- Protected Areas Act

It is vital that Government Departments and Local Municipalities are familiar with the legislation in order to comply with and implement the legislation.

15.12.3 High Risk Areas

The following are high-risk areas where development is discouraged.

- Topography: Slopes with a gradient greater than 1:5. This is due to the ecological impacts which may result e.g. soil erosion; slope failure etc.
- Rivers/ Water Source: Development within the 1:100-year flood line or within 100m of the high flood level. Development within 50m of riverbank; with 100m being the preferred distance.
- Vegetation: Afromontane Forest, Specific Grassland areas, Areas containing Plants and Vegetation of Conservation Importance
- Wetland Areas
- Heritage Sites: Rock Art Sites
- Other Areas: The habitat of endangers animals and birds
- Municipal Public Open Space.

15.12.4 Environmental Concerns/ Issues

- Lack of Environmental Policy, Policing and Planning. There is a to lack of internal capacity and human resource skills provision in the Municipalities current structure and are unable to undertake important functions of environmental planning and monitoring.
- Drought
- Roaming animals: due to broken and sometimes non-existent fences along grazing areas and abutting villages to main roads. These animals are often responsible for motor accidents.
- Land degradation including soil erosion
- Depletion of natural resources and therefore the loss of habitat and biodiversity e.g. wetland areas.
- Lack of basic infrastructure leading to various environmental problems e.g. lack of sanitation facilities, formal waste removal etc.
- Water Pollution
- Alien and Invasive Plant Species
- Climate Change

15.12.5 Climate Change

Climate change is regarded by many as one of the most important environmental and developmental issues facing society. The scientific evidence for a rise in global temperature over the past century is unequivocal.

Globally and in the Eastern Cape, more energy is being used than ever before. This is causing the release of the highest quantities of Greenhouse Gasses ever, recorded. Greenhouse gasses lead to global warming, which in turn leads to climate change. Some impacts of climate change that scientists have predicted will affect Southern Africa, including the Eastern Cape, are: -

- More disasters related to severe weather events
- Longer and drier dry periods, leading to drought
- More runaway fires
- More intense flooding
- Sea-level rise
- Threats to food security and human health
- Loss of biodiversity
- Water supply problems
- Related economic impacts

There are two recognised ways of managing for a changing climate:

1. Climate change mitigation (reducing the release of greenhouse gasses to the atmosphere. This is strongly linked to energy consumption and management efforts should focus on promoting energy efficiency, renewable energy, etc.)
2. Climate change adaptation is a more reactionary approach to managing the effects of Climate Change (e.g. adapting to predicted increases in climate change related disasters and adapting to changes in our environmental systems).

Municipalities in their policy planning can make meaningful contributions towards climate change mitigation and adaptation. The following notions are promoted through the objectives of SDFs, which have important implications for climate change:

- Spatial fragmentation has meant that transport distances (especially from home to work) are long and are therefore energy consuming
- The lack of services (e.g. the absence of electricity) in certain areas forces communities to make use of more expensive and unsafe energy sources such as paraffin, fuel-wood, etc. Furthermore, natural resources are in some cases being depleted for energy generation (e.g. fuel-wood)
- Higher density settlements are favourable in reducing transport distances
- Promotion of public transport directly reduces energy consumption per capita
- Avoiding settlement in potential disaster areas (such as floodlines, etc.)

16 IMPLEMENTATION PLAN AND PROGRAMME

16.1 THE CHALLENGE OF IMPLEMENTATION

The principal function of the SDF in relation to the implementation of development programmes and projects in the Emalahleni Municipal area is:

- To "feed" into the IDP planning processes of the Municipality, so as to guide decision making regarding the location and nature of capital projects and the allocation of resources across the Municipal area as set out in the IDP and the Medium-Term Expenditure Framework.
- To highlight certain project actions that are deemed to be relevant and/or significant in the spatial planning and development sphere.
- Through the proposed objectives, strategies and policies, the SDF may be used to identify the need for further policies or by-laws required to facilitate the desired spatial development outcomes of the SDF.

In all the above levels, the central challenge remains the capacity (in terms of financial and institutional resources) of the Municipality to incorporate the Municipal Planning function and the monitoring and evaluation of implementation activities into the mainstream of its day-to-day activities.

16.1.1 Land Administration

An additional challenge for a rural municipality like Emalahleni, relates to practising developmental local governance linked to the integration of various formal and traditional/informal administrative systems. Emalahleni is governed by a variety of planning and land administration legislation. This hampers the effective land use management services by the Municipality and ways to facilitate and fast-track development in certain areas.

Land administration in the urban areas of Indwe, Dordrecht and Cacadu Town (within the boundaries of proclaimed towns), is being undertaken in terms of Land Use Management Ordinance 33 of 1934.

Land administration in rural areas, consists of a range of systems that can be described as ranging from Traditional/Customary to informal.

Rural land administrative system was done away with by government in 1996 with no alternative system introduced to replace it. As a result, traditional councils and community structures continue to play an important role in the allocation of land in parts of the municipality.

In many areas, residents recognise and accept the role of such Traditional Council structures and communities serve as a source of land administration information for many parts of the study area.

However, in certain areas where the traditional system of administration has collapsed and no 'formal" system has been introduced to replace it, has led to situations of uncontrolled and often illegal occupation and development of land.

16.1.2 Land Use Management

The lack of an integrated functioning land administrative system, impacts on effective forward looking spatial planning, resource management and management of land development. This results in:

- loss of investment and resultant economic growth in the area
- failure to address the needs of impoverished rural communities.
- environmental degradation due to sprawling settlements, unlawful developments and mismanagement of land in certain critical areas such as protected natural forests, wetlands and riparian areas.

The range of legal mechanisms that currently guide spatial planning, land use enforcement, environmental land use management and natural resource management in Emalahleni is as follows:

- *Land Use Management Ordinance 33 of 1934 and a set of Scheme Regulations: Apply to urban areas: within the boundaries of proclaimed towns.*
- *SPLUMA: Spatial Planning and Land Use Management Act, 2013, is intended for implementation in both urban and rural areas. However, the Act is limited*

in terms of detailed mechanism to manage/administer land in rural areas. There is no specific legal land use management mechanism in rural areas.

- *Traditional Council structures continue to administer a measure of land use management in rural areas, although limited.*
- *The Transkei Agricultural Development Act (Act 10 of 1966) was repealed without introducing a replacement, resulting in agricultural resource management aspects of this Act being lost.*
- *NEMA: National Environmental Management Act (1998, as amended) and other associated environmental management legislation as outlined in Section 15.12.2 of this document.*
- *National Heritage Resources Act (2000),*
- *The Interim Protection of Informal Land Rights Act, 1996 (IPILRA)*

With the introduction of SPLUMA, Municipalities are now expected to fulfil land use management functions on a wall-to-wall basis (including within areas described above) whilst some aspects relating to land administration functions (such as tenure administration and use-right records) remain unresolved and outside the control of the Municipality.

16.1.3 Spatial Planning and Land Use Management Act 16, 2013 (SPLUMA)

The spatial and land use management framework is guided by the development principles contained in the Spatial Planning and Land Use Management Act (Act 16 of 2013), as follows:

Development Principles and applicability to the study area

The principles applicable to spatial planning, land development and land use management are interpreted and applied to the specific context of the study area in terms of the following:

The principle of spatial justice

- Imbalances must be redressed through improved access to and use of land
- 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. Cooperative governance and consultation with traditional structures / community groups active in certain areas of Emalahleni is critical.
- Enable redress in access to land by disadvantaged communities and persons. This may require consideration of land tenure issues, land administrative systems, access to finance to acquire and develop land, land use rights, etc.
- Include land use management provisions that are flexible and appropriate for the management of disadvantaged areas, informal settlements and former homeland areas – This requires an understanding of land use management practices and needs within the study area to apply appropriate provisions in different areas of Emalahleni.

The principle of spatial sustainability

- Promote land development that is within the fiscal, institutional and administrative means of the Republic – requiring optimisation of resource use (including financial resources), coupled with cost effective and innovative approaches.
- Prime and unique agricultural land must be protected- Requiring identification of such land and ensuring proposals and structuring elements that will ensure:
  - *protection of such areas,*
  - *optimisation of productive use,*
  - *facilitating equitable access and benefit for local residents.*
- Land use measures must be consistent with environmental management instruments - Requiring integration of planning and management systems of various forms of applicable legislation.

- Promote and stimulate the effective and equitable functioning of land markets. Approaches to this may differ between urban and rural parts of the study area, with the need to protect the mutual interests and rights of communities to land.
- Consider all current and future costs to all parties for the provision of infrastructure and social services in land developments, with affordability and sustainability being key considerations for development decisions;
- Promote land development in locations that are sustainable and limit urban sprawl, this will differ according to varying settlement types (urban vs rural) and subject to the varying needs / use for the land;
- To have viable Communities – Joint consideration of realistic long-term outcomes (compared to perceived goals) of settlement typologies and agreement to possible changes in structuring

The principle of efficiency

- Optimise the use of existing resources and infrastructure – Prioritisation of land development; and alignment of varying development programmes, sector plans, to achieve this.
- Minimize negative financial, social, economic or environmental impacts – Requiring decision-making to be guided by clear pre-determined principles, and implementation of performance indicators to monitor and evaluate impacts.
- Efficient and streamlined development application procedures.

The principle of spatial resilience

- Flexibility in spatial plans, policies and land use management systems are accommodated - Ensuring sustainable livelihoods in the poorest and most vulnerable communities

The principle of good administration

- An integrated approach to land use and land development, guided by land use management systems and spatial planning. Requires all sectors and role players to participate and make input during the preparation / amendment of SDF's;
- Timeous adherence to laws relating to land development – requires proactive compliance with legal requirements in planning to implement plans linked to SDF's;
- Transparent processes of public participation that afford all parties the opportunity to provide inputs on matters affecting them in SDF planning processes. Cooperative governance in spatial planning activities, with the inclusion of traditional rural community structures is critical in Emalahleni.
- Processes to ensure policies, legislation and procedures are clearly understood, in order to inform and empower members of the public.

In summary, based on above summary of principles, it is required that – when carrying out spatial planning and/or land use management – the context of each part of the study area is well understood in terms of the following:

- The spatial functional components (urban and rural settlement, agricultural settlement, productive agriculture and forestry use, conservation and sustainable resource use).
- Overlap in, or conflict of, functions of certain areas.
- Who the role players are that are active in decision making and administration in each part of the study area
- Historic and prevailing rights, exclusive rights, communal rights and public rights.
- Traditional and cultural practices that continue to determine the spatial development form and character of the study area.

Utilising the concept of Overlay Zones

One of the new concepts introduced by SPLUMA and incorporated in Section 17 of the Municipality's SPLUMA By-laws is the use of "Overlay zones". These can be described as mapped overlays, superimposed for a particular area (which may include one or more established zoning areas).

These overlays can be used to impose supplementary provisions or restrictions, including restrictions in terms of other legislation or bylaws, for the express purpose of achieving particular spatial or other developmental outcomes. Provisions may include permission for uses in these areas that are otherwise disallowed.

Although the concept of overlay zones is considered to be an extremely useful tool that will allow a measure of flexibility to manage development or use over the rigid provisions of particular land use scheme categories, caution should be applied to encroach on existing rights that may exist.

16.1.4 Institutional Issues

Whilst the Municipality maintains its legislative obligations in terms of the formulation of its annual Integrated Development Plans and various Sector Strategic Plans, it is suggested that, due to the Municipalities limited resources, that the spatial planning function, recognized as a critical developmental activity, be pursued in a partnership approach. As numerous government departments possess varying levels of legal authority/responsibilities in decision making related to land and use thereof, cooperative governance becomes critical in the implementation of spatial development planning and land use decisions.

In this regard, the Municipality should negotiate Inter-Governmental Protocols in relation to (i) Forward Planning assistance; and (ii) Land Use Management support with the following key support organisations: -

- Neighbouring Municipalities
- The Chris Hani District Municipality
- Land is a National constitutional competence wherein the Department of Rural Development and Land Reform (DRDLR) has legal authority. Municipalities have no legal land authority or competence.
- Eastern Cape Dept. of Cooperative Government and Traditional Affairs (EC-COGTA) has certain responsibilities in planning and traditional affairs. The Traditional Leadership and Governance Framework Act, 23 of 2009 (TLGFA) includes 'land administration´ as one of the roles of Traditional Councils.
- The Land Claims Court relating to land claims and settlement thereof.

The Municipality should establish a communication structure to maintain contact and obtain regular information on developmental projects being pursued by outside agencies in its area of jurisdiction. Such agencies would include the following: -

- The Department of Economic Development, Environment and Tourism
- Department of Transport and SANRAL
- DRDLR
- Chris Hani Development Agency

16.2 KEY ACTIONS AND PROJECTS

In review of Emalahleni's Spatial Development Plan (2013-2017), the proposed key actions and projects remain relevant and of priority, in addition to new projects listed below. It is recommended that their status be reviewed during this process to finalise priority actions and projects and establish realistic timeframes for implementation, evaluation and monitoring.

PROJECT	**PURPOSE**
Develop a Roads and Public Transport Upgrade Programme	➢ *To improve access to key centres/services and spatial integration within and between settlement areas.*
ACTIVITIES	**RESPONSIBILITY**
❑ Partner with the relevant agencies responsible for roads development in the Emalahleni area to develop an agreed upon schedule of road development/maintenance as well as Public Transport facility development and upgrade ❑ Incorporate the identification of suitable pedestrian routes (networks) in both urban and rural settlements to facilitate pedestrian traffic within and between settlements, as part of Local SDF Planning Processes. ❑ Ensure that rural roads are prioritised in relation to both critical need (health and safety issues indicate first priority) and then to development opportunity (it is important to ensure that areas where development initiatives are underway are properly linked by passable roads).	Emalahleni LM; CHDM; DoRT Traditional Authorities Community Structures
PROJECT	**PURPOSE**
Conduct Local Settlement Area and Ward-based Spatial Development Plans	➢ *To identify / clarify spatial relationships between settlements and land use, (especially productive land uses) and to resolve any land tenure issues.* ➢ *Identify needs and economic opportunity/potentials* ➢ *To guide land use management and define rural settlement edges to manage growth* ➢ *Create a spatial framework for the implementation of development projects, programmes and identification of strategic development areas/ nodes.*
ACTIVITIES	**RESPONSIBILITY**
❑ Prioritise areas where settlement consolidation and spatial planning should be undertaken in identified areas and /or development nodes. Rural nodes include: Ndonga and Cumakala. Local spatial planning has been conducted in Xonxa, Vaalbank and Machubeni. ❑ Seek to resolve all land tenure issues in the identified areas and invest in required infrastructure networks to unlock value/potential. ❑ Initiate Business Planning to apply for funding of Local Planning processes of settlement areas and ward-based plans.	Emalahleni LM Chris Hani District Municipality Traditional Authorities DRDLR; DEDEA, DARD
PROJECT	**PURPOSE**
Conduct a Revitalization of Irrigation Schemes Programme	➢ *To stimulate agricultural economic potential in these areas*
ACTIVITIES	**RESPONSIBILITY**
❑ Initiate a Revitalization of Irrigation Schemes Programme, supported by associated local spatial planning and infrastructural requirements: Xonxa, Lubisi, Doringriver, Machubeni Dams.	Emalahleni LM Chris Hani Development Agency, DRDLR; DEDEA
PROJECT	**PURPOSE**
Develop a Rural Land Use Management Plan/System	➢ *To ensure sustainable use of land, protect the areas natural resources, manage settlement growth and make best use of potential productive land for economic growth and in support of subsistence livelihoods.* ➢ *To prevent spontaneous unregulated settlement expansion*
ACTIVITIES	**RESPONSIBILITY**
❑ Commission required specialists to develop a more detailed Plan that identifies spatially all land that is presently un-settled and that is either conservation-worthy or has potential for agriculture or forestry development, using the direction of the EC Biodiversity Conservation Plan. ❑ Ensure the implementation of a basic Land Use Management System in rural areas	Emalahleni LM; CHDM; DEDEA; DARD; DRDLR Traditional Authorities

PROJECT	PURPOSE
Develop a Title Adjustment Programme in the towns	➢ *To attend to the updating of title deeds which reflect details of absent owners who are not traceable.* ➢ *To develop/update a data base to improve municipal revenue collection* ➢ *To identify and access land parcels that can be better utilized for residential / business expansion* ➢ *To establish and mitigate against illegal occupation of land in urban towns.*
ACTIVITIES	**RESPONSIBILITY**
❑ Initiate a land tenure and rates audit in the Towns ❑ Apply the relevant Town Planning Scheme in the towns rigorously	Emalahleni LM
PROJECT	**PURPOSE**
Education Facilities Upgrade Programme	➢ *To address the need for youth development and skills development in the community.*
ACTIVITIES	**RESPONSIBILITY**
❑ Prioritize business plans/feasibility studies, as they relate to upgrading key education institutions (Agricultural Schools, ECDC's) and providing necessary services/infrastructure (roads access, other basic services) to these institutions. ❑ Identify priority areas for intervention, guided by local spatial planning processes	Emalahleni LM DOE; CHDM
PROJECT	**PURPOSE**
Develop an agricultural support programme	➢ *To provides agricultural extension officers / support services to local rural farmers to support sustainable subsistence lifestyles and for possible supply of produce to local markets.*
ACTIVITIES	**RESPONSIBILITY**
❑ Discuss with key stakeholders and initiate the development of an agricultural support programme	Emalahleni LM; DRDLR; DLGTA; DARD; DEDEA
PROJECT	**PURPOSE**
Rural Cemeteries Assessment Study	➢ *To formalise and provide ease of access to cemeteries in rural areas* ➢ *To mitigate against poor location of informal cemeteries that pose as health risks to people and are harmful to the environment* ➢ *To mitigate against encroachment of informal settlements on good arable land / settlement land*
ACTIVITIES	**RESPONSIBILITY**
❑ Discuss with key stakeholders and implement the development of a rural cemetery assessment study ❑ Consideration to be given to cultural practise and accessibility by rural communities.	Emalahleni LM Chris Hani DM; DEDEA; DARD; DLGTA
PROJECT	**PURPOSE**
Cacadu Town and Indwe Stormwater Implementation Project	➢ *To mitigate against flooding/water run-off into the towns.*
ACTIVITIES	**RESPONSIBILITY**
❑ Need to define and formalise stormwater infrastructure in the towns and along the urban edge.	Emalahleni LM
PROJECT	**PURPOSE**
Cacadu Town (former Lady Frere) Pedestrian Crossings Upgrade Programme	➢ *To improve access from residential suburbs separated from the urban centre (CBD) by the railway line.* ➢ *To ensure the safety of pedestrians crossing at unsafe, congested level crossings.*
ACTIVITIES	**RESPONSIBILITY**
❑ To consider the best location for pedestrian crossings in the city giving consideration to local spatial planning guidelines, settlement growth and business expansion zones.	Emalahleni LM DoRT
PROJECT	**PURPOSE**
Cacadu Town: Business District Precinct Plan	➢ *To create spatial guidelines and proposed land use/ urban design of a business district in Cacadu Town* ➢ *To improve the business district in Cacadu Town*
ACTIVITIES	**RESPONSIBILITY**
❑ Initiate the implementation of a Business District Precinct Plan	Emalahleni LM
PROJECT	**RESPONSIBILITY**
❑ Commission the formulation of a Local SDF & Urban Design Guidelines for the town of Cacadu (Former Lady Frere).	Emalahleni LM

16.3 MONITORING OF IMPLEMENTATION

Finally, to ensure that the proposals contained in this SDF Review (2018) are acted upon, it is proposed that the office of the Emalahleni Municipal Manager initiate a process to identify a person to report back to the relevant Standing Committee of Council on a quarterly basis regarding the following aspects: -

1. The application of the SDF and the Land Use Management Guidelines contained therein;
2. The implementation of projects and related activities as proposed in terms of the Spatial Planning, Land Use Management and Development Feasibility Programmes, including the allocation of funding and/or the sourcing of funding for individual projects.

16.4 CONCLUSION: FUTURE REVIEWS

In conclusion, the following is proposed regarding the need to Review the Emalahleni SDF from time to time: -

- It is proposed that the Emalahleni SDF be reviewed every five years, in the year leading up to the initiation of the next Integrated Development Planning cycle. In this regard, the next full Review of the Emalahleni SDF would be programmed for **2022.**
- In the interim, the SDF should be amended as and when necessary when a material change in circumstance occurs. This is likely to apply most to the Implementation chapter as and when individual projects are completed and new projects are identified as priorities.

17 REFERENCES

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